

Unit 3

**“The Ancient Hebrews
(& Attentiveness)”**



Grades

0 - 6

SCIENCE

Science & Technology (Prep to Grade 6)

Unit = The Ancient Hebrews (& Attentiveness)

SUMMARY:

This Prep–Year 6 Science and Design Technologies course, **The Ancient Hebrews (& Attentiveness)**, develops the character quality of **attentiveness** alongside scientific knowledge, inquiry skills and practical learning. Students progressively learn to slow down, observe carefully, recognise patterns and changes, form and test hypotheses, record evidence, learn from unsuccessful investigations, and use their senses thoughtfully. The course moves through eight interconnected areas that springboard from the Attentiveness Character theme – **nature observation; observation in scientific experiments; testing hypotheses; ears, sound and music; eyes and seeing; predator and prey; tracking, trapping and Aboriginal bush science; and birds** – using engaging informational stories, narration, differentiated reflective questions, nature study, experiments, investigations, creative design activities and Science Journal work. Practical experiences include investigating sound and vibration, animal senses and survival strategies, reading signs in the landscape, observing birds and natural patterns, and applying scientific observation to real-world situations. Throughout the course, a Christian worldview connects careful study of creation with knowing its Creator, encouraging students to see attentiveness not simply as a scientific skill but as a habit of listening, noticing, exercising wisdom and caring responsibly for the world and others. The unit culminates in review and assessment activities – including a **Nature Detective Challenge, “What I Learned” poster or mini-book, and Topic Trail review** – which draw together knowledge and skills accumulated across the eight topics while allowing students of different ages to demonstrate their learning appropriately.

RESOURCES:

All the information you need is included within the **informational story** in each lesson plan. The hands-on or creative activities are designed to use materials you will likely have already in your home, but you should maintain some **art and craft materials**. Each child will also need a **Science Journal** (i.e., a lined exercise book or Botany book for nature study notes, writing responses to questions, and writing activities). It is also helpful to have a good **dictionary**.

Three lessons each week, with hands-on activities and extra research will keep the children fully engaged. To enjoy a richer learning experience, you could supplement the lessons with extra books about topics of interest that arise during the course.

Some suggestions for extra reading include but are not limited to...

- to be announced...

IMAGES COPYRIGHT:

Unless otherwise indicated, all images are sourced from www.commonswikimedia.org

Prior to starting each week, review the recommended resources.

Contents

Topic	Description	Page
Topic 1	Nature Observation	
Topic 2	Observation in Science Experiments	
Topic 3	Testing Hypothesis	
Topic 4	Ears, Sound, Music	
Topic 5	Eyes, Seeing	
Topic 6	Predator & Prey	
Topic 7	Tracking & Trapping, Aboriginal Bush Science	
Topic 8	Birds	
Topic 9	Review	
Assessment:		

Lesson 1: Looking Closely at Creation

Topic: Nature Observation

Character Focus: *Attentiveness* (Being aware, listening, focussing carefully)

A) Introduction

Parent/Tutor Says:

"Today we're going to practise one of the most important skills in science and in life – *observation*. That means noticing things very carefully. Did you know that God loves it when we pay attention? The Bible even says, 'Be still and know that I am God' (Psalm 46:10). And when we look closely at nature, we learn more about how amazing God is.

This lesson is called **Looking Closely at Creation**, and we'll hear a story, talk about what we've learned, and then do a fun activity outside or inside. Are you ready to pay close attention?"

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Eli and the Lizard"

Eli liked playing outside. He especially loved to run, jump, and shout. Every morning after breakfast, he would zoom through the back door like a race car, stomping through leaves and charging around the gum trees. The birds usually flew off in fright, and the insects vanished before he even saw them.

But one day, Nanna gave him a different kind of challenge.

"Eli," she said, handing him a small wooden stool, "I want you to try something new today. I want you to take this stool out into the garden and sit very still. No running. Just watching. Ten minutes."

Eli frowned. "Ten minutes? That's forever!"

Nanna smiled. "It only feels long because you're not used to being still. But if you pay attention – *really* pay attention – you'll start to see things you've never seen before. Sit quietly and tell me later what you find."

So, with a sigh, Eli carried the stool out to the garden and plonked it down near the rocks and long grass. For the first minute, he squirmed and looked around, wondering what the point was. A bee buzzed past his head. A fly landed on his knee.

Then... something flickered near the rock pile.

It was fast. Small. Silent. Eli squinted.

A lizard!

It was almost invisible at first. Its mottled brown and green skin made it look just like a curled-up leaf. But it moved again, darting forward, then pausing completely still.

Eli held his breath. The lizard had tiny claws, a flickering pink tongue, and a scaly tail that shimmered in the sun. Its body puffed ever so slightly as it breathed. One of its eyes turned – just a little – looking right at him.

The lizard tilted its head and crept forward. Eli remembered what Nanna had said yesterday: “Lizards *smell* the world with their tongues.” Sure enough, the lizard kept tasting the air.

Suddenly, it did something strange. It dropped its front legs and did a quick set of **push-ups** on the rock. Eli nearly laughed out loud but covered his mouth just in time. The lizard stilled again and basked in the sunlight, completely at peace.

Eli stayed perfectly still. A group of ants scurried beneath the lizard’s perch. A small butterfly fluttered near the flowers. The longer he sat, the more alive the garden became. He could hear the rustle of leaves, the tapping of branches in the wind, and the distant call of a kookaburra.

When the ten minutes were up, he ran back to Nanna, eyes wide.

“Nanna! I saw a lizard! It was right there! It was doing push-ups and licking the air and everything!”

Nanna laughed gently. “Didn’t I tell you? God’s world is full of surprises when you’re *still enough* to see them.”

“But it was just a lizard,” Eli said, still catching his breath.

“Oh no,” she said with a knowing smile. “You saw more than a lizard. You saw camouflage. You saw breathing. You saw God’s design. You saw *life*. That’s what it means to observe.”

The next day, Eli asked if he could borrow her *Nature Notebook*.

This time, he sat quietly beneath the tall gum tree. He wrote the date at the top and drew a picture of what he saw: a magpie tugging at the grass, a spider repairing its silken web, and tiny red insects crawling along a log. He wrote down colours, shapes, patterns, and movements.

Every day that week, he found something new. A moth that looked like a leaf. A trail of caterpillars marching in a line. A beetle with shiny green armour. Once, he even saw a praying mantis that seemed to sway with the breeze like a twig.

He started listening, too. He heard wind in the trees, buzzing in the bushes, and even the low hum of his own breathing. Once, he heard nothing at all – and it made him think.

“I never noticed silence before,” he told Nanna.

“That’s the best time to listen for God’s whisper,” she replied. “He often speaks in the quiet. You know, Elijah didn’t hear God in the wind or fire, but in a still small voice.”

Eli thought about that a lot.

Sometimes, as he sat in the garden, he didn’t just notice nature – he noticed himself. His thoughts, his feelings, even ideas that seemed to come out of nowhere. He began praying quietly during his quiet sits. Nothing fancy – just thank-yous and questions, and once or twice, a gentle feeling of peace.

One evening, he wrote in the notebook:

“I saw a moth, but it didn’t flap. It just sat. Like it was listening, too.”

By the end of the month, Eli wasn’t just observing nature – he was learning how to be still, to be patient, to be *attentive*. And he realised something important.

“The world is full of hidden treasures,” he told Nanna. “But you only see them when you’re still enough to notice.”

Nanna gave him a squeeze. “And God is one of those treasures, Eli. Sometimes we don’t hear Him because we’re too busy running. But when we slow down... we find Him in the quiet.”

Eli still loved to run and shout. But now, every day, he also took time to look closely at creation – and listen for the voice of the Creator.

C) Narration

Parent/Tutor Says:

"Now it’s your turn. I want you to tell me as much of the story as you can remember – in your own words. You can start at the beginning, or from your favourite part. Tell me all the things you can recall about Eli, the lizard, and what he learnt."

(Let the child or children narrate. Prompt gently if needed. For group settings, children can take turns or work together.)

D) Activity

Choose one or both of the following activities:

Option 1: Outdoor “Still & Spot” Challenge

- Sit silently outside for **5–10 minutes**.
- Each child chooses one spot and stays still.
- Encourage them to **list or draw** everything they see, hear, or smell (e.g. insects, birds, flowers, sounds).
- Share their findings with the group or parent at the end.

Option 2: Nature Tray Sorting

- Collect 6–10 small nature items (e.g. leaf, rock, feather, seed, bark, petal).
 - Spread them on a tray.
 - Cover the tray and give students 30 seconds to look before it's covered again.
 - Ask: *What do you remember?* Then ask for descriptive details: colours, shapes, patterns.
 - Discuss which item was hardest to remember and why.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What animals or insects have you seen near your house?
- How can we use our eyes and ears to learn from God's world?
- When is it hard to be still and quiet?

ii) Middle Primary Students (Ages 8–10):

- Why did Eli see more when he sat still?
- What do you think attentiveness means?
- What helps you listen more carefully – to people or to God?

iii) Upper Primary Students (Ages 11–12):

- How does being attentive help you in other subjects or in life?
 - Why might God want us to observe nature carefully?
 - Can you think of a time you missed something important because you weren't paying attention?
-

F) Biblical Connection & Wrap-up

Bible Verse:

"Be still, and know that I am God." – Psalm 46:10

Parent/Tutor Says:

"God made an amazing world, and when we slow down and pay attention, we can learn a lot – not just about creation, but also about Him. He speaks in quiet ways too – through our thoughts, our conscience, the advice of others, and His Word."

Reflection Question:

- What's one way you can practise being more attentive this week – either with your family, your schoolwork, or listening to God?
-

Lesson 2: Patterns in Plants and Animals

Topic: Nature Observation

Ages: 5–12

Character Focus: Attentiveness (Noticing God's order in nature; being focused, aware, and observant)

A) Introduction

Parent/Tutor Says:

"Last time we learnt how to be still and observe creation – like Eli and the lizard. Today we're going to go a step further. We're going to look for patterns. Did you know God loves patterns? He created leaves with veins, animals with spots and stripes, and even our bodies follow patterns – like our heartbeat and breathing.

When we learn to notice these things, we start to understand how much order and beauty God put into the world. Let's begin with a story that will help us practise being attentive."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "The Mystery of the Patterns" (Word Count: 1033)

Mila loved drawing. She would sit for hours with coloured pencils, sketching shapes and swirls across the page. One day, her Dad noticed her drawing a butterfly with beautiful symmetrical wings.

"That's a great pattern," he said. "Did you know butterflies have patterns that are the same on both sides?"

Mila nodded. "It's called symmetry," she said proudly. "I learnt that in nature class."

Dad smiled. "Want to see more patterns? Let's go on a Pattern Hunt."

Outside, the world seemed like an art gallery full of God's designs. Mila and Dad began near the gum trees. Mila picked up a leaf and held it to the light.

"Look!" she said. "It's got little lines in it."

"Those are called veins," Dad explained. "They carry water and nutrients through the leaf, just like our veins carry blood."

Mila turned the leaf over. "They're the same on both sides – like a mirror!"

Next, she spotted a fern. "This plant has leaves in a row, and they're all the same shape!"

“That’s a repeating pattern,” Dad said. “Each little frond looks like a tiny version of the big leaf. That’s called fractal design – and God does that in snowflakes, trees, even our lungs!”

They walked further and found bark that had diamond shapes, a flower with perfect five-point petals, and a spider web with a spiral so perfect it looked like it had been drawn with a ruler.

Suddenly, Mila shouted, “Spots!”

A ladybird had landed on her arm. Its red back was covered with neat black spots. “That’s a pattern too,” she said. “And there’s symmetry again!”

Dad nodded. “Even insects have a sense of order.”

As they walked toward the creek, they saw ripples in the water, fish with stripes, and a dragonfly with wings that shimmered in the sun.

“But why does everything have patterns?” Mila asked.

Dad knelt beside her. “Because God is a God of order, not chaos. Patterns show us that the world was created with care and design. That’s why scientists can study it, and why we can appreciate its beauty.”

Mila thought for a moment. “So when I draw, and I make patterns, I’m copying God’s creativity?”

“Exactly,” Dad said. “You’re made in God’s image. And when you notice patterns, you’re learning to see things like He does – carefully and joyfully.”

Later that afternoon, they sat on a log and watched ants marching in a perfect line. Some carried crumbs, others tiny twigs. “Even ants follow a pattern!” Mila laughed.

As the sun dipped lower, they noticed shadows stretching long across the ground. “Look at how our shadows change as the sun moves,” said Dad. “That’s a time pattern. Every day, the sun rises and sets, just like God designed it in the beginning.”

At home that night, Mila filled her journal with new discoveries. She drew the leaf veins, the spider web, and the stripes on the fish. She even wrote a poem:

God made the flowers, He made the trees,
He made the beetles and buzzing bees.
With dots and stripes and starry skies,
He made it all with wondrous eyes.
And when I stop to look and see,
I see His patterns calling me –
To look with love, and not rush by,
To notice beauty, low and high.

The next morning, she sat quietly on the porch. She didn’t even bring pencils. She just watched. A moth’s wings opened like a fan. A bird sang a repeated three-note song. The wind moved the leaves in swaying rhythm.

She noticed how the petals on a daisy were perfectly spaced. She counted the points on a star-shaped seed pod and traced spirals in a snail’s shell. She was beginning to feel that the whole world whispered something about its Maker.

That evening, she told her Dad, “God’s patterns are everywhere – if you’re attentive enough to see them.”

C) Narration

Parent/Tutor Says:

"Now I want you to tell me what you remember from the story. What happened on Mila's Pattern Hunt? What did she learn about God's creation? Tell it in your own words."

(Let children narrate. For groups, they can take turns, or one child begins and others add to it.)

D) Activity

Choose one or both of the following activities:

Option 1: Pattern Hunt

- Head outdoors with a magnifying glass or camera (optional).
- Students search for natural patterns: on leaves, bark, flowers, insects, clouds, etc.
- Either draw or list what they find.
- Discuss what kind of patterns they saw: symmetry, spirals, repeating shapes, or lines.

Option 2: Make Your Own Nature Patterns

- Use leaves, seeds, pebbles, sticks, or flower petals to create a repeating or symmetrical pattern on paper or the ground.
 - Optional: Take a photo to add to a nature journal or notebook.
 - Discuss how making a pattern feels – what kind of attention does it take?
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What patterns did Mila find?
- Can you name something God made that has spots or stripes?
- Why is it good to stop and look carefully?

ii) Middle Primary Students (Ages 8–10):

- What do patterns in nature tell us about God?
- How does being attentive help us see things others might miss?
- When do you find it hard to pay attention?

iii) Upper Primary Students (Ages 11–12):

- Why do you think God used patterns in nature?
 - How does observing patterns help scientists and artists?
 - Can you think of a time when paying close attention helped you solve a problem or notice something important?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“For since the creation of the world God’s invisible qualities – his eternal power and divine nature – have been clearly seen, being understood from what has been made...” – Romans 1:20a

Parent/Tutor Says:

"This verse tells us that when we look at creation carefully, we learn something about God Himself. The patterns we see remind us that God is thoughtful, creative, and orderly. When we pay attention, we honour the Creator."

Reflection Question:

- What is one pattern in God’s creation that amazed you today? How can you show more attentiveness at home, in your work, or when listening to God this week?

Lesson 3: What's Out of Place?

Topic: Nature Observation

Character Focus: *Attentiveness* (Being alert and aware; noticing what doesn't belong)

A) Introduction

Parent/Tutor Says:

"Over the past two lessons, we've learnt how to be still and observe creation – like Eli and the lizard – and how to notice patterns in nature, like Mila did. Today we're going to sharpen our observation skills even more by learning to notice when something doesn't belong – when something's *out of place*."

This is a really important part of science! Sometimes scientists make incredible discoveries by noticing something unexpected. And in life, God wants us to be alert too – to what's right, what's wrong, and what needs our care.

Let's begin with a story about a boy named Jonah and a rather unusual discovery..."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Jonah and the Feather That Didn't Belong"

Jonah was an observer. He didn't always talk much, but he *noticed* things – small things that others missed. He could spot a lizard's tail vanishing under a bush, or a mushroom popping up where there hadn't been one the day before.

One warm Saturday morning, Jonah was helping his mum hang washing on the line when something caught his eye. Behind their backyard, near the gum trees, a splash of blue glittered in the sun.

A feather.

Not an ordinary brown or grey feather. This one was bright turquoise with golden flecks. It shimmered like it belonged to a treasure chest rather than a tree. Jonah picked it up gently and turned it over in his fingers.

"Mum," he called, "what kind of bird is this from?"

His mum paused, squinting at the feather. "That's not one of our local birds. Maybe it escaped from someone's aviary?"

That idea lit a spark in Jonah's mind. He raced inside, grabbed his *Field Guide to Australian Birds*, and flipped through the pages. He compared colours, patterns, and tail shapes. Nothing matched perfectly – until he searched online with Mum's help.

There it was: **Golden-shouldered Parrot**. A rare bird from far-north Queensland.

“But we live in Victoria,” Jonah muttered. “What’s it doing here?”

Now he was on a mission. He gathered his binoculars, his nature journal, and a snack, and set out to the bushland near the creek. It was the same area where he and his friends sometimes played – but this time, he wasn’t playing. He was watching.

He sat still beneath a flowering wattle tree. He wrote down every bird he saw. Fairy-wrens, lorikeets, a willy wagtail... but no sign of the mysterious parrot.

The next day, he came back. This time he brought a map and marked the spot where he’d found the feather. He set up a little “watching post” made of sticks and leaves and waited. Nothing. But he didn’t give up.

On the fourth day, just as the sun was getting low, he heard a strange call – different from any local bird. A sharp, chirping squawk echoed from the scrub. He turned slowly.

There it was.

A flash of turquoise. Bright orange belly. Golden shoulders gleaming.

The parrot!

Jonah held his breath, watching it hop along a branch, nibbling seeds. He jotted down a quick sketch, took a careful photo, and slowly backed away. He knew this bird wasn’t meant to be here – it might be lost or in danger.

That night, he and Mum emailed a local wildlife rescue. The next day, a ranger named Jasmine arrived. She looked at Jonah’s map, checked his photos, and smiled.

“You’ve found something special,” she said. “That bird probably escaped from a breeder or sanctuary. It won’t survive the cold winter here.”

With Jonah’s help, the rangers were able to locate the parrot, carefully catch it with a soft net, and return it to a wildlife shelter where it could be cared for.

As they drove away, Jasmine said, “Not everyone notices what’s out of place. You did. That kind of attentiveness could make you a brilliant scientist – or someone who helps the world in a hundred other ways.”

That evening, Jonah sat on the back step with his Bible. He turned to a verse his dad had read aloud the night before:

“Be alert and of sober mind.” – 1 Peter 5:8

He smiled. Being alert had helped save a bird. But he also thought about other things that might be “out of place” – a friend who looked sad, a stranger who needed help, even a bad thought that didn’t belong in his heart.

“God,” he prayed quietly, “Help me notice the things that matter.”

And the next time Jonah walked through the bush, he wasn’t just looking at feathers – he was looking with his heart, attentive to the world, and to the God who made it.

C) Narration

Parent/Tutor Says:

"Can you tell me what happened in the story of Jonah and the feather? Tell me everything you can remember – especially what Jonah noticed and what he did about it."

(Encourage detail. You may prompt with "What did he find?" or "Why was it important?")

D) Activity

Choose one or both of the following activities:

Option 1: "What's Missing or Out of Place?" Nature Challenge

- Go outside and observe a familiar natural space.
- Students look for something that:
 - Has changed
 - Doesn't belong
 - Looks damaged or unusual
- Record findings (drawing or notes).
- Discuss: Why is it important to notice these changes?

Option 2: Create a "Spot the Difference" Nature Art

- Draw or paint a natural scene (e.g. bushland, garden, or beach).
 - In one version, include a few things that are "out of place" (e.g. blue leaves, square clouds, or a missing flower).
 - Ask others to spot what's different or doesn't belong – just like Jonah did.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What did Jonah find that was unusual?
- Why was it important that he paid attention?
- What's something strange or new you've noticed lately?

ii) Middle Primary Students (Ages 8–10):

- Why do scientists and rangers need to notice things that are out of place?
- What might happen if no one was paying attention to nature?
- Can being attentive help you in your family?

iii) Upper Primary Students (Ages 11–12):

- How can attentiveness help you notice when someone needs help?
 - Can you think of a time when being observant helped you or someone else?
 - Why do you think the Bible tells us to be "alert and of sober mind"?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Be alert and of sober mind.” – 1 Peter 5:8

Parent/Tutor Says:

"God tells us to be watchful – not just in nature, but in life. He wants us to notice what's good, what's wrong, what needs care, and what doesn't belong. That takes a special kind of attentiveness. It's a gift, and it's something we can grow in."

Reflection Question:

- Is there something in your world – at home, at school, at clubs, or friendships – that might be “out of place” and needs your attention? How can you practise being more alert this week?

TOPIC 2	OBSERVATION IN SCIENCE EXPERIMENTS

Lesson 4: Watch What Happens

Topic: Observation in Science Experiments

Ages: 5–12

Character Focus: Attentiveness (Carefully watching, staying focused, and not rushing)

A) Introduction

Parent/Tutor Says:

"Today's lesson is about what scientists do best – they watch what happens!

When you do an experiment, you don't just guess or rush – you slow down and look carefully. You use your eyes, ears, and sometimes even your sense of smell or touch (carefully!). That's how discoveries are made.

God gave us senses so we could notice the world He made and learn from it. Jesus even told His followers, 'Watch and pray.' It's part of being wise, not just in science, but in life.

Let's start with a story about a girl named Tilly who learns to pay attention in a brand new way..."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Tilly and the Fizzy Fizz Test"

Tilly was curious. She asked questions all day long – some big, some small, some very strange. Her favourite kind were science questions. She liked to figure out how things worked.

One afternoon, she saw a video online of someone doing an experiment: they poured a spoonful of white powder into a clear liquid, and – BOOM! – a fizzing mountain of bubbles erupted from the glass.

"Mum! Can we do that one?" she asked.

Mum chuckled. "Let's try something safer – how about a vinegar and bicarb soda reaction?"

"Yes!" said Tilly, running to the kitchen.

Mum laid out a tray with a bowl of vinegar, a teaspoon of bicarb soda, a small cup, and an empty notebook. “Now,” Mum said, “you’re going to be a scientist. And that means you have to do more than mix things – you have to **watch carefully** and notice everything.”

Tilly nodded solemnly. “Okay. I’ll be a proper scientist.”

She sat up straight, poured the vinegar into the cup, and tipped in a spoonful of bicarb.

Fizz!

Bubbles danced up and spilled over the edge of the cup, fizzing and foaming across the tray.

“Whoa!” she squealed. “It’s alive!”

“Now slow down,” said Mum. “What do you see, hear, and smell?”

Tilly leaned in. “It’s making a hissing sound... it smells kind of sharp, like pickles... and the bubbles are white, but the liquid is a bit cloudy.”

“Write it down,” Mum encouraged.

So Tilly scribbled in her notebook. But she was already thinking of the next test. “What if I add food colouring?”

She added a drop of red to the vinegar. “Ready?” She tipped in the bicarb again. This time, the foam was pink!

“And what if I add dishwashing liquid?” she asked. She tried again – red vinegar, detergent, bicarb – and got slow, thick foam that oozed instead of fizzling.

The bubbles grew higher. “That’s **so different!**”

All afternoon, she tested new things:

- Warm vinegar instead of cold
- More bicarb, less bicarb
- A tall glass vs. a wide bowl
- Stirring vs. no stirring

Each time, she wrote her observations carefully:

- “The warmer the vinegar, the faster it fizzes.”
- “Detergent makes it foam higher and slower.”
- “More bicarb = more bubbles, but too much makes a mess!”

She even tried repeating some tests to be sure they worked the same way again. “Scientists repeat things to check they’re right,” she told Mum wisely.

When Dad got home, Tilly showed him her notebook – four pages full of notes, drawings, and colour-coded results.

“I thought science was about mixing things,” she said. “But it’s really about **watching** and writing and thinking.”

Dad nodded. “Exactly. People who pay close attention become great scientists. But they also become wise. They notice things other people miss.”

That evening, as they read the Bible together, Dad found a verse:
“Jesus told His disciples to **watch and pray**. He wanted them to stay alert – not just with their eyes, but with their hearts.”

Tilly thought about that. “So being watchful helps in science and faith?”

“Absolutely,” Dad said. “God speaks in quiet ways sometimes – through a tiny detail or a gentle thought. The people who notice those things are the ones paying attention.”

From that day on, Tilly was hooked. She started watching everything.

She noticed how her little brother always blinked when he was fibbing. She spotted the exact moment a cloud began to cover the sun. She even saw that her teacher wore blue every Monday.

Watching had become a habit. And she discovered something wonderful:

The world was full of clues – if you slowed down to notice them.

C) Narration

Parent/Tutor Says:

"Can you tell me what happened in the story about Tilly and the experiment? What did she test? What did she learn? Tell me everything you can remember in your own words."

(Let students narrate freely. For younger ones, prompt with “What happened when she mixed the vinegar and bicarb?”)

D) Activity

Option 1: Fizzy Reactions Experiment

You'll need:

- Bicarb soda
- White vinegar
- Small cup or bowl
- Tray (to catch the mess)
- Optional: food colouring, dishwashing detergent, warm/cold vinegar

Instructions:

1. Place 1 tablespoon of vinegar into a cup.
2. Add a drop of food colouring or detergent (optional).
3. Add ½ teaspoon of bicarb soda and watch carefully!
4. Repeat with changes (warm vinegar, more/less bicarb, different shapes of containers).
5. Record everything you notice. Use drawings or lists.

Option 2: “Watch Closely” Challenge

Give students a familiar object (fruit, toy, plant). Let them observe silently for 1 minute. Then take it away and ask:

- What colour was it?
- What texture or pattern did it have?

- Any marks or details you noticed?
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What happened when Tilly mixed the ingredients?
- Why is it important to watch closely?
- What do you like to watch?

ii) Middle Primary Students (Ages 8–10):

- What did Tilly learn by repeating the experiment?
- Why is it important to record what you see?
- How does watching help in real life?

iii) Upper Primary Students (Ages 11–12):

- How does careful observation help in science and in life?
 - What does “watch and pray” mean in the Bible?
 - Can you think of a time when paying attention really mattered?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Watch and pray so that you will not fall into temptation.” – Matthew 26:41a

Parent/Tutor Says:

"Jesus wants us to live with open eyes – looking for what’s happening, noticing what matters, and staying alert. It’s not just about seeing with our eyes, but with our heart and spirit too. That’s what Tilly learnt: that careful watching is part of wisdom."

Reflection Question:

- How can you be more watchful this week – whether during school, at home, or when you’re praying?

Lesson 5: Recording Results

Topic: Observation in Science Experiments

Ages: 5–12

Character Focus: Attentiveness (Carefully noticing and remembering what we see and do)

A) Introduction

Parent/Tutor Says:

"Do you remember what we learned in our last science lesson? That's right – we practised watching carefully during an experiment.

Today we're going to take that one step further by learning how to record what we see. Why? Because scientists don't just notice things – they write them down so they won't forget, and so others can learn from them too.

This takes focus. It takes patience. And it's a way to practise being faithful with the knowledge God gives us. Let's begin with a story about a boy named Zach and his big mistake – and how he learned to pay closer attention."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Zach and the Missing Notebook"

Zach was excited. The homeschool science fair was only two weeks away, and this year, he had chosen a project he hoped would truly stand out – testing which fruit made the best battery. He had read about it in a book from the library and had seen a few videos online. Lemons, apples, potatoes... they all had natural acids, and with the right materials, they could actually power a light! It sounded amazing.

He had spent the last week gathering supplies. His mum helped him source copper coins, galvanised nails, wires, and some small LED bulbs from the hardware store. Zach even made his own "lab space" at the kitchen bench, where he laid out everything in neat rows. He had a plan. Well – sort of.

"Mum," he called one afternoon, "I'm ready to test the fruits!"

She came over and smiled. "That's great! Remember, good scientists don't just do experiments – they record what they observe."

Zach nodded quickly. "Yep. I'll write everything down later."

He began with the lemon. Carefully, he pushed one copper coin and one nail into each end of the fruit. Then he clipped on the wires and connected them to the LED. Nothing at first. He adjusted a wire and – YES! A faint glow appeared. "It works!" he shouted.

Next, the apple. This one lit up too, though not as bright. Then came the potato. When he finished wiring it up, the little bulb glowed more brightly than either of the other two.

"Wow," Zach whispered. "Potato power!"

He scribbled a few words in his science notebook – but he didn't label anything properly. No dates. No names of fruits. No sketches or descriptions. Just some half-finished sentences like “apple weak?” and “lemon fizz maybe.” He figured he'd remember it all.

That night, he was still buzzing with excitement. “Mum, the potato worked the best – I think. Maybe it was the lemon. No – wait... um...”

Mum raised an eyebrow. “Did you write it down?”

Zach looked sheepish. “Sort of...”

The next morning, he tried to review his notes. It was no use. His writing looked like chicken scratch. The words “best result” had a big question mark next to them. One line just said “try more” without any context.

He sighed. “I don't know which fruit was strongest anymore.”

Mum sat beside him. “That's why recording your results carefully is part of the experiment. Science isn't just doing – it's remembering, testing, and explaining.”

“I'll start again,” Zach said with determination.

This time, he was ready. He made a fresh table in his notebook with columns: Date, Fruit, LED Brightness (scale of 1–5), Time to Light Up, Comments.

He began again. First the lemon. He noted that it took 5 seconds for the LED to glow faintly, and rated the brightness 2/5. The apple took 8 seconds and glowed just a little – 1/5. The potato, however, lit up in 3 seconds and shone steadily at 4/5 brightness.

He even used coloured pencils to shade each brightness score and sketched the wire setup for each fruit. “Now I won't forget,” he said.

He tried the experiment again on another day to compare results – and got the same outcome. The potato was consistently the best.

At the homeschool fair, Zach set up his display board with photos, diagrams, and his neatly recorded results. He let visitors try lighting the LEDs themselves. Other kids asked, “How do you know the potato works best?”

Zach beamed. “Because I tested it three times. I measured everything. And I wrote it down.”

That evening, at home, Dad smiled as he looked through Zach's notebook. “This is fantastic work, son. You were careful, patient, and detailed.”

Zach said, “At first I thought I could just remember stuff in my head. But now I see that writing it down helps you learn better – and helps other people learn from you, too.”

Dad opened the Bible and read a verse aloud: “The wise store up knowledge. – Proverbs 10:14.”

Zach nodded slowly. “That's what I did today. I stored up knowledge – not just in my brain, but in my book.”

A week after the fair, Zach's grandparents came to visit. His Grandpa, a retired engineer, was especially interested in Zach's experiment.

“I used to keep notebooks like this when I worked on bridges,” Grandpa said, flipping through the pages. “We wrote down every observation – temperature, materials, how much weight things could hold.”

Zach’s eyes widened. “You wrote everything down like a scientist?”

“Exactly,” Grandpa said. “Because details matter. One small mistake can lead to big consequences. But writing things down helps us see clearly, spot patterns, and make wise decisions.”

That afternoon, Grandpa and Zach did a new test – using lemons and copper wire to try and charge a tiny calculator. It didn’t work perfectly, but they took notes and planned improvements.

“Even failures teach us,” Grandpa said. “As long as we record what we’ve learned.”

That night, Zach looked at his growing science notebook. It now held drawings, charts, thoughts, and even a few prayers in the corners.

He wrote one more note before bed: “Thank You, God, for teaching me to observe, remember, and write things down. Help me notice what others miss.”

He closed the book and whispered, “The wise store up knowledge.”

Then he slept – dreaming not just of glowing potatoes, but of a future filled with light, learning, and attentiveness.

C) Narration

Parent/Tutor Says:

"Now I want you to tell me what happened in the story. What did Zach learn about recording his results? What happened when he didn’t do it properly? Use your own words to tell me the story back."

D) Activity

Choose one or both activities:

Option 1: Fruit Battery Experiment (with Recording)

You’ll need:

- Lemon, potato, apple
- 2 copper coins
- 2 galvanised nails (or other zinc items)
- LED or small light globe
- Alligator clip wires
- Notebook and pencil

Instructions:

1. Insert one coin and one nail into each piece of fruit.
2. Use wires to connect each fruit to the light.
3. Record: Which fruit lit up the best? How bright? For how long?
4. Create a simple chart or drawing of your results.

Option 2: Everyday Observation Journal

Instructions:

1. Choose an everyday object (plant, pet, sky, or toy).
 2. Spend 3–5 minutes observing it.
 3. Draw it, label it, and write three things you noticed.
 4. Repeat the next day and compare your new observations.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7)

- What did Zach forget to do?
- Why is it important to write things down?
- What do you like to remember?

ii) Middle Primary Students (Ages 8–10)

- Why couldn't Zach remember which fruit worked best?
- How does recording your results help you learn more?
- Can you think of something you forgot because you didn't write it down?

iii) Upper Primary Students (Ages 11–12)

- What are some ways scientists record their results?
 - Why is it a sign of attentiveness to write down what you notice?
 - What does it mean to “store up knowledge,” and how does it help you in life?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“The wise store up knowledge.” – Proverbs 10:14a

Parent/Tutor Says:

"When we take time to write things down, keep records, and pay attention to the details, we are practising wisdom. God wants us to be good stewards of our thoughts, our learning, and our time.

It's easy to forget, but when we record what we learn, we're choosing to remember well. That's part of what it means to be attentive."

Reflection Question:

- What's one way you can practise being more attentive when you do your schoolwork or learn something new this week?

Lesson 6: Noticing Tiny Changes

Topic: Observation in Science Experiments

Ages: 5–12

Character Focus: *Attentiveness* (Paying close attention to detail, being patient, and noticing small things)

A) Introduction

Parent/Tutor Says:

"Today we're going to learn how to spot tiny changes in experiments. Sometimes the most amazing things don't happen with a bang or a splash – they happen slowly, silently, or in small ways. And only people who are really attentive notice them.

The same is true in life. God often works quietly in us – changing our hearts bit by bit. When we practise noticing the little things, we become better scientists and better followers of Jesus. Let's begin with a story about a boy who wanted fast results – and what he learned about patience and paying attention."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Micah and the Disappearing Sugar"

Micah liked experiments. But not just any experiments – he liked the loud ones. The splashy ones. The kind with smoke or foam or explosions. His favourites were baking soda volcanoes and coke bottle geysers, and once, he'd even tried to build a potato-powered clock. Anything that involved action, mess, or sound – he was all in.

But quiet experiments? Slow ones? Ones where you had to sit and wait?

"Boring," he often said.

One Tuesday afternoon, Micah's older sister, Rachel, suggested they try something different.

"Let's do a dissolving experiment," she said, setting three clear glasses on the kitchen bench.

Micah groaned. "Dissolving? What's fun about that?"

Rachel smiled. "Just trust me. This one's about noticing tiny changes – and being really, really observant."

Micah raised an eyebrow but watched as she poured equal amounts of water into the glasses – one cold, one warm, and one hot.

"We're going to dissolve sugar in each glass," she said, "and see which one works fastest. But here's the twist – you have to *really* watch. Look closely. Time it. Record it. Use your senses."

Micah sighed but agreed. He dropped one teaspoon of sugar into the cold water. The grains floated down slowly, like snow in a snow globe. They landed at the bottom and just sat there.

“Nothing’s happening,” he said.

Rachel shrugged. “Just wait.”

Micah leaned in. After a few seconds, he noticed the grains breaking up – just a little. He stirred gently. Swirls of sugar dust began to rise like smoke underwater.

Next, he tried the warm water. This time, the sugar began to disappear more quickly, and the water turned slightly cloudy. Then came the hot water – *whoosh!* The sugar was gone almost before he could blink.

“Whoa,” said Micah, impressed. “That one vanished!”

Rachel handed him a notebook. “Write it all down. Be specific. Time it if you can. This experiment is about paying attention to detail.”

Micah scrawled some notes. Then he tried again – but this time, he used coloured sugar crystals.

He noticed new things:

- The red sugar in cold water made a slow swirl like a ribbon unravelling.
- The same sugar in hot water spread quickly but in different layers.
- Stirring too much made it hard to see what was really happening.

As he watched, something clicked. It wasn’t just about the sugar disappearing. It was about *how* it disappeared. The direction of the swirls. The timing. The way some sugar floated and some sank. The colour trails. The bubbles.

Micah’s curiosity was waking up.

He started to experiment more:

- What if he didn’t stir at all?
- What if he used salt instead of sugar?
- What if he used honey?

Each change revealed something new. He noticed how salt formed smaller bubbles. How honey spread through hot water in ribbons before dissolving completely. He began to use a stopwatch and measure the time more precisely.

Later that week, he tried something bigger. “I’m going to see what happens to chalk in vinegar,” he told Rachel.

He placed a piece of chalk in a clear cup of vinegar and watched. At first, nothing happened. No fizz. No bubbles. Just silence.

“This is so slow,” he muttered.

But Rachel encouraged him to be patient. “Watch for the tiniest changes. Be still. Don’t rush.”

So Micah waited. After two minutes, he saw tiny bubbles clinging to the chalk. Five minutes later, the vinegar had grown cloudy. Ten minutes in, the chalk had begun to erode. Little pieces flaked off. Over the next hour, the chalk became smaller and thinner.

Micah took notes every five minutes:

- “Minute 5: Bubbles forming on edges.”
- “Minute 15: Cloudy water.”
- “Minute 30: Chalk looks thinner. Edges rough.”
- “Minute 60: Almost gone.”

He even drew diagrams of the chalk at each stage, labelling them like a scientist. He felt proud. “This is slow science,” he said, “but it’s cool.”

That night at dinner, he shared what he’d learned. “It’s not always the big stuff that matters. Sometimes, you learn the most when you watch something *small* really carefully.”

His dad nodded. “That’s true in life too. God often works in little ways – in our hearts, our thoughts, even in the quiet times.”

Micah thought about that.

After dinner, he walked into the bathroom to brush his teeth. The mirror was foggy from someone’s shower, so he drew a tiny smiley face in the steam.

Then he watched it disappear.

The smile faded slowly, second by second, as the steam evaporated. A tiny change. But real.

He thought about other small changes:

- The way bread rises in the oven.
- The way plants lean toward the sunlight.
- The way his puppy’s tail starts to wag when he hears his name.

Over the next week, Micah became a “tiny change detective.” He began looking for little details everywhere:

- The way snow melted on one side of the garden before the other.
- How ants made paths across the bricks, and how those paths changed when he moved a pebble.
- How a small scratch on his arm got better each day.

One afternoon, Micah was outside when he saw a caterpillar hanging upside down from a twig.

“What’s it doing?” he wondered.

He watched.

An hour passed.

Then two.

The caterpillar twitched. It curled. And slowly, it began to split its skin.

By the end of the day, it had formed a small, green cocoon.

Micah’s jaw dropped. “A chrysalis! I just saw a caterpillar start changing into a butterfly!”

He ran inside and shouted, “Mum! I think this might be the best slow experiment ever!”

The next few weeks were filled with checking the cocoon, noting every change, and finally – finally – watching the butterfly emerge.

It fluttered its damp wings slowly, stretching them in the sunlight before flying away.

Micah didn't say anything for a long time.

Then he whispered, "I would have missed it... if I hadn't paid attention."

That night, Dad read him a Bible verse at bedtime:

"Whoever is faithful with very little will also be faithful with much." – *Luke 16:10a*

Micah nodded. "That's what I want to be. Faithful. Even in small stuff."

"Then keep noticing," said Dad. "Because God loves people who pay attention – to His creation, to His Word, and to His quiet work in their hearts."

Micah fell asleep that night with a notebook under his pillow.

He had labelled the final page:

"Tiny Changes I Don't Want to Miss."

C) Narration

Parent/Tutor Says:

"Tell me what happened in the story. What was Micah learning about? What surprised him? Why were the small changes important? Tell the story back in your own words."

Let children respond freely. Prompt with:

- "What was the first experiment?"
 - "What changed with hot and cold water?"
 - "What did he learn from the chalk and vinegar?"
 - "How did he feel about watching the butterfly?"
-

D) Activity

Choose one or both of the following activities:

Option 1: Dissolving Sugar Test

You'll need:

- 3 clear cups
- Cold water, warm water, hot (not boiling) water
- Sugar
- Teaspoon
- Stopwatch or timer
- Notebook

Instructions:

1. Pour the same amount of water into each cup (one cold, one warm, one hot).
2. Add 1 teaspoon of sugar to each.
3. Stir gently and observe.
4. Time how long it takes the sugar to dissolve in each cup.
5. Record your results clearly in a table or journal.

Extension: Try the same with salt, bicarb soda, or coloured sugar.

Option 2: Chalk in Vinegar Experiment**You'll need:**

- A piece of chalk (or substitute with bicarb soda)
- White vinegar
- Clear cup or small glass bowl
- Timer
- Pencil and paper for notes

Instructions:

1. Place the chalk in the cup.
 2. Pour in vinegar to cover it.
 3. Watch for 30–60 minutes, checking every 5 minutes.
 4. Note tiny changes: bubbles, fizz, rough edges, shrinking.
 5. Draw 3–4 stages as you observe change over time.
-

E) Reflective Thinking**i) Youngest Students (Ages 5–7):**

- What did Micah see in the water?
- What happened slowly?
- Why is it good to watch small things?

ii) Middle Primary (Ages 8–10):

- Why did the sugar dissolve faster in hot water?
- What did Micah learn by being patient?
- How does noticing little things help us in science?

iii) Upper Primary (Ages 11–12):

- What do small changes in an experiment teach us about bigger ideas?
 - How can paying attention to small things help us in our faith?
 - What does it mean to be faithful with “a little”?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Whoever is faithful with very little will also be faithful with much.” – *Luke 16:10a*

Parent/Tutor Says:

"This verse reminds us that even small things matter – tiny changes, quiet moments, and details that others might ignore. When we're attentive in the little things, God can trust us with more.

In science, paying attention to tiny changes helps us learn. In life, it helps us grow in wisdom, kindness, and faith. And when we notice God working in small ways – through people, through nature, or in our own hearts – we become more aware of His presence every day."

Reflection Question:

- Can you think of a time when something small turned out to be really important?
 - How can you practise noticing little changes this week – in science, in your family, or in your heart?
-

Lesson 7: What's a Hypothesis?

Topic: Testing Hypothesis

Character Focus: *Attentiveness* (Thinking before acting, being thoughtful about what might happen)

A) Introduction

Parent/Tutor Says:

"Today we're going to learn a big science word: *hypothesis*.

A hypothesis is a thoughtful guess – a prediction about what you think might happen in an experiment. But it's not just random. It's based on observing, thinking carefully, and using what you already know.

When we're attentive, we notice details that help us ask better questions. That's how scientists – and wise people – grow in understanding.

Let's start with a story about a girl named Ruby, who loved bouncing things and learned how to make smart guesses about what would happen next."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story with things to learn. Please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "*Ruby's Rubber Ball Question*"

Ruby loved to bounce things.

Balls, rubber bands, even her brother's toy frog had once been given the "bounce test." If it could bounce, Ruby would try it. She didn't just bounce for fun – she bounced because she was curious. She wanted to see how high things went, what shapes bounced best, and which ones made the funniest noise when they hit the ground.

One sunny morning, Ruby was bouncing her favourite red rubber ball in the driveway. As she bounced it again and again, she noticed something interesting. When she bounced it on the hard concrete, it sprang high into the air. But when she bounced it on the grass, it barely came up at all.

She crouched beside the grass, bouncing the ball again and watching closely. "Weird," she mumbled. "Same ball. Same throw. Totally different bounce."

Mum was nearby, watering the flowerbeds. She looked over and said, "That sounds like the start of a science experiment!"

Ruby looked up. "Really?"

"Absolutely," Mum said, setting down the watering can. "You just made an observation – something you noticed with your senses. That's the first step in science."

Ruby tilted her head. "Okay... so what's the next step?"

"Well," said Mum, "the next step is to make a *hypothesis*. That's a thoughtful guess – an idea you can test. It's not just any guess; it's a guess based on what you already know."

Ruby wrinkled her nose. "A hippo-what-now?"

Mum laughed. "A *hypothesis*. Say it slowly."

"Hi-poth-e-sis," Ruby repeated carefully.

"Perfect. So what do you think makes the ball bounce higher on the concrete?"

Ruby thought hard. "Maybe... the concrete is harder, and it pushes back more when the ball hits it?"

Mum smiled. "That's a fantastic hypothesis."

Ruby beamed. "So now we test it?"

"Yes. But we have to be careful. We need to make sure it's a fair test."

They gathered supplies: a notepad, a pencil, a ruler, and three different surfaces – the concrete driveway, the grassy patch in the yard, and one of the couch cushions from the living room (with Dad's permission, of course).

Ruby stood on a chair to keep the height consistent and held the ball at exactly one metre. "Ready?" she called.

"Ready!" Mum said, holding the ruler beside the spot where the ball would bounce.

Ruby dropped the ball.

Bounce!

On the concrete, it shot up to 80 centimetres.

On the grass: 40.

On the couch cushion: only 25.

Ruby wrote the numbers in her notebook and drew a little bar chart.

"My hypothesis was right!" she shouted.

"Exactly," Mum said. "That's what scientists do. They observe, make a hypothesis, test it carefully, and then record what really happened."

Ruby looked down at her chart. “It’s like being a detective – but for bounce!”

That afternoon, Ruby’s imagination took over.

“What else can I test?” she wondered aloud. She set up a new test, wondering, *Would the ball bounce differently if it was cold?*

She placed the rubber ball in the fridge and waited twenty minutes. “Brrrr,” she said when she touched it. “Let’s try!”

This time, it didn’t bounce quite as high – only 70cm on the concrete. She scribbled in her notebook again.

Next, she tried dropping it from a taller height – two metres. “Woah!” she yelled as it soared nearly as high as her head. “That’s fun!”

She even compared it to a different ball – an old tennis ball. It bounced differently again, lower and softer.

Each time, Ruby made a hypothesis, tested it, and recorded the results. Sometimes she was right. Sometimes she wasn’t. But she didn’t mind. She was learning, noticing, and growing more curious with each test.

That evening, Ruby sat on the verandah with Dad.

“I learned a new word today,” she said.

“Oh?”

“Hypothesis.”

Dad grinned. “Sounds fancy. What does it mean?”

“It’s a thoughtful guess about what might happen,” Ruby said proudly. “You think carefully, and then you test it.”

“Very nice,” Dad said. “That sounds like the work of a scientist.”

“It’s fun,” Ruby said. “But the best part is the guessing – trying to figure it out before you know.”

Dad nodded. “That’s a gift from God. He gave us curious minds. When we use them wisely, we grow in understanding.”

He opened his Bible and read aloud:

“The heart of the discerning acquires knowledge, for the ears of the wise seek it out.” – Proverbs 18:15

Ruby leaned back in the chair, watching the stars appear in the sky. “That’s what I want to do. Seek out knowledge. And guess carefully!”

But the story didn’t end there.

The next day, Ruby had a new question. “Mum,” she said, “do you think the bounce would change if I used a rubber ball that was *heavier*?”

Mum shrugged. “What’s your hypothesis?”

“I think it would bounce lower,” Ruby said. “Because heavier things don’t bounce as well.”

“Interesting. Let’s test it.”

They found a larger, thicker rubber ball that weighed more. Ruby repeated the same test: same drop height, same surfaces.

And to her surprise... it bounced higher.

“What?” she gasped. “That’s *weird*! My hypothesis was wrong!”

Mum smiled. “What do we do when a hypothesis is wrong?”

“We don’t panic,” Ruby said, quoting Mum from yesterday. “We look at what happened, and we learn something new!”

She quickly realised the ball wasn’t just heavier – it was also made of different rubber. It had more spring.

“So maybe it’s not just weight – it’s the *material* too,” Ruby said thoughtfully.

“Exactly,” Mum said. “Sometimes one variable changes another one in ways we didn’t expect.”

Ruby nodded slowly. “I need to think more carefully about *why* I’m guessing something, not just *what* I guess.”

She paused. “I think I need to make more thoughtful hypotheses.”

Later that week, Ruby was playing with her cousin Theo. Theo liked science, but he liked to guess wildly.

“Do you think your ball will bounce on water?” Theo asked.

“Hmm... I *think* it’ll sink,” Ruby said. “Because it’s solid rubber and water is soft.”

Theo tossed it into the kiddie pool. It *sank*.

Ruby grinned. “Hypothesis confirmed!”

Then she asked Theo, “What do you think would happen if we threw a ping pong ball instead?”

“It’ll float for sure,” he said.

But it bounced off the water instead – like a skipping stone.

Theo laughed. “Okay... I did *not* expect that.”

Ruby nodded. “Hypotheses help us think, but experiments help us *know*.”

Theo looked impressed. “You’re like a science teacher.”

Ruby laughed. “I’m just curious – and I ask good questions.”

That night, Dad told Ruby something she wouldn’t forget.

“Being wise doesn’t mean getting everything right,” he said. “It means asking good questions, listening well, and being willing to learn – especially from God.”

He opened the Bible again:

“Call to me and I will answer you and tell you great and unsearchable things you do not know.” – Jeremiah 33:3

Ruby whispered, “Unsearchable things...”

Dad said, “God doesn’t mind when we ask questions. He *loves* it. He wants us to grow in knowledge – with hearts that are humble and ears that listen.”

Ruby’s eyes lit up. “Like the ears of the wise!”

“That’s right,” Dad said. “And a wise scientist learns not just with the brain – but with the heart.”

From that week on, Ruby didn’t just bounce things.

She asked questions. She wrote her hypotheses in her notebook. She tested everything – from what materials made the best parachutes for her toy koala to whether red flowers attracted more bees than white ones.

She learned to slow down. To think before acting. To pay attention to patterns, causes, and changes.

She even started keeping a "Wonder Book" – a little journal filled with ideas, questions, guesses, and results. On the front, she wrote:

“Seek out knowledge. Guess carefully. Stay curious.”

And every page inside reminded her that being attentive meant more than watching – it meant listening, wondering, testing, and being thoughtful with the mind God had given her.

C) Narration

Parent/Tutor Says:

"Now tell me the story back. What did Ruby discover about bouncing balls? What was her first hypothesis? What were some of the other things she tested? What happened when her guesses were wrong? What did she learn about being curious, careful, and thoughtful?"

Let the child retell the story in their own words. Prompt with open-ended questions:

- What were some of Ruby’s experiments?
- How did her Wonder Book help her?
- What did Ruby learn about asking questions?

- What verses did her family read together?
-

D) Activity

Option 1: Bouncing Ball Hypothesis Test

You'll need:

- A rubber ball (plus a few other types – tennis, foam, balloon if possible)
- Ruler or tape measure
- 2–4 surfaces (concrete, carpet, grass, couch cushion)
- Notebook and pencil

Instructions:

1. Ask: *Which ball will bounce the highest on each surface?* (Make a hypothesis!)
2. Drop each ball from the same height (e.g. 1 metre).
3. Measure and record the bounce height on each surface.
4. Draw a chart or bar graph to compare results.
5. Reflect: *Was your hypothesis correct? If not, what did you learn?*

Option 2: Make a "Wonder Book"

Help your child decorate a small notebook with the title “My Wonder Book.”
Encourage them to:

- Write down questions about the world
- Record hypotheses and test results
- Draw pictures or graphs
- Add Bible verses about wisdom and learning

Option 3: Bouncing Variables Exploration

Try changing *one thing at a time* and make a new hypothesis:

- Cold ball vs. room temperature ball
- Bigger vs. smaller ball
- Dropping from 1 metre vs. 2 metres
- Using a fan to add wind

Test each new idea and record what happens.

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What did Ruby notice about her ball?
- What is a “hypothesis”?
- What happened when her guesses were right? What about when they were wrong?

ii) Middle Primary (Ages 8–10):

- Why do scientists make a hypothesis before they test things?
- What helped Ruby make good guesses?
- How does being attentive help us ask wiser questions?

iii) Upper Primary (Ages 11–12):

- Why is it important to test our ideas instead of assuming they're correct?
 - Can you think of a time when you learned something unexpected while testing or exploring?
 - How does a Wonder Book help us become better thinkers and observers?
-

F) Biblical Connection & Wrap-Up

Memory Verse:

“The heart of the discerning acquires knowledge, for the ears of the wise seek it out.” – *Proverbs 18:15*

Parent/Tutor Says:

"God loves it when we use the minds He gave us to ask good questions, notice patterns, and seek out truth. When we make a hypothesis, we are using *attentiveness* – looking carefully, thinking deeply, and learning faithfully.

Ruby didn't just bounce balls – she bounced ideas. She learned that being wrong wasn't failure – it was the start of deeper understanding. That's exactly the kind of wisdom Proverbs talks about.

And when we combine careful thinking with a humble heart, we honour God in our learning."

Discussion Question:

- *What's one way you can practise being more thoughtful and attentive this week – in your schoolwork, in your play, or in listening for God's voice?*

Lesson 8: What's the Best Way to Test?

Topic: Testing Hypothesis

Character Focus: *Attentiveness* (Being thoughtful, fair, and precise in how we test things)

A) Introduction

Parent/Tutor Says:

"Last time, we learned how to make a *hypothesis* – a thoughtful guess about what we think might happen in an experiment.

Today we're going to learn about something just as important: *how* we test it.

Good scientists don't rush or guess randomly. They do things fairly and honestly. That means keeping everything the same – except one thing, the variable they want to test.

Fair tests help us find the *truth*. God loves truth and justice, and when we practise fair testing, we reflect His character. Let's hear a story about two brothers, some soggy biscuits, and how they learned to be fair scientists – and fair friends."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story with things to learn. Please listen carefully, because I'm only going to read it once. After the story, I'll ask you to tell me everything you remember. Ready?"

Story: "*The Biscuit Experiment*"

Sam and Caleb were brothers – and friendly rivals when it came to science.

They didn't fight much, but they did compete. Who could build the tallest Lego tower? Who could pour juice without spilling a drop? Who could remember the most dinosaur names?

But their biggest battles took place in the kitchen – Science Central, as they called it.

One rainy Saturday afternoon, Mum gave them an idea. "Since it's wet outside, why don't you two do a kitchen science challenge?" she said. "How about a biscuit experiment?"

Caleb's eyes lit up. "Can we eat the biscuits afterward?"

Mum laughed. "Possibly – if the experiment allows."

Sam already had a spark in his eye. "What are we testing?"

Mum walked to the pantry and pulled out a few biscuit packs – oat, chocolate chip, arrowroot, and some fancy caramel ones.

“Let’s see which biscuits stay crisp the longest after being dunked in milk,” she said.

Sam and Caleb both grinned. This was exactly the kind of science they loved.

Caleb rubbed his hands together. “I bet chocolate biscuits last longer – they’re thick and tough.”

Sam shook his head. “No way. Oat biscuits are the strongest. They soak it up, but don’t fall apart.”

Mum nodded. “Great. You’ve each made a hypothesis – a thoughtful prediction based on what you know.”

“But,” she added, raising a finger, “how will you test it fairly?”

Sam blinked. “What do you mean?”

Mum pointed to the table. “If you use different cups, or pour different amounts of milk, or dunk one biscuit longer than another... your test won’t be fair.”

“Ohh,” said Caleb slowly. “So everything has to be the same – except for the biscuit.”

“Exactly,” Mum said. “You only change one thing at a time. That’s how scientists test things properly.”

The boys got to work.

First, they found four identical glasses. They measured exactly 150 millilitres of milk into each one.

“Let’s check the temperature too,” said Sam, who had borrowed Dad’s digital thermometer from the garage. “21 degrees Celsius in all of them.”

They lined up their biscuits on plates and used a stopwatch app on Mum’s phone.

“One, two, dunk!” Sam said.

Each biscuit was dipped for three seconds, no more, no less. Then they placed them on a dry plate and waited.

Caleb hovered nearby, sniffing the air. “Chocolate smells the best.”

Sam rolled his eyes. “We’re testing crispness, not flavour!”

After 30 seconds, they took a bite of each biscuit.

The oat biscuit was still firm. The chocolate one had started to go soft. The arrowroot biscuit practically dissolved in Caleb’s hand.

“Well,” said Caleb, “I think I lost that one.”

Sam grinned. “Oat biscuit wins!”

But then something surprising happened.

“I want to try again,” Caleb said. “But this time... let’s stir the milk a little. Maybe that affects it too.”

Mum looked up from her book. “Good thinking. You’re asking a new question now – changing the variable.”

They ran the test again. This time, stirring the milk made all the biscuits soggy, faster.

“Whoa,” said Sam. “So movement matters?”

“And maybe temperature too!” Caleb added.

They tried warm milk next – zapping it in the microwave for 20 seconds.

That changed everything.

Even the oat biscuit turned to mush.

Sam wrote furiously in his science journal. Caleb drew pictures of melting biscuits with cartoon faces yelling, “Save me!”

By the time Dad came home from the shops, the kitchen smelled like a dairy bakery and the boys were on their sixth experiment.

“Have you left any biscuits for me?” he asked, half-laughing.

“Nope!” said Caleb. “All in the name of science.”

Mum gave Dad a quick summary of the day’s events. He listened and smiled.

“Sounds like you’re learning more than just which biscuit is best,” he said. “You’re learning how to test something properly.”

Sam looked up. “We tried to change only one thing at a time. That was hard.”

Caleb added, “Sometimes we forgot, and our results got weird. So we had to redo it.”

Dad nodded. “That’s exactly what good scientists do. They test fairly and pay attention when something’s off.”

That night, after dinner, Dad opened the Bible during family time.

He read:

“The Lord loves righteousness and justice.” – Psalm 33:5a

“Justice,” he explained, “means giving each side a fair go. In science, we call that a ‘fair test.’ In life, it means being honest and not picking favourites. God cares about truth and fairness.”

Sam thought for a minute. “So testing fairly is kind of like being just?”

“Exactly,” Dad said. “You don’t change the rules to suit what you want to happen – you look for what’s true.”

Caleb nodded. “Like not dunking the oat biscuit longer just because I hope it wins.”

Everyone laughed.

The next day, the boys wrote up a “Biscuit Report” to share with their homeschool group. They included:

- Their hypothesis

- The materials and method
- Fair testing rules
- Results (with charts and bar graphs!)
- A reflection: “Fairness is like justice. God loves it when we’re honest in how we learn.”

Later in the week, Mum introduced another challenge.

“This time,” she said, “you’re going to test which paper towel absorbs the most water.”

“Ohhh,” said Sam. “That sounds fun.”

“But harder,” added Caleb.

They repeated everything they’d learned:

- Same cup size
- Same amount of water
- Same dipping time
- Same angle of dip
- Same measurement method using the kitchen scale

The results surprised them again.

The brand that looked thickest didn’t absorb as much as the cheaper one with tiny holes.

Sam scribbled a new thought: “Looks can be deceiving. Better to test fairly than guess based on appearance.”

Caleb added in crayon: “Hypothesis: Science is full of surprises!”

The next morning, Sam had a new idea. He crept out early and tried testing biscuit *shapes* – round versus square. He carefully broke and shaped a biscuit, then tested each one in milk. The round one stayed firmer.

Mum walked in. “What’s going on?”

“Round vs. square biscuit hypothesis,” Sam said proudly.

But when Caleb came in and found out Sam had done more tests alone, he frowned.

“You did experiments *without me*?”

“I didn’t think you’d mind,” Sam said.

“Well I *do*,” Caleb replied. “It’s not fair.”

Mum stepped in. “Then maybe your next test is about working together.”

So they did. Their new question: *Do stale biscuits stay firmer than fresh ones?*

They tested, measured, and observed together. The stale ones stayed firm – but tasted awful.

Caleb laughed. “Sometimes winning means losing!”

Sam added to the journal: “Testing is only one part of the picture.”

That Sunday at church, the pastor read:

“Better a little with righteousness than much gain with injustice.” – Proverbs 16:8

The boys nodded. “Fair tests. Honest hearts.”

That night, as Caleb tucked into bed, he whispered, “Sam?”

“Yeah?”

“Even if I get soggy faster than you, will you still do experiments with me?”

Sam laughed. “Only if you stop eating the test subjects before we finish.”

“Deal,” Caleb grinned.

And across the room, Mum smiled in the dark – thankful her sons were growing in knowledge, fairness, and friendship.

C) Narration

Parent/Tutor Says:

"Can you retell the story? What were the boys testing? How did they keep things fair? What problems did they run into, and how did they solve them together?"

D) Activity

Option 1: Biscuit Dunking Fair Test

Use two or more biscuit types. Keep milk amount, temperature, and dunking time the same. Record the results and graph them.

Option 2: Change One Variable

Try changing one thing: milk temp, stirring, stale vs. fresh biscuits. What changed? What stayed the same?

Option 3: Team Experiment

Work with a friend or sibling. Plan, test, record, and reflect as a team.

E) Reflective Thinking

Ages 5–7:

- What happened when they changed the milk?
- Why is it important to be fair in testing?
- How did Sam and Caleb become better friends?

Ages 8–10:

- What could go wrong if a test isn't fair?

- How did the boys show attentiveness?
- When is it hard to be fair in life?

Ages 11–12:

- How do fairness and justice connect in science and in life?
 - Can you think of a time when being fair meant slowing down?
 - Why does God care about how we learn?
-

F) Biblical Connection & Wrap-Up

Memory Verse:

“The Lord loves righteousness and justice.” – *Psalms 33:5a*

Parent/Tutor Says:

"Fairness in science means keeping your tests honest. Fairness in life means treating others rightly, not changing the rules just to win.

Sam and Caleb learned that being attentive in testing – and in friendship – helped them reflect the heart of God. When we care about what’s true and right, even in the small things, we honour Him."

Reflection Question:

- *What’s one way you can practise fairness this week – in a game, a test, or a decision?*

Lesson 9: What If It Doesn't Work?

Topic: Testing Hypothesis

Character Focus: *Attentiveness* (Perseverance, reflection, learning from mistakes)

A) Introduction

Parent/Tutor Says:

"Have you ever tried something... and it didn't work?

That happens in science all the time. Experiments fail. Guesses are wrong. Wires don't connect. Things go *splat* instead of *spark*.

But good scientists don't give up. They learn from what didn't work, and they try again. That's what today's lesson is all about – *perseverance*.

Attentiveness doesn't only mean watching carefully. It also means noticing *what went wrong*, thinking deeply about it, and being willing to *try again*.

Let's hear a story about a girl named Leah, a sticky pile of lemons, and a light that wouldn't shine... at least not at first."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story with things to learn. Please listen carefully, because I'm only going to read it once. After the story, I'll ask you to tell me everything you remember. Ok?"

Story: "*Leah's Lemon Light That Didn't Light*"

Word Count: 1,516 words

Leah loved science.

Not just the part where you watched things explode or fizz or grow in colourful crystals – but the part where you had an idea, tested it, and found out whether the world agreed with you. She loved the feeling of discovering something new. Her "Wonder Notebook" was filled with doodles, scribbles, question marks, and ideas waiting to be tested.

So when she saw a video online about someone powering a light with lemons, her whole face lit up.

"Did you see this, Mum?" she asked, dragging the tablet across the kitchen table. "Look! They used lemons to light a clock!"

Mum leaned over and watched the video. "Very cool. And the science behind it is real. Lemons can create electricity – just a little."

“I want to try it!” Leah said. “Like right now.”

“Then we’d better gather the supplies,” Mum said.

They made a list:

- Lemons
- Copper coins
- Galvanised nails
- Alligator clip wires
- A small LED light

They visited the hardware store and the supermarket. Back at home, Leah arranged everything neatly on the table.

She stuck a nail and a coin into each lemon – being careful not to let them touch. She clipped the wires together, connecting each lemon in a line. She held her breath, reached for the LED light... and...

Nothing.

Not even a flicker.

Leah frowned. “Hmm. Maybe I clipped the wires wrong.”

She checked each connection. Still no light.

“Maybe this lemon is bad,” she muttered, swapping one out. Still nothing.

An hour passed. Her hands were sticky. Her nails smelled like metal. Her hopes were sagging.

“I followed all the steps,” she sighed. “Why isn’t it working?”

Mum gently squeezed her shoulder. “Science doesn’t always work the first time, sweetie. Want to take a break and come back to it?”

Leah shook her head. “I want to fix it.”

“I believe you will. But sometimes, stepping back helps us see things more clearly.”

They went outside for a walk. The breeze was cool and smelled like jasmine. As they walked, Leah noticed something odd – ants crawling in a long, neat trail down the footpath.

“They’re so focused,” she said. “And when they bump into something, they just go around it.”

Mum smiled. “Attentiveness. They don’t rush. They just... keep trying.”

Leah nodded slowly. “I guess I should try again. Carefully this time.”

Back at home, she sat down and looked at the lemons.

“I wonder if something’s wrong with my materials,” she said aloud.

She held up one of the nails. It was rusty.

“Could this be the problem?” she asked.

Mum came over. “That’s possible. Rust can stop the electricity from flowing.”

Leah dashed to the drawer and found a cleaner nail. She rubbed it with steel wool. Then she cleaned the coins with vinegar and salt.

She reassembled the whole lemon line, connecting each carefully.

And then, holding her breath again, she touched the wires to the LED light...

A soft green glow appeared.

“It’s working!” Leah cried. “It’s not super bright – but it’s on!”

She danced around the room while Mum clapped. It wasn’t a bright lightbulb. It wouldn’t power a room. But it was enough to show her that science – real science – meant not giving up when things got hard.

That evening at dinner, Leah couldn’t stop talking.

“I thought it wasn’t working because I had done something wrong,” she said. “But it was the rust! I would’ve missed that if I gave up.”

After dinner, Dad opened the Bible and read:

“Let us not become weary in doing good, for at the proper time we will reap a harvest if we do not give up.”
– Galatians 6:9

“That’s about science too,” Leah said with a grin.

“Maybe not exactly,” Dad chuckled, “but the principle fits. God wants us to grow through perseverance.”

Mum added, “And sometimes learning means slowing down and noticing what went wrong.”

Later that night, Leah was brushing her teeth when her little brother Micah wandered in. “Mum said you made a lemon light,” he mumbled. “How?”

Leah bent down and grinned. “It’s kind of like using the sour juice to wake up electricity. You put metal bits in the lemons and use wires to help the electricity travel.”

Micah’s eyes grew wide. “Can we use oranges too?”

“Maybe!” Leah said. “Do you want to help me tomorrow?”

Micah nodded. “Only if I get to taste the oranges.”

Leah laughed. “Deal.”

The next morning, Leah sat alone at the table, staring at a messy tangle of wires. The light wasn’t working again.

She felt tears prick her eyes. “Why does it work *some* of the time and not *all* of the time?” she whispered.

She bowed her head, just for a moment. “God... I’m trying. Please help me understand what I’m missing.”

She didn’t hear a voice. But a quiet thought came to mind: *Be patient. Look again.*

She leaned in. One wire had come loose.

“Oh,” she said softly. “Thank You.”

The next day, she made a colourful science poster called “*Power from Plants!*” with her voltage results, fruit comparisons, and a line from Proverbs:

“The heart of the discerning acquires knowledge.” – Proverbs 18:15

She decorated the bottom with a big yellow lemon and the words:

“Even if it doesn’t work at first... try again.”

Mum took a photo to send to Grandma.

“You’ve become quite the scientist,” she said.

Leah smiled. “And a patient one too.”

C) Narration

Parent/Tutor Says:

"Tell me the story in your own words. What was Leah trying to do? What went wrong? What helped her try again? What did she learn about science – and about herself?"

Prompt with:

- What did Leah build?
 - Why didn’t it work the first time?
 - What helped her notice the problem?
 - What role did her family, her prayers, and her attentiveness play?
-

D) Activity

Option 1: Lemon Battery Science Test

You’ll need:

- 3–4 lemons
- Galvanised nails and copper coins
- Alligator clip wires
- LED light (low voltage)
- Notebook

Instructions:

1. Predict: *Will this lemon battery power the light?*
2. Build your lemon circuit carefully.
3. Observe: Does it work?
4. If not – pause. Look again. What might be wrong?

5. Try again with fresh parts or better connections.
6. Record everything!

Option 2: Fruit Comparison

Try lemons, potatoes, and apples. Which fruit gives the best glow? Why?

Option 3: "Fail First" Engineering

Build a spaghetti bridge or paper airplane. When it fails, write down:

- What went wrong?
 - What can I improve?
 - What did I learn?
-

E) Reflective Thinking

Ages 5–7:

- What did Leah build?
- Why did she have to try again?
- What helped her learn?

Ages 8–10:

- How did Leah stay attentive even when things didn't work?
- What was her attitude when she failed?
- How did her walk, her prayer, and her brother help her?

Ages 11–12:

- Why is trying again important in science?
 - What can failure teach us when we're paying attention?
 - What does Leah's journey show about God's heart for perseverance?
-

F) Biblical Connection & Wrap-Up

Memory Verse:

"Let us not become weary in doing good, for at the proper time we will reap a harvest if we do not give up."
– *Galatians 6:9*

Parent/Tutor Says:

"Leah's experiment didn't work at first. But she kept going, and that made all the difference.

Sometimes, life is like that too. We don't always get it right on the first go. But if we're attentive – if we slow down, notice what went wrong, and try again – we learn things we never would've learned otherwise.

God doesn't just want us to *get the right answer* – He wants us to grow wise, patient, and faithful. That's what perseverance is all about."

Reflection Question:

- *What's something you might need to try again this week – with more care, prayer, or attention?*

Lesson 10: How Sound Works

Topic: Ears, Sound, Music

Character Focus: *Attentiveness* (Listening well, being aware of invisible movement, quiet focus)

A) Introduction

Parent/Tutor Says:

"Today we're going to learn something amazing: how sound works. Did you know that sound is actually *movement*? It's invisible vibrations that travel through the air until they reach your ears!"

God designed us with ears so we could enjoy music, understand speech, hear nature – and even listen for His voice. But to understand sound, we must practise *attentiveness* – being quiet, focussed, and alert to what we cannot see.

Let's start with a story about a boy named Joel who discovered how sound travels – even when it's invisible."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you remember. Ready?"

Story: *Joel and the Invisible Wiggle*

Joel liked facts. He liked knowing how things worked – why boats floated, how birds flew, and where the rain went after a storm. His bookshelf was filled with nature guides, his drawer with homemade science kits, and his head with a hundred questions.

But one thing didn't quite make sense to him: sound.

He could hear it, of course. Voices, barking dogs, music, traffic, thunder – but how did it actually work?

One Tuesday afternoon, Joel was sitting at the kitchen table doing his workbook when a strange thought popped into his head.

“Hey, Tessa,” he said to his older sister, “how does sound get to your ear?”

Tessa looked up from her laptop and grinned. “Great question. Sound is made by vibrations – things moving back and forth really fast. But the movements are tiny, so we don’t see them.”

Joel frowned. “But if I can’t see it, how do I know it’s really moving?”

Tessa set her computer aside. “Time for an experiment.”

She walked over to the drawer and pulled out a spoon and a piece of string.

Joel’s eyes sparkled. “What are we doing?”

“You’ll see,” she said. “Tie this string to the handle of the spoon.”

Joel tied it in a knot.

“Now,” she instructed, “wrap each end of the string around your index fingers. Then gently press your fingers into your ears.”

Joel obeyed. “Like this?”

“Perfect. Now watch.”

Tessa gently tapped the spoon on the edge of the table.

BONG!

Joel’s eyes widened. “It sounds like a church bell inside my head!”

Tessa laughed. “That’s because the sound didn’t travel through the air – it went through the string, into your fingers, and then through your bones to your ears.”

Joel blinked. “Sound can do that?”

“Yep. Vibrations can travel through solids, not just air.”

They spent the next hour exploring more.

Tessa stretched a rubber band across an empty tissue box and plucked it.

“Twang!” Joel giggled. “It’s like a guitar.”

“Look closely,” Tessa said.

He squinted. The rubber band was moving – tiny back-and-forth wiggles.

“So... that’s sound?” he asked. “The wiggling?”

“That’s right. Vibrations create sound waves.”

Joel ran to the kitchen. He filled a glass with water and gently tapped the rim with a spoon. It rang like a bell. Then he wet his finger and rubbed the rim slowly – producing a rising hum.

“Did you hear that?” he gasped.

Tessa nodded. “Water helps the glass vibrate in a smooth wave.”

Then Joel had an idea. “What happens if I talk into a balloon?”

They found one in the drawer, blew it up, and took turns talking into it while the other touched the surface. The balloon gently vibrated.

“Whoa,” Joel said. “Even our voices are vibrations!”

“Exactly,” Tessa said. “Our vocal cords vibrate the air when we talk.”

Joel ran to grab a metal slinky and stretched it between two chairs. He tapped one end lightly.

On the other side, Tessa could feel the movement.

“It’s like a sound tunnel!” she said.

Later that night, Joel couldn’t stop thinking about all the invisible movement.

He turned off his lamp and lay still in the dark. The room was quiet... or so he thought.

But the more he listened, the more he heard.

Tick... tick... tick... went the clock.

A soft hum came from the fridge in the kitchen.

Outside, wind brushed the leaves.

Then a dog barked in the distance.

Joel pulled the blanket up to his chin. “It’s like there’s a hidden world of sound,” he whispered.

He remembered Tessa’s words: Vibrations moving like waves... through the air... to your ears.

He closed his eyes and imagined the sound waves like ripples from a pebble, moving out in every direction.

The next morning, Joel bounced into the kitchen, ready to talk about sound.

“Mum!” he said, “Did you know that sound can travel through string, bones, air, and even balloons?”

Mum smiled as she poured oats into a pot. “You’ve been experimenting, I see.”

Joel nodded. “And I think I felt God’s voice a little last night.”

Mum paused. “Really? What do you mean?”

“Well,” Joel said, “I was lying in bed listening to all these tiny sounds I never noticed before. And I felt like... the world was full of messages. Like I wasn’t alone.”

Mum put a gentle hand on his shoulder. “God gave us ears for a reason – not just to hear noise, but to listen. Sometimes, His voice isn’t loud. Sometimes it’s soft. Sometimes it’s in what we notice, when we’re being still.”

Joel thought about that.

“I want to practise listening more,” he said.

At science group later that week, Joel shared his experiment with the other homeschool kids.

“Sound is invisible,” he explained, “but it moves in waves. You can feel it, even if you can’t see it.”

He showed them the spoon-and-string trick.

“Whoa!” said his friend Aaron. “That sounds like a bell in my head!”

Then Joel led them through a challenge: try to see or feel a sound in five different ways.

1. Rubber band guitar
2. Speaking near a window and watching the glass vibrate
3. Feeling your throat while humming
4. Placing your hand on a speaker playing music
5. Blowing gently across bottles filled with water at different levels

At the end, the tutor asked, “What did this teach you about the world?”

Joel raised his hand. “That some of the most important things are invisible – but real. Like sound. Like love. Like God’s voice.”

The tutor smiled. “Beautifully said.”

That night at dinner, Dad read aloud from 1 Kings 19 about Elijah and the still small voice.

“God wasn’t in the wind... or the earthquake... or the fire... but in the gentle whisper.”

Joel looked up. “Just like sound waves. You can’t always see them. But if you’re quiet, you can hear.”

Mum nodded. “God made our ears so we could hear more than just noise. He made us to listen with our hearts, too.”

The next weekend, Joel’s little cousin Max came over for a visit.

Max was only five, and full of questions.

“What are you doing?” he asked, watching Joel wrap yarn around two plastic cups.

“A sound experiment,” Joel said. “Want to try?”

Max nodded.

Joel handed him one cup and kept the other. “Now walk to the end of the hallway. Keep the string tight.”

They did. Joel whispered into his cup, “Can you hear me?”

Max’s eyes lit up. “Yes! How did it get to me?”

“The string wiggled,” Joel said. “Tiny vibrations carried the sound through the yarn to your cup.”

Max giggled. “That’s silly – but cool!”

Joel laughed too. “Sound is kind of like that. Invisible – but real.”

That night, Joel lay in bed staring at the ceiling. The room was dark and still.

His dad came in to say goodnight.

“Dad,” Joel whispered, “how do you know when God is speaking?”

His father sat on the edge of the bed. “That’s a good question.”

Joel explained the experiments – the spoon, the balloon, the glass. “Sound travels in waves,” he said. “But God’s voice doesn’t always come with sound. Sometimes I wonder if I miss it.”

Dad nodded slowly. “Sometimes I do too. But God knows how to reach us. He can speak through Scripture, or a feeling in your heart. Sometimes it’s a sense of peace when you pray. Or a verse you suddenly remember. Or someone’s kind word at just the right time.”

Joel thought for a moment. “So even when it’s quiet... He’s still talking?”

“Exactly,” Dad said. “You just have to listen with more than your ears.”

Joel smiled with understanding.

The next Sunday at church, the pastor gave a children’s talk.

He held up a tuning fork. “This makes a sound when I strike it – but watch carefully.”

He struck it gently and placed the base on a wooden table. The kids leaned in. A hum vibrated through the wood.

“Did you hear it?” the pastor asked.

“Yes!” Joel called out.

“Could you see it?”

“No.”

“That’s how God works sometimes,” the pastor said. “Just because you can’t see Him doesn’t mean He’s not speaking.”

Joel beamed with understanding.

The next day, Joel wrote one more entry in his notebook:

“Listening is a kind of science. And a kind of prayer.”

C) Narration

Parent/Tutor Says:

"Now tell me the story in your own words. What did Joel learn about sound? What experiments did he do? What did he realise about listening and God’s voice?"

D) Activity

Option 1: Spoon Sound Experiment

You'll need: Metal spoon, string, hard surface

Instructions:

1. Tie the string to the spoon.
2. Wrap the ends around your fingers and press fingers into ears.
3. Swing spoon to tap surface.

Talk: What did you hear? Why?

Option 2: Rubber Band Guitar

You'll need: Tissue box, rubber bands

Instructions:

1. Stretch bands over hole.
2. Pluck and observe.

Talk: What's vibrating? Which is higher/lower?

Option 3: Cup-and-String Phone

You'll need: 2 cups, yarn

Instructions:

1. Make holes in cups.
2. Thread and tie yarn.
3. Keep string tight and talk/listen.

Talk: What carried the sound?

E) Reflective Thinking

Ages 5–7:

- What makes sound?
- Can we see it?
- What sounds do you love?

Ages 8–10:

- How does sound move?
- What helped Joel learn?
- When do you listen best?

Ages 11–12:

- Why might God whisper?
 - How can you practise listening?
 - What “invisible” things do you want to notice more?
-

F) Biblical Connection & Wrap-Up

“Incline your ear, and come to Me; hear, that your soul may live.” – Isaiah 55:3a

Parent/Tutor Says:

"Sound is invisible, but powerful – just like God's voice. Sometimes we want loud answers, but God often speaks in quiet ways. If we practise attentiveness, we'll not only hear the world better – we'll hear Him too."

Reflection Question:

- What's one sound – or voice – you want to listen more carefully to this week?

Lesson 11: Listening to the World Around Us

Topic: Ears, Sound, Music

Character Focus: *Attentiveness* (Listening with care, being aware of others and the natural world)

A) Introduction

Parent/Tutor Says:

"Today we're going to talk about a special kind of sound skill: *listening*.

Listening isn't just about hearing noises – it's about being attentive. When we listen carefully – to people, animals, nature, or even silence – we learn things we wouldn't notice otherwise.

Listening is one of the ways we show love, stay safe, and grow wise. In the Bible, God often tells His people, 'Listen to Me.' And sometimes, Jesus simply said, 'He who has ears to hear, let him hear.'

Let's begin with a story about two friends who went for a walk – but only one of them was really listening..."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Please listen carefully because I'll only read it once. Afterwards, I want you to tell me everything you remember. Ready?"

Story: *Jem and Zara Go for a Sound Walk*

Word Count: 1,507 words

Jem and Zara were neighbours and best friends. They did almost everything together – rode bikes, built forts, drew maps, and climbed trees. But one Saturday morning, they were about to experience something new.

Zara knocked on Jem's door holding a pencil, a water bottle, and a small spiral-bound notebook.

Jem opened the door with a granola bar in his mouth. "Wanna go exploring?"

Zara nodded. "Yep. I'm going for a sound walk."

Jem tilted his head. "A what-now?"

"A sound walk," she said, holding up her notebook. "I'm going to write down every sound I hear today. No talking. Just listening."

Jem raised his eyebrows. "That's weird."

Zara smiled, unfazed. “Maybe. But I think God’s world is full of music – if you’re paying attention.”

He shrugged. “I guess. I’m still bringing the binoculars.”

Off they went, following a dirt path behind their neighbourhood. The morning sun peeked over the hills, lighting up the gums with golden fingers of light. Birds stirred in the canopy. Leaves crunched underfoot.

Jem stomped ahead, whacking a stick on logs and tree trunks, narrating his adventure in a loud explorer voice. Zara lagged behind, pausing every few steps to close her eyes, tilt her head, and scribble in her notebook.

At the first clearing, Jem announced loudly, “No animals! Just boring trees!”

Zara held up a finger, listening. “Did you hear that laughing sound?”

Jem stopped. “What laughing?”

She pointed silently toward a tall gum tree. A moment later, a kookaburra flew down and landed on a low branch, chuckling its signature call.

Jem stared. “Whoa! How did you know it was there?”

“I listened,” she said simply.

They walked on. Jem kept talking, sometimes singing loudly or pretending to be a bushranger. He didn’t hear the rustle in the undergrowth or the repetitive chirps coming from a tree fern.

But Zara did. She wrote in her journal:

1. Kookaburra
2. Wind through she-oaks
3. Cicadas – so many!
4. Jem’s boots!

Eventually, they came to a bubbling creek. Jem tossed rocks, aiming for the biggest splashes. Zara found a smooth log and sat quietly, legs crossed, eyes closed.

She breathed deeply and listened.

5. Water over rocks
6. Magpies calling
7. Frog croaking
8. Dragonfly wings

“Why do you keep writing everything down?” Jem asked between splashes.

Zara opened her eyes. “Because when I write it, I remember it. And when I listen, I notice things I wouldn’t see.”

Jem sat down beside her. He tried closing his eyes too.

First, he noticed the breeze on his face. Then the splash of a fish. A faint clicking of insects. His own heartbeat.

Then...

“I heard a frog!” he said. “I didn’t even see it!”

Zara smiled. “That’s the thing. The world’s always making sound – but most people aren’t listening.”

They wandered through a stretch of eucalyptus where everything felt muffled – like the trees were holding their breath. Jem started to speak, then stopped. He could feel the difference.

Zara whispered, “This place is still.”

Jem nodded.

They crossed a field, walked through tall grass, and followed a fence line past a group of cows.

Zara wrote: 9. Cow’s lowing

10. Creaking wire fence

11. Fly buzz

12. Whisper of grass

Jem surprised her by adding, “And my stomach rumbling.”

They both laughed.

As the day stretched on, the sun grew warm. They stopped under a shady tree for snacks. Zara read through her list. Jem listened thoughtfully.

“Hey,” he said after a pause, “do you think God listens like that? To everything?”

Zara looked up. “What do you mean?”

“Like... all our words, but also stuff we don’t say. Our thoughts. The way we feel.”

Zara nodded. “I think He does. And maybe we should listen that way too – not just to sounds, but to what they mean.”

Jem was quiet.

They began their walk back just as the light started to turn golden. Birds chirped less. Shadows stretched long.

At a bend in the track, they sat one last time on a mossy log.

Zara closed her eyes. Jem followed suit.

This time, the silence didn’t feel awkward. It felt... full.

Full of rustles. Buzzes. A final birdcall. Their own breathing. A gentle creak from the trees above.

And in that stillness, something deep settled in Jem’s chest. Something like peace.

When they got home, Zara showed her dad the journal.

“You’ve practised the art of stillness,” he said. “Real listening is rare. It shows respect – to creation, to people, and to God.”

That night, after dinner, Jem picked up his own empty notebook. He stared at the first blank page, then wrote one sentence:

“Today I learned to listen.”

And from that day on, whenever they walked together, they carried two sound journals.

Sometimes, Jem filled more pages than Zara.

A week later, Jem and Zara returned to the same bush trail – this time with their parents and younger siblings.

Zara brought extra notebooks and pencils.

“What are those for?” asked Jem’s little sister, Lily.

“A sound journal,” Jem said. “We’re going to do a sound-listening challenge.”

As they walked, Jem and Zara led the way. They paused often, cupping their ears and pointing to quiet sounds – a beetle clicking, a gust of wind, distant thunder.

“Write down every sound you hear,” Zara told the group. “Don’t talk. Just listen.”

Even the adults smiled and joined in.

After twenty minutes, they gathered in a circle and shared.

“I heard a crow,” said Lily.

“I heard my shoes squeak!” said her little brother.

Zara’s dad said, “I never noticed how musical the wind can be in the gums.”

Jem grinned. “Told you. The bush is louder than you think – if you’re listening.”

Later, they sat under the trees and shared their favourite sound. Everyone picked something different – but everyone had something.

On the way home, Jem whispered, “Do you think we could do this at church? Like a quiet listening time?”

Zara smiled. “I think that would be beautiful.”

That evening, after the sound walk with their families, Zara stayed for tea at Jem’s house. The sun had gone down, and the air was cool. They sat on the front porch with mugs of warm milk and watched the stars blink into view.

For a long time, neither of them spoke.

Jem finally broke the silence. “Do you think God ever gets tired of listening?”

Zara shook her head. “No. I think He listens better than anyone. Even to the things we don’t know how to say.”

Jem thought for a moment. “Like when we’re sad but don’t cry?”

“Or when we’re thankful but don’t say thank you,” Zara added.

They sat in silence again. This time, the quiet wasn’t awkward. It felt like space had been made – for something deeper.

Then Jem whispered, “Thank You, God. For today.”

Zara echoed, “And for ears to hear Your world.”

They sat a little longer, letting the stillness settle around them like a soft blanket.

And somewhere in the distance, a night bird called.

They smiled, not because anything was said, but because both of them understood.

C) Narration

Parent/Tutor Says:

"Can you tell the story in your own words? What did Jem and Zara do differently on their walk? What kinds of sounds did they hear? What did Jem learn by the end of the day?"

D) Activity

Option 1: Sound Walk or Sit Spot

You’ll need:

- A notebook or paper
- Pencil
- A quiet outdoor space

Instructions:

1. Find a quiet place to sit for 5 full minutes.
2. Close your eyes and listen.
3. Write or draw every new sound you hear.
4. Talk about: Which sound surprised you? Which sound did you almost miss?

Option 2: Create a Sound Map

1. Draw a small circle in the centre of your page (that’s you).
 2. As you listen, draw or label each sound where it’s coming from (above, behind, left, right).
 3. Compare your sound map with someone else’s!
-

E) Reflective Thinking

Ages 5–7:

- What sounds did Zara hear?

- What sound do you like best?
- Why is it good to be quiet sometimes?

Ages 8–10:

- What helped Zara notice more than Jem?
- How does listening help us learn?
- Can you think of a time you heard something others didn't?

Ages 11–12:

- Why do you think most people don't listen carefully?
 - How can you become a better listener – to people and to God?
 - When is it hardest for you to stay quiet and attentive?
-

F) Biblical Connection & Wrap-Up

"Be quick to listen, slow to speak, and slow to become angry." – James 1:19b

Parent/Tutor Says:

"God tells us to be quick to listen. Why? Because listening helps us learn truth, show love, and grow in wisdom. Whether it's listening to people, to creation, or to God – when we're attentive, we honour them.

Jem and Zara learned that listening takes effort – but it also brings peace, understanding, and even joy."

Reflection Question:

- Who or what do you need to listen to more carefully this week?

Lesson 12: Music and the Human Voice

Topic: Ears, Sound, Music

Ages: 5–12

Character Focus: *Attentiveness* (Being sensitive to beauty, focused in expression, and thoughtful in how we use our voice)

A) Introduction

Parent/Tutor Says:

"Today we're going to explore how sound becomes something even more wonderful – *music*."

Music is made by patterns of sound. It can come from instruments, but it can also come from one of the most amazing instruments God ever made – *your voice*!

When we sing, hum, speak, or whisper, we're using tiny muscles, air, and vibrations in a very special way. God designed the human voice not only for communication – but for *expression, joy, truth, and worship*.

Let's listen to a story about a girl named Lani who discovered the science and the beauty behind her voice."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Please listen carefully because I'll only read it once. Afterwards, I want you to tell me everything you remember. Ready?"

Story: *Lani Finds Her Voice*

(1511 words)

Lani was quiet. Not the shy kind who never spoke – but the thoughtful kind who took in the world with wide eyes and a soft heart.

She loved drawing, reading, and baking with Mum. She even loved science – especially when it helped her understand how things worked. But there was one thing she didn't like at all: singing in front of people.

At home, when no one was around, she sang to herself – little tunes while washing the dishes or humming while sketching in her notebook. But when others were nearby, her voice disappeared.

Even at church, when the music started and everyone stood to sing, Lani mouthed the words and stayed silent. She loved the sound of voices rising in praise – but she never joined in.

"I just don't want to mess it up," she told her mum one day. "What if I sing the wrong note?"

Mum smiled gently. "Sweetheart, God doesn't ask for perfect notes. He asks for honest hearts."

Lani wasn't convinced. She didn't even know if her voice was good. And she was too scared to find out.

One Thursday, at their homeschool support group, the topic of the week was "Sound and the Human Voice." The lesson was being run by one of the science mums, who had once studied biology and music at university.

She brought in a guitar, a keyboard, some charts – and a large diagram of the human head and neck.

"Did you know," she began, "that your voice is actually a musical instrument built into your body?"

The kids leaned in.

"Your vocal cords – also called vocal folds – are like tiny stretchy bands inside your throat. When you speak or sing, air from your lungs moves upward through your trachea. When it reaches your larynx – this bump here – it pushes through your vocal cords, making them vibrate."

She plucked a string on the guitar. "Just like this string vibrates and makes sound, your vocal cords do too. They're tiny, but incredibly strong. And they can open and close hundreds of times per second!"

Lani blinked. "Hundreds?"

"Yep! In fact, to sing a high note, your vocal cords stretch tighter and vibrate faster. To sing a low note, they relax and vibrate more slowly. It's like tuning a string – tight for high, loose for low."

She walked over to the piano. "Let's try a little experiment. Everyone, hum a low note..."

They did.

"Now slowly slide it higher..."

As the group giggled and shifted pitches, Lani heard something she hadn't paid attention to before – how her voice changed. She could feel it vibrating in her throat, in her cheeks, even in her chest.

"Your body is full of what we call resonators," the tutor continued. "Your throat, your mouth, even your nose help shape and amplify your sound. It's why your voice is unique. No one else in the world sounds exactly like you."

The children looked at each other with wide eyes.

"And here's something amazing," she added. "You control your voice with breath. Breathing deeply gives you power. It's the fuel for your song."

That afternoon, Lani couldn't stop thinking about the lesson.

She walked around the house experimenting with her voice – humming, changing pitch, trying soft and loud tones. She even whispered into a glass to watch how sound bounced in the bowl.

Her brother Liam found her blowing across the top of a bottle.

"What are you doing?"

"Making music," she said.

That weekend, her family visited some friends who lived on a small farm just outside of town. There were animals everywhere – goats bleating, chickens clucking, birds calling in the trees, frogs croaking by the dam.

Lani sat on the back porch and listened.

Every creature has a voice, she thought. Even the frogs.

Her mum joined her. “Funny, isn’t it? God gave animals the instinct to make sound – some for warning, some for singing, some just because they’re alive.”

Lani nodded. “Their sounds aren’t perfect – but they’re not embarrassed.”

Mum smiled knowingly. “Neither should we be.”

That night, after dinner, the adults and kids sat around a campfire. One of the teenagers brought out a guitar. A few parents joined in singing “This Is My Father’s World.” Then the children were invited to choose a song.

Lani’s little brother tugged her sleeve. “Can you sing ‘Jesus Loves Me’ with me?”

She froze.

Everyone would hear. What if she sang off-key? What if her voice cracked?

But then she remembered what the tutor had said: Your voice is an instrument. It’s powered by breath. It’s shaped by you. It’s one of a kind.

She looked up at the stars, felt the cool night air in her lungs, and whispered a prayer.

God, You made this voice. I’ll try.

She took a deep breath – and sang.

At first, it was just a whisper of a melody. Her brother joined in. The words grew louder, steadier. She found the note. She let it ring.

The song finished. There was a quiet pause.

Then someone clapped.

Then others did too.

Lani’s cheeks flushed. But inside, something felt like it had opened. Her heart soared – not because it was perfect, but because it was honest.

Afterwards, Grandpa gave her a long hug.

“That was beautiful, Lani. You know the Bible doesn’t say, ‘Make a perfect sound.’ It says, ‘Make a joyful noise unto the Lord.’”

Lani smiled. “I think I finally understand what that means.”

Back at home, Lani wanted to learn more.

She read books about how the voice works – how the diaphragm helps with breathing, how singers use posture and control to project sound.

She even learned that sound itself travels in waves – like ripples on a pond – and our ears pick them up like little antennae. Pitch is just how fast those waves are moving. Volume is how big they are.

She filled a notebook with drawings – vocal cords, lungs, musical notes, sound waves.

And she practised.

Each day, she warmed up her voice, hummed scales, sang a new song. Sometimes she sang in the shower. Sometimes she sang to her dog. Once she even sang into a fan to hear the sound wobble.

One morning, she asked Mum if she could sing for Bible time.

Mum lit up. “Of course!”

Lani sang a memory verse to a simple tune she made up herself.

It wasn’t fancy.

But it was clear. Confident. Joyful.

One afternoon at their homeschool support group, the same science mum returned for a follow-up music session. She asked if anyone had explored their voice since the last lesson.

Lani raised her hand.

“Would you like to share something?”

Lani’s heart thudded. She glanced at Mum, who gave her an encouraging nod.

She stepped forward. “I learned that our voice is one of the most amazing instruments God gave us. And it’s not just for singing – it’s for telling truth, for praising, for helping. We shouldn’t hide it.”

Then she sang a short chorus from Psalm 100.

The room was quiet when she finished.

Then it filled with smiles and clapping.

A few days later, Lani visited her friend Mia, who was seven and full of questions.

“I liked your singing at group,” Mia said shyly. “But I don’t think I could ever do that. My voice sounds weird.”

Lani smiled gently. “Want to know a secret?”

Mia nodded.

Lani reached into her bag and pulled out a rubber band, a glass bottle, and a straw.

“Your voice is just like these,” she said. “Watch.”

She stretched the rubber band and plucked it. “Tight means high.” Then she loosened it. “Loose means low.”

She blew across the top of the bottle. A low hum filled the air.

“That’s air vibrating,” she said. “Your vocal cords do the same. And just like this bottle, your chest and mouth help the sound echo and grow.”

Mia’s eyes widened. “So… my voice isn’t broken?”

“Not at all,” said Lani. “It’s just *yours*. One of a kind. God made your voice just right for you.”

Mia beamed.

They spent the next hour singing silly songs, making siren sounds, and seeing who could sing the quietest note that still made a vibration.

At the end, Mia whispered, “Maybe I’ll sing in front of people one day.”

Lani whispered back, “Maybe I’ll sing *with* you.”

That night, Lani opened her journal one last time.

“This week I used my voice to sing, to teach, and to help. I used it to praise God, and to encourage someone smaller than me. My voice may not be the loudest or the fanciest, but it’s mine. And I will use it.”

She closed her journal and whispered, “Thank You, Lord… for breath, for sound, and for courage.”

Then she hummed herself to sleep.

C) Narration

Parent/Tutor Says:

"Can you tell me the story back in your own words? What did Lani learn about her voice? How does the science of sound and singing help us understand God’s design?"

Optional prompts:

- What makes the human voice an instrument?
- What did Lani learn about vocal cords, pitch, and breath?
- How did she begin using her voice for God?

D) Activity

Option 1: Rubber Band & Voice Experiments

You’ll need:

- A wide rubber band
- A bottle or glass
- A straw
- Your voice!

Instructions:

1. Stretch and pluck the rubber band. What happens when you pull it tighter or looser? (Relates to high and low pitch.)
2. Blow across the top of a glass bottle – can you hear a note?
3. Hum into a straw in water – watch the bubbles! Talk about how breath makes vibration.

Discuss: What makes sound louder or softer? What's the difference between *talking* and *singing*?

Option 2: “My Voice is a Gift” Song Craft

Create a short song using:

- A favourite Bible verse or line of praise
- A simple melody (or hum one of your own)
- Optional: Record it or sing with a sibling

Encourage: Your voice doesn't have to be perfect – it's already *unique*.

E) Reflective Thinking

Ages 5–7:

- What sound does your voice make when you talk? When you sing?
- Why did Lani learn to sing?
- Why do you think God gave you a voice?

Ages 8–10:

- What part of your body helps you sing?
- How does air and breath affect sound?
- What helped Lani become braver with her voice?

Ages 11–12:

- How is the human voice like a musical instrument?
 - What is “resonance,” and how does it affect sound?
 - How can using your voice attentively be a way of worship?
-

F) Biblical Connection & Wrap-up

“Make a joyful noise to the Lord, all the earth! Serve the Lord with gladness! Come into His presence with singing.” – Psalm 100:1–2

Parent/Tutor Says:

"God gave each of us a voice – not just to talk or shout, but to praise, encourage, and share truth. It's an amazing design of muscles, air, and vibration... and it's also a way to reflect His creativity.

When we use our voice with attentiveness and joy, we're honouring Him – not just with sound, but with our heart."

Reflection Question:

- *How can you use your voice this week – to praise God, help someone, or share kindness?*

Lesson 13: What the Eye Can See

Topic: Eyes, Seeing

Ages: 5–12

Character Focus: Attentiveness (Looking carefully, noticing detail, seeing with purpose)

A) Introduction

Parent/Tutor Says:

"Today we're going to learn about the amazing design of the eye – how we see, and how that helps us understand God's world.

Did you know your eyes are like little cameras, constantly taking in light and colour and shape? And your brain does the rest of the work to help you make sense of what you see!

God gave us eyes so we could enjoy creation, find our way, learn, and also be watchful. The Bible talks a lot about seeing clearly – not just with our eyes, but also with our hearts.

Let's begin with a story about a boy who learned to slow down, see deeply, and understand how wonderfully God made our eyes and minds."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

"Ezra and the Glasses of Seeing" (Expanded Version)

Ezra was in a hurry. Always.

He rushed through breakfast, zoomed through schoolwork, and dashed outside before his mum could say, "Slow down!"

If there was a shortcut, Ezra would take it. If there was a quicker way to finish something, Ezra would try it. He liked speed. But what he didn't realise was that he was missing a lot.

One warm afternoon, Grandpa came over with a dusty box tucked under his arm.

"I brought you something special," Grandpa said with a twinkle in his eye.

Ezra peeked inside. "Are these... binoculars?"

“Well, sort of,” Grandpa chuckled. “I call them the *Glasses of Seeing*.”

Ezra frowned. “What’s the difference?”

Grandpa tapped the box. “These don’t just help you see far away. They help you see *what’s really there*. But you have to use them slowly – no rushing.”

Ezra was curious. He lifted the binoculars to his eyes and looked quickly around the yard. Nothing exciting. Just the same gum tree, same fence, same grass.

“Try again,” Grandpa said, “but this time, pick one thing and look at it for ten seconds. Don’t blink too much. Just be still.”

Ezra sighed but obeyed. He pointed the lenses toward the gum tree again.

One second. Two seconds.

He saw bark and leaves.

Five seconds.

He noticed the shadows were moving just slightly with the wind.

Ten seconds.

Something moved – just a tiny twitch of motion against the brown bark.

Ezra leaned closer.

A green stick insect! It was so well-camouflaged that it looked like part of the branch.

“Whoa!” Ezra gasped. “It was *right there*!”

Grandpa nodded. “You didn’t see it before because you were rushing. Most people look – but they don’t really see.”

Ezra kept going. He used the binoculars to look at the porch rail and saw a spider web stretching between two boards. In the sunlight, each thread sparkled like silver thread. When he looked at a nearby flower, he noticed not just its colour – but the way the petals curved and the tiny dots of pollen in the middle.

He turned the binoculars toward a beetle crawling along the ground and saw shimmering greens and golds on its back – colours he never noticed before.

When he finally took off the binoculars, he looked surprised.

“You don’t really need these,” Grandpa said. “They’re just old binoculars. The real power is in your eyes – and your attention.”

Ezra tilted his head. “So… seeing better isn’t just about tools?”

“No,” Grandpa said. “It’s about *paying attention*. That’s how God made our eyes – not just to look, but to explore, to learn, and to wonder.”

Ezra didn’t say anything, but something had changed.

That night at dinner, instead of rushing through his meal, Ezra looked around. He noticed how the light reflected off the spoon. He saw the swirls in the wood of the table and the tiny scratch near his elbow that he'd never noticed before.

The next morning, Ezra woke up early and went outside. He sat in the backyard and just... watched. The sun was rising slowly, painting the sky with pink and gold. A group of birds flew in a perfect V-shape overhead, and he watched the clouds move slowly across the sky like soft ships sailing on an invisible sea.

His sister came outside with her doll and stopped beside him. "Why are you just sitting there?"

"I'm watching the world wake up," he said simply.

Later that day, he looked through one of the flowerbeds and spotted a praying mantis hiding in the leaves. Its green body matched the plants perfectly, and it moved so slowly that it was almost invisible. He would've missed it if he hadn't slowed down.

That afternoon, he opened his Bible and found a verse his Grandpa had mentioned:

"Open my eyes, that I may see wonderful things in your law." – Psalm 119:18

Ezra wrote it in his notebook and added:

God, help me to really see – not just with my eyes, but with my heart.

The Science of Seeing

As Ezra's eyes became more attentive, he began to learn something else – how eyes actually work.

Later that week, his mum gave him a book on science and the body, and he read about how the eye was designed.

Did you know your eyes are a bit like cameras? Light enters the eye through a clear dome called the **cornea**, which helps bend the light so it can be focused. Behind the cornea is the **pupil**, the little black circle that gets bigger or smaller depending on how bright it is. Around the pupil is the coloured part, called the **iris**, which acts like a shutter, letting in more or less light.

Then the light passes through a flexible lens, which changes shape to focus on things near or far. The light travels through a jelly-like centre and hits the back wall of your eye – called the **retina**.

Now, here's the amazing part: The retina is lined with tiny light-sensitive cells called **rods** and **cones**. Rods help you see in dim light, while cones let you see colour and detail. Together, they send signals to your brain through the **optic nerve**, which turns them into the picture you "see."

But guess what?

Your eye actually receives the image upside-down! It's your brain that flips it the right way up.

"Wow," Ezra said to himself. "Eyes are even cooler than I thought."

Eyes and the Brain

As Ezra continued learning, he realised something important: seeing isn't just about having eyes – it's also about using your brain.

If your brain doesn't pay attention, you can miss things – even if your eyes work perfectly.

That's why a person can walk past a flower and not notice it, or glance at a painting and not remember a thing about it. It's called **selective attention**. Your brain chooses what to focus on. When you slow down and become attentive, your brain starts noticing things it usually ignores.

Ezra remembered what Grandpa said: "Most people look – but they don't really see."

He smiled. Now he understood what that meant, both with science and with life.

Seeing with the Heart

The next week at their homeschool support group, Ezra helped lead a little science session.

He brought out the binoculars and passed them around.

"Today we're learning about the eye," he explained. "But we're also learning about *attentiveness* – how to see things properly."

He taught his friends about the cornea, pupil, lens, retina, and optic nerve. He even drew a big diagram.

Then he said, "But the most important thing isn't just what your eyes see – it's what your heart sees."

He read Psalm 119:18 and shared how he now sees beauty in flowers, spider webs, and the colours on a beetle's back – because he stopped rushing and started noticing.

Everyone took turns using the binoculars, then did a careful observation challenge outside.

When Ezra went home, his mum gave him a big hug.

"I'm proud of you," she said.

Ezra smiled. "I think my eyes are still changing. But mostly, I think I'm learning to *see*."

C) Narration

Parent/Tutor Says:

"Tell me what happened in the story. What did Ezra learn from his grandpa's 'Glasses of Seeing'? What kinds of things did he notice when he slowed down? What did he learn about how eyes and the brain work together? Tell it in your own words."

Younger students may simply retell the main events. Older students should also include the science of how eyes work and what it means to "see with your heart."

D) Activity Options

Option 1: Attentive Observation Challenge

You'll need:

- Magnifying glass (if available)

- Notebook or paper
- Pencil

Instructions:

1. Choose one thing to look at closely (a leaf, shell, flower, rock, or textured object).
2. Observe it for one full minute (set a timer!). Then draw it, including as much detail as possible.
3. Describe what you noticed in writing or words: Colour? Shape? Texture? Tiny features?

Talk About It:

What did you notice that you might have missed if you had rushed? How does being attentive help us notice more?

Option 2: “Find the Hidden Things” Game

Instructions:

1. Place several small items on a tray or cloth (e.g. pebble, paperclip, seed, coin, button, etc.).
 2. Cover the tray. Then uncover it for 10 seconds.
 3. Cover it again. Ask: How many items can you remember?
 4. Do it again – this time with 30 seconds of silent, focused observation.
 5. Compare: Which time did you remember more? Why?
-

E) Reflective Thinking Questions

i) Youngest Students (Ages 5–7):

- What did Ezra see when he slowed down?
- What’s something beautiful you’ve seen this week?
- Why do you think God gave us eyes?

ii) Middle Primary Students (Ages 8–10):

- What helped Ezra notice the hidden things?
- What’s the difference between looking and seeing?
- How does being attentive help us enjoy and understand the world better?

iii) Upper Primary Students (Ages 11–12):

- Why do you think most people miss the small things around them?
 - Can you think of a time when not paying attention caused you to miss something important?
 - How can seeing clearly be both a physical and spiritual skill?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Open my eyes, that I may see wonderful things in your law.” – Psalm 119:18

Parent/Tutor Says:

"Ezra's prayer in the Bible is a great one for us too. We can ask God to help us see what matters – not just beauty in the world, but wisdom in His Word.

Attentiveness with our eyes is about more than just seeing nature – it's about learning to notice truth, goodness, and the ways God is at work in everyday life."

Reflection Question:

What's something small or beautiful you've seen this week – and how did it help you grow in attentiveness?

Lesson 14: Light and Colour

Topic: Eyes, Seeing

Ages: 5–12

Character Focus: *Attentiveness* (Noticing beauty, understanding how light reveals, and recognising spiritual truth through what we see)

A) Introduction

Parent/Tutor Says:

"Have you ever wondered what the world would be like without light? We wouldn't be able to see anything – not colour, not shape, not distance. Today we're going to learn about **light and colour**."

Light helps us see, and colour helps us understand what we're looking at. But there's more to it – when we're attentive, light and colour can remind us of God's presence, truth, beauty, and even His promises.

Let's start with a story about a girl named Priya who learned how light changes the way we see everything."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Priya and the Rainbow in the Shed"

Priya was helping her dad clean out the old garden shed. It hadn't been used for months, and cobwebs stretched across the corners like sticky hammocks. Dust motes danced in the air with every box they moved, and the smell of dry grass and old tools filled the space.

"Let's open the window," Dad said, wiping sweat from his forehead. "We need some light in here."

As he pushed open the creaky window, a shaft of sunlight streamed through the dusty air and hit a jar of water on the top shelf. Priya turned – and gasped.

"Dad! Look!" she cried.

A brilliant rainbow had appeared on the wooden wall. It wasn't painted. It wasn't coming from any paper or sticker. It was just there – alive with colour. Red. Orange. Yellow. Green. Blue. Indigo. Violet.

She stared in wonder. "Where did that come from?"

Dad smiled and leaned over. "That's light, Priya. Just plain light. What you saw is called refraction. It happens when light bends – and when it bends just the right way, it splits into all its colours."

Priya frowned a little. "But I thought light was just... light. White. Bright. Like the sun or a torch."

“It is,” Dad said. “But white light is actually made of all the colours mixed together. You just can’t usually see them unless something special – like water or a prism – splits them apart.”

“It’s like a hidden treasure inside the light,” Priya whispered.

That afternoon, after they had dusted off the shelves and swept the floor, Dad suggested an experiment.

He brought a small mirror, a glass of water, and a torch from the house.

“Ready to make your own rainbow?” he asked.

Priya nodded excitedly.

They set the mirror inside the glass of water, leaning it at an angle. Then Dad shone the torch through the water and onto the mirror.

For a moment, nothing happened.

Then – “There!” Priya squealed. A small, shimmering rainbow danced across the side of the shed.

They did it again, adjusting the angle of the mirror, the height of the torch, and the distance from the wall. Each time the rainbow appeared, Priya clapped her hands.

She learned the word *refraction* – how light bends when it moves from one substance to another, like from air to water or from air to glass. Because each colour in light bends a little differently, the colours fan out and become visible.

“But why are the colours always in the same order?” she asked.

“Good question,” Dad said. “That’s because of their wavelengths. Red light bends the least, and violet bends the most. So they always spread out in that same pattern.”

Priya repeated the colours to herself in order. “Red, orange, yellow, green, blue, indigo, violet. That spells... ROYGBIV.”

Dad chuckled. “Exactly. You’ll remember it forever now.”

Later, Priya sat in the grass watching the sunset. The sky changed from golden orange to soft pink and then to a deep, rich purple as the sun sank below the trees.

“So many colours,” she whispered. “And we only see them because of light.”

That evening, around the dinner table, Mum pulled out the Bible and read a verse aloud.

“Jesus said, ‘I am the light of the world. Whoever follows me will never walk in darkness but will have the light of life.’” – John 8:12

Priya thought deeply about it.

“Jesus is like light,” she said. “He helps us see things clearly.”

Mum nodded. “That’s exactly right. Just like sunlight reveals all the colours, Jesus reveals truth. He shows us what is real and what matters most.”

“And beautiful,” Priya added. “He shows us beauty too.”

The next morning, Priya grabbed her notebook and coloured pencils. She went out into the backyard and decided to do a ‘light and colour hunt.’ She noticed how dew on a spider’s web caught the sunlight and sparkled. She saw the way the red petals on the rose bush looked brighter when the sun was shining on them. She watched the morning sunlight dance on the ripples of the birdbath.

In her notebook, she wrote down what she saw and what it reminded her of:

- **Spider web in the light** → God’s design in tiny things
- **Red petals glowing** → Beauty comes from light
- **Ripples with dancing light** → God’s joy sparkles in ordinary things

Later that week, at their homeschool support group, the kids gathered to do a science demonstration on colour.

The tutor showed them how to mix primary colours – red, blue, and yellow – to make new ones: orange, green, and purple.

As Priya swirled two colours together on her paper, she paused. “Even colours work together,” she said. “God designed them to blend into something new.”

Their tutor smiled. “That’s true – and it teaches us something about people too. When we bring our differences together in love, something beautiful happens.”

Back at home, Priya asked her dad, “Why does colour make us feel so happy?”

Dad thought for a moment. “Maybe because God didn’t just make light to help us see. He made it beautiful. Colour stirs up joy, wonder, and even hope.”

“Like rainbows,” Priya said. “A rainbow always feels like a promise.”

“That’s because it is,” Dad said. He opened the Bible to Genesis 9 and read:

“I have set my rainbow in the clouds, and it will be the sign of the covenant between me and the earth.”

God made a rainbow to remind Noah – and all of us – that He would keep His promise never to flood the whole world again.

Priya’s eyes sparkled. “So a rainbow is science... *and* a promise.”

“Yes,” Dad said. “And the more we learn about the science, the more we can appreciate the wonder.”

That night, Priya lay in bed, staring at the faint glow of the moonlight on her curtains.

She whispered, “Thank You, God, for colour, and light, and promises.”

And as she drifted to sleep, she imagined the colours of the rainbow floating through her dreams, reminding her of truth, beauty, and the Light of the world who would never leave her in darkness.

C) Narration

Parent/Tutor Says:

"Can you tell me the story back in your own words? What happened when the light hit the jar in the shed?"

What did Priya and her dad do with the mirror and torch? What new things did Priya learn about colour and light – and about Jesus? See if you can also remember the science words she discovered, like *refraction* and *wavelength*."

D) Activity Options

Option 1: Make a Rainbow with Water and Light

You'll need:

- A glass of water
- A small mirror
- A torch (or use sunlight)

Instructions:

1. Place the mirror inside the glass at a slight angle.
 2. Shine a torch through the water onto the mirror, or place the setup in direct sunlight.
 3. Look for a rainbow reflected on the wall or white paper.
 4. **Observe:** What colours do you see? What made the light bend?
 5. **Explain:** This is called *refraction* – light bending as it moves from air to water.
-

Option 2: Colour Mix Experiment

You'll need:

- Red, yellow, and blue food colouring or paints
- Clear plastic cups or bowls
- Water and/or white paper
- Droppers or spoons

Instructions:

1. Mix two primary colours at a time (red + blue, blue + yellow, yellow + red).
 2. Observe what new colours appear.
 3. Paint or drip the mixtures onto paper to watch how they blend.
 4. **Talk About It:** How does combining things change them? What might this teach us about beauty in diversity?
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What colours did Priya see in the rainbow?
- What's your favourite colour in nature?
- Why is it good to have light?

ii) Middle Primary Students (Ages 8–10):

- What did Priya learn about refraction?
- How does light help us see colour and shape?

- Why is Jesus called the “Light of the World”?

iii) Upper Primary Students (Ages 11–12):

- What is refraction, and how does it help us understand rainbows?
 - Why do you think God gave us such a colourful world?
 - What are some ways that light and colour can point us to God’s truth?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Jesus said, ‘I am the light of the world.’” – John 8:12a

Parent/Tutor Says:

"God designed light to help us see – and He also gave us Jesus, the Light, to help us see what is true and good.

Just like Priya saw a rainbow hidden inside the light, we can discover beauty, purpose, and hope when we look closely and stay attentive. When we follow Jesus, the Light of the world, we don’t have to walk in darkness – we can see clearly and walk in joy."

Reflection Question:

Where do you see God’s light in your life – through people, through nature, or through the things you’re learning?

Lesson 15: Seeing the Unseen

Topic: Eyes, Seeing

Ages: 5–12

Character Focus: *Attentiveness* (Looking beyond what's obvious, trusting in things unseen, being thoughtful and curious)

A) Introduction

Parent/Tutor Says:

"Today's lesson is about something mysterious and wonderful: **things we can't see with our eyes** – but they're still real.

Some things in science are invisible to the naked eye – like germs, air, or magnetic force. But just because we can't see something doesn't mean it's not there.

God also teaches us this through faith. We can't see Him with our eyes, but we can see the *evidence* of His work – just like we see the wind by what it moves.

Let's start with a story about a girl who discovered just how much she was missing by only looking at what she could see."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Tessa and the Invisible World"

Tessa had great eyesight. Everyone said so. She could spot a ladybird on a leaf, a balloon in the clouds, or the last cookie hiding on the top shelf. Nothing escaped her sharp eyes.

So when her homeschool science tutor asked during their weekly group, "What can you see today?" she confidently answered, "Everything!"

Her tutor smiled. "Are you sure?"

Tessa nodded. "Pretty sure!"

"Well," the tutor said with a twinkle in her eye, "let's see if you're right."

She handed Tessa a small box with thin plastic compartments inside. "This is a microscope slide box," she said. "And this –" she held up a round tool with a thick clear lens – "is a hand lens. Let's go exploring."

The group walked into the garden. Sunlight streamed down through the trees, and insects buzzed gently through the flowers.

“Pick up a leaf,” the tutor said.

Tessa grabbed one from a nearby plant. It looked green. Smooth. Boring.

“Now look through the lens,” her tutor said.

Tessa peered closely. Her eyes widened.

“There are lines everywhere! And dots! And little tiny hairs I never saw before!”

The tutor nodded. “That’s called magnification. It lets you see more than you can with your eyes alone. Those lines are veins – kind of like blood vessels in our bodies. They carry water and nutrients through the leaf.”

Tessa looked again. She had no idea there was so much happening in one little leaf.

“Let’s try the microscope,” the tutor said. She handed Tessa a slide with a thin layer of onion skin on it.

Tessa placed it carefully under the microscope lens and adjusted the focus.

She gasped. “It looks like bricks! Rows and rows of little see-through bricks!”

“Those are plant cells,” the tutor explained. “Every living thing is made up of tiny building blocks called cells. They’re far too small to see with your eyes – but they’re real.”

Tessa stared at the image. The cells were neatly organised, like a tiny invisible city.

Later, they looked at a hair under the microscope, then sugar crystals, then a speck of soil. Each thing looked completely different up close. Patterns, structures, and details were everywhere – hidden in plain sight.

The tutor smiled. “There’s a whole world you didn’t know was there.”

Tessa was amazed. “It’s like I’ve been walking past secret treasures my whole life!”

That afternoon, Tessa sat on the grass in her backyard. She watched a soap bubble float past. “I can’t see the air,” she said out loud. “But it’s holding that bubble up.”

She blew again. Bubbles floated, twisted, popped. The air was invisible – but its work was clear.

Tessa looked up and saw the leaves of the gum trees moving. She couldn’t see the wind – but she could see what it did.

That evening, she sat with her family and opened her Bible. Her finger ran down the page until she found Hebrews 11:1.

“Faith is confidence in what we hope for and assurance about what we do not see.”

Tessa read it again, slowly. “So… faith is kind of like a microscope for the heart,” she whispered. “It helps us trust what we can’t see.”

Her dad looked up. “That’s a great way to put it.”

Tessa thought about God. She had never seen Him with her eyes. But she’d seen prayers answered. She’d seen kindness in her family. She’d felt peace when she was scared, and strength when she was tired.

“Just like the microscope shows me what I couldn’t see,” she said, “faith shows me that God is near – even when I can’t see Him.”

The next morning, Tessa had a new goal. She was going to look for invisible things.

She put on her jacket, grabbed her notebook, and went outside.

First, she looked for evidence of wind: the trees swaying, the chimes on the porch tinkling, the flag flapping in the breeze.

Then she crouched beside a puddle and watched as it slowly shrank in the sun.

“Evaporation,” she whispered. “The water’s going up into the air – but I can’t see it happening.”

She made a list:

- Wind = seen in movement
- Air = carries sounds and smells
- Gravity = holds everything down
- Light = travels invisibly, but brings sight
- Sound = felt and heard, but never seen
- Germs = too small to see, but they can make us sick
- God = unseen, but always working

She remembered learning that even her own body had things she couldn’t see: blood pumping, lungs breathing, cells growing, thoughts firing through her brain like electric signals.

“I’m full of unseen things,” she said with a grin.

Later, her dad brought out a science book with colourful diagrams.

“Want to see what atoms look like?” he asked.

Tessa nodded eagerly.

He showed her pictures of atoms and molecules – balls and sticks representing protons, neutrons, and electrons.

“This is the stuff that makes everything,” he said. “Even you and me.”

“But we can’t see any of it?” she asked.

“Not with our eyes. Not even with a normal microscope. But scientists use special tools and experiments to learn about them.”

Tessa shook her head in amazement. “So everything is made of invisible stuff?”

Her dad smiled. “Almost everything. And yet God holds it all together.”

He opened Colossians 1:16-17 and read:

“All things were created through Him and for Him. He is before all things, and in Him all things hold together.”

Tessa sat back. “It’s all connected. Invisible science... and invisible faith.”

That weekend, she and her homeschool group visited a science museum. One section had interactive displays about forces and energy. There were buttons to press and levers to pull. One exhibit showed how magnets could move objects without touching them. Another let her feel the force of air pressure by pulling on a suction cup.

At the end of the visit, the group leader asked, “What did you learn today?”

Tessa raised her hand.

“I learned that not everything real can be seen. But when you pay attention – you start noticing what’s been there all along.”

Everyone nodded. Some of the other children shared things they’d noticed, too: the pull of gravity, the feel of warmth from sunlight, the way static electricity makes your hair stand up.

That night, as Tessa got ready for bed, she turned off her light and looked out the window. The moonlight fell softly on her windowsill.

“I can’t see God,” she whispered, “but I can see His light.”

She closed her eyes and prayed:

“Lord, thank You for showing me how to see the unseen. Help me to trust You with eyes of faith.”

From that day on, Tessa noticed the invisible. She saw the way love shaped people. She paid attention to the wind, the warmth, the movement of light and sound – and she looked at everything with deeper wonder, knowing that behind the seen was a world even more amazing.

C) Narration

Parent/Tutor Says:

"Can you retell the story in your own words? What did Tessa think she could see at first? What did she learn when she used the magnifying glass and microscope? What were some of the invisible things she began to notice? How did this connect to her faith and the Bible verse she read?"

Encourage older children to include specific examples such as wind, evaporation, cells, atoms, and faith.

D) Activity Options

Option 1: The Unseen Under the Lens

You'll need:

- A magnifying glass or microscope
- A leaf, onion skin, feather, fabric, sugar crystal, or any other natural/textured object
- Paper and pencil

Instructions:

1. Look at the object with your eyes alone. Describe what you see.
2. Now examine it with your magnifying tool. What details appear?
3. Draw what you see under magnification. Label it if possible.

4. **Reflect:** What does this teach you about looking more closely?
-

Option 2: See the Wind – Invisible Forces Observation

You'll need:

- A piece of light cloth, feather, or ribbon
- Bubbles or tall grass
- A notebook for recording

Instructions:

1. Go outside on a breezy day. Watch how things move.
 2. Blow bubbles or wave the ribbon – watch what happens.
 3. Look at how wind moves the world without being seen.
 4. **Connect:** How is this like other forces we cannot see – like sound, gravity, or God's Spirit?
-

E) Reflective Thinking

i) Ages 5–7:

- What invisible things can you think of that are real?
- What did you see through the magnifying glass?
- How do we know God is real, even though we can't see Him?

ii) Ages 8–10:

- What surprised you about what Tessa discovered through science?
- What invisible things have you noticed today?
- How can paying attention help us understand God better?

iii) Ages 11–12:

- What are some tools that help us see the unseen in science?
 - How is faith like a microscope for the heart?
 - What are some invisible truths or forces you believe in?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Faith is confidence in what we hope for and assurance about what we do not see.” – Hebrews 11:1

Parent/Tutor Says:

"Science teaches us that many things in God's world are real – even when we can't see them. Tiny cells, powerful forces like gravity, and even the air we breathe are all invisible but important.

The Bible teaches us the same truth in a deeper way – faith helps us believe in God and trust Him, even though we cannot see Him with our eyes.

When we are attentive and curious, we begin to see the evidence of God's work all around us."

Reflection Question:

What is one invisible thing – scientific or spiritual – that you want to understand or notice more?

Lesson 16: Watching Without Being Seen

Topic: Predator & Prey

Ages: 5–12

Character Focus: *Attentiveness* (Being alert, quiet, watchful, and aware)

A) Introduction

Parent/Tutor Says:

"Today we're going to explore a very clever skill that many animals have – the ability to watch without being seen.

This is really important in nature. If you're a predator, you need to watch your prey carefully without making a sound. If you're the prey, you need to stay hidden to survive. Many animals are extremely attentive to sound, movement, colour, shape, and even smell.

God gave His creatures special behaviours and features that help them stay safe – and He also teaches us to be watchful and wise.

Jesus said 'watch and be ready.' Let's listen to a story about a boy who learned this from one of Australia's best hidden hunters."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Jake and the Hidden Hunter"

Jake loved the bush.

Every time his family went camping, he brought the same three things: his binoculars, his nature journal, and his camera. While other kids built forts or chased each other through the scrub, Jake would sit for hours trying to spot birds, lizards, or anything that moved.

But he had one goal he'd never quite achieved – spotting a tawny frogmouth in the wild.

"They look just like a branch," Dad had said once. "You could stare at one for five minutes and still miss it."

That idea fascinated Jake. A bird that could disappear in plain sight?

He read everything he could find. Tawny frogmouths weren't owls, but they hunted at night like one. During the day, they sat perfectly still on branches, feathers fluffed to look like bark, eyes barely open. They didn't even blink. Jake learned this was called *cryptic camouflage*. It didn't mean they were invisible – just that they were so well hidden, your brain didn't notice them.

“They hunt at night and hide by day,” Jake told his younger sister Mia. “That's why they survive.”

On their next camping trip in the eucalyptus forest near Mudgee, Jake was determined. He packed his bag the night before and asked Dad to wake him up early.

“You'll never see one if you're noisy,” Dad reminded him. “Predators are the quietest watchers in the wild.”

The second morning of camp, the light had just started filtering through the trees when Jake slipped out of the tent. He held his camera carefully and walked slowly, stepping on rocks or hard-packed dirt to avoid crunching the leaves.

He picked a spot under a large gum tree and sat still.

The bush was quiet at that hour – except for the distant warble of magpies and the rustle of leaves as a light breeze passed through. Jake waited.

A goanna scuttled across a nearby log. A pair of rosellas flashed red and blue as they swooped overhead.

Still no frogmouth.

Jake felt the morning chill creep into his sleeves. He was just about to give up when something strange caught his eye.

One of the branches above... wasn't quite right.

It looked a little too thick. And – was it possible? – it seemed to be looking back at him.

He didn't move. Slowly, silently, he raised his binoculars.

His breath caught.

There it was.

A tawny frogmouth – perched perfectly still on a branch, its body angled just like a stubby offshoot of the tree. Its mottled feathers – grey, brown, cream, even speckled with bits of white – matched the bark so well that Jake could hardly believe it was alive.

Its head was slightly tilted back, beak pointing upwards, eyes narrow slits. Not a feather twitched.

Jake didn't speak. He didn't even blink. He just watched.

After a few minutes, the frogmouth blinked. Once. Then, with almost comical slowness, it turned its head and looked directly at Jake.

Even then, it didn't move.

In that moment, Jake understood what it meant to be truly *attentive*. The frogmouth had likely noticed him long before he'd spotted it. It had frozen – not out of fear, but because stillness was its greatest defence.

He took a few careful photos, then backed away without making a sound.

Back at camp, Jake was grinning from ear to ear.

“I found one!” he shouted to Dad. “It was right there, and I almost missed it!”

Dad nodded. “Because it was watching you first,” he said. “That’s how they survive. They’re completely alert to sound, shape, and movement.”

That afternoon, Jake pulled out his journal and began writing down everything he’d learned – not just from the frogmouth, but about predators and prey in general.

The Science Behind the Stillness

Tawny frogmouths are *masters* of camouflage. Unlike owls, they don’t have strong talons to grasp prey or powerful wings to swoop in silence. Instead, they rely on stealth. They sit on branches that match their colouring and shape, and they hold a position known as “stump posture,” making them look like a broken branch.

Their feathers are softly fringed, which breaks up their outline and scatters light. This prevents strong shadows and helps them blend into the background.

Their eyes, although large, have a slit-like second eyelid they can close partially to avoid the shine of sunlight. This allows them to *watch without being seen* – literally.

Jake learned about other animals that used camouflage too:

- **Leaf-tailed geckos** whose bodies mimic bark and lichen
- **Cuttlefish** that change colour to match coral reefs
- **Stick insects** that sway like twigs in the wind
- **Snow leopards** whose pale grey coats match rocky cliffs

But camouflage wasn’t just about colour. It was about *behaviour* too. The frogmouth didn’t just *look* like part of the tree – it *acted* like one. No flinching. No unnecessary movement. No sound.

That’s what made it effective.

A Lesson in Attentiveness

That evening, as the family sat around the campfire roasting marshmallows, Mum pulled out a small Bible and read aloud:

“The prudent see danger and take refuge, but the simple keep going and pay the penalty.” – Proverbs 22:3

Jake sat back, thinking.

The frogmouth didn’t survive because it was the strongest bird, or the fastest. It survived because it knew how to be still, quiet, and observant. It noticed tiny changes – like Jake’s approach – and reacted with wisdom.

“I think being still is harder than it looks,” he said.

Mum nodded. “Being attentive takes patience. Most people rush past the very things God wants them to see.”

Jake thought about how Jesus told His disciples to “watch and pray.” Watching wasn’t just something animals did – it was something people needed to learn, too.

The Morning After

The next day, Jake tried something new. Instead of charging through the bush with his camera, he chose to be still.

He sat near a waterhole and just... waited.

In that quiet space, he began to notice things he’d never seen before: the delicate flutter of a butterfly landing on a reed; the ripple of a fish breaking the surface; the sudden silence that fell when a hawk flew overhead.

He even saw a wallaby freeze mid-step, ears twitching, eyes scanning. It stayed like that for nearly a full minute before hopping away.

Every creature, it seemed, knew how to be still and watchful.

Except people.

Jake wrote in his journal:

“Animals survive by being attentive. Maybe people thrive by being attentive, too.”

That night, as stars filled the sky and the sounds of the bush crept in through the trees, Jake closed his eyes and whispered a quiet prayer:

“God, help me to be watchful – not just in the bush, but in life. Help me to notice what matters. Help me to see what others miss.”

And from that trip on, Jake became more than just a birdwatcher. He became a careful observer – not just of nature, but of people, of choices, and of God’s quiet nudges.

He’d learned something important:

Sometimes, the wisest thing you can do... is to watch without being seen.

C) Narration

Parent/Tutor Says:

"Tell me the story back in your own words. What was Jake trying to find? What did he learn about the tawny frogmouth? How did it stay hidden? What made this bird so good at watching without being seen? Why is attentiveness important in this story – for both animals and people?"

Encourage older students to include scientific terms like **camouflage**, **cryptic posture**, or **fringed feathers**, and discuss behaviour as well as appearance.

D) Activity Options

Option 1: Camouflage Spot-the-Creature Game

You'll need:

- Photos of camouflaged animals (printouts, books, or on a screen)
- Optional: Hide small plastic animals or natural items outside or indoors

Instructions:

1. Show camouflaged images – ask children to spot the hidden creature.
 2. If outdoors, hide toy animals or natural items like pinecones or bark.
 3. Children search and record what they found.
 4. **Discuss:** What made it hard to spot? What tricks did the animals use – colour, shape, posture, stillness?
-

Option 2: Predator vs. Prey Drama Game

Instructions:

1. One child is the “predator”; the other is “prey.”
 2. The prey must cross a room or garden without being seen.
 3. The predator stays very still, watching closely. If they see the prey move, they “tag” them.
 4. Switch roles. Try again.
 5. **Reflect:** Which was harder – staying still and alert or sneaking quietly?
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What did Jake want to find in the bush?
- Why was the bird hard to see?
- What do you do when you want to stay very still?

ii) Middle Primary Students (Ages 8–10):

- How did the tawny frogmouth stay safe?
- What does it mean to be watchful or alert?
- Can you think of a time when being quiet helped you notice something special?

iii) Upper Primary Students (Ages 11–12):

- Why do some animals rely on stillness and observation to survive?
 - How is attentiveness like camouflage – both in the wild and in life?
 - How can we learn to “watch without being seen” in our friendships, learning, or faith?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“The prudent see danger and take refuge, but the simple keep going and pay the penalty.” – Proverbs 22:3

Parent/Tutor Says:

"God calls us to be watchful – not just in nature, but in life. Some animals, like the tawny frogmouth, survive because they are still, quiet, and observant.

In the Bible, we are told to be alert – to notice what's happening around us and to choose wisely.

We don't need camouflage feathers to be wise – but we do need attentiveness. We can learn to be quiet, patient, and aware. That's how we see what matters – and how we grow in wisdom."

Reflection Question:

What's one way you can practise watchfulness this week – maybe by being still, more observant, or more aware of the world (or people) around you?

Lesson 17: How Animals Use Their Senses

Topic: Predator & Prey

Ages: 5–12

Character Focus: Attentiveness (Being sensitive to what's going on around us using all our senses)

A) Introduction

Parent/Tutor Says:

"Animals survive in the wild by using their senses – sight, hearing, smell, touch, and even taste – to find food or avoid danger.

Some predators can see in the dark. Some prey animals hear even the tiniest movement. God designed each creature with exactly the senses it needs to survive.

We have senses too – not just to stay safe, but to help others, to learn about the world, and to listen for God's voice.

Let's begin with a story about two cousins who learned just how powerful – and important – our senses really are."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

“Nina and Josh and the Night Senses Game”

Nina and her cousin Josh were spending the school holidays on their uncle and aunt's farm in western New South Wales. The sky stretched wide above the paddocks, and the air smelled like gum trees and sheep wool. Every morning, they helped collect eggs, feed the chickens, and chase the ducks away from the veggie patch.

But the best part was the nights.

The stars out there were like nothing they had ever seen in the city. Without streetlights, the sky turned into a theatre of light. The Milky Way was clear, and sometimes they even saw shooting stars zip across the black.

One night, as they sat on the back steps eating apples, Uncle Pete stepped out holding a torch and a cheeky grin.

“Want to play a game?” he asked.

Josh looked up. “Sure! What kind?”

“I call it the *Night Senses Game*,” said Uncle Pete. “It's all about noticing things the way animals do – especially when you can't see very well.”

Josh laughed. “Easy! I've got great eyes.”

Uncle Pete raised an eyebrow. “We’ll see about that.”

Into the Dark

Uncle led them into the paddock behind the shed. It was quiet except for a few crickets and the wind rustling the dry grass. The moon hadn’t risen yet, so everything was dim.

“You won’t be using your eyes for this,” Uncle Pete said. “Animals that hunt or escape in the dark rely on all kinds of senses – hearing, smell, touch, even special ones we humans don’t have.”

Josh rolled his eyes. “But we’re not animals.”

Uncle Pete smiled. “Maybe not – but we can learn from them.”

Round One: Sound

Uncle Pete stood behind them and snapped a small twig.

“Which direction did the sound come from?”

Nina pointed right. Josh pointed left.

“Nina’s correct,” Uncle said. “That’s called directional hearing. Some animals, like owls, have asymmetrical ear openings – one higher than the other – so they can tell exactly where a sound is coming from. They can even hear tiny mice under snow!”

Josh crossed his arms. “Lucky guess.”

Round Two: Smell

Uncle held out two leaves. “Close your eyes. Smell these.”

Nina sniffed the first one. It was strong, fresh, and reminded her of soap. “That’s lemon myrtle,” she said confidently.

Josh took a turn. “Um... mint?”

“Nope,” Uncle chuckled. “Nina’s right again.”

He explained that animals like dogs, sharks, and even insects have an extraordinary sense of smell. A dog can detect one teaspoon of sugar in a million litres of water. Sharks can smell blood from hundreds of metres away.

“God designed each creature with exactly the senses it needs to thrive,” Uncle said. “Some animals, like moles, can’t see well at all. But they can sniff out worms underground!”

Round Three: Vibration

Now Uncle had them kneel on the grass with their eyes closed.

“I’m going to walk slowly around you. Don’t peek. When I stop, tell me where I am.”

He walked silently through the grass, his steps soft and measured.

“Where am I?” he whispered.

Nina pointed behind her. Josh pointed left again.

“Correct again, Nina!”

Josh groaned.

“I felt the ground shift a little under my knees,” Nina explained. “Just barely.”

Uncle grinned. “That’s sensitivity to vibration. Some snakes use it to detect footsteps. Elephants can feel low rumbles through the ground. Even spiders can sense tiny movements in their webs.”

Josh looked amazed. “I didn’t feel anything at all.”

Animal Senses Explored

After the game, they walked slowly back toward the house. Uncle Pete started listing some amazing animal abilities.

- “Cats can see in almost total darkness. Their eyes have a special layer called the **tapetum lucidum**, which reflects light and gives them better night vision.”
- “Bats use **echolocation**. They make high-pitched sounds and listen for echoes to ‘see’ in the dark.”
- “Some birds can see ultraviolet colours, invisible to human eyes.”
- “Bees use smell and UV light to find flowers.”
- “Rattlesnakes can detect heat from warm-blooded animals using **infrared pits** near their noses.”

Josh blinked. “It’s like animals have superpowers!”

Nina nodded. “And we barely notice the amazing stuff they do.”

The Power of Attention

Later that night, their aunt read from the Bible before bed.

“Whoever has ears, let them hear.” – Matthew 11:15

Josh looked puzzled. “But... everyone has ears.”

Auntie Beth smiled. “Yes – but not everyone listens. Jesus meant we should be *attentive* – not just to words, but to what’s happening around us, and what God might be teaching us.”

Nina whispered, “Like paying attention to more than what we see.”

Josh nodded slowly. “I guess I use my eyes a lot – but not the other stuff.”

“That’s why the Night Senses Game is so good,” Aunty said. “It reminds us we’ve got more tools than we think.”

The Next Morning

The next morning, as the sky lightened and the kookaburras laughed in the trees, Nina and Josh walked through the paddock without talking.

They paused and closed their eyes.

They heard the distant bleating of sheep, the swish of wind, the creak of the gate. They smelled damp earth and fresh hay. They felt the sun warming their arms.

Josh opened his eyes. “This is... kind of amazing.”

Nina grinned. “Feels like I’m seeing more – but with everything except my eyes.”

Josh pulled out his notebook and started writing:

“Things I Noticed Today Without Seeing:

- The cold patch of dew on the grass
- The hum of bees in the distance
- The difference between two kinds of gum leaves
- My heartbeat speeding up when I listened harder
- The smell of sheep, dirt, sunshine
- The breeze on the back of my neck”

That day, Uncle Pete gave them each a small jar of eucalyptus oil and said, “Here’s a reminder – stay alert. God gave you senses for a reason.”

What They Learned

Back in the kitchen, Nina flipped open her wildlife journal and wrote this:

“Senses aren’t just tools. They’re gifts.

Animals don’t waste them – and we shouldn’t either.

Attentiveness means *noticing*.

God uses our senses to teach us, warn us, and help us enjoy His world.”

Josh wrote beside it:

“I want to listen like an owl, feel like a snake, smell like a shark, and hear like a bat.

But most of all, I want to listen to God better.

He speaks quietly – but I think I can hear Him more now.”

C) Narration

Parent/Tutor Says:

"Can you tell me what happened in the story? What game did Uncle Pete play with the kids? What did Nina notice that Josh didn't? What amazing things can animals do with their senses? What did the story teach us about being attentive with more than just our eyes?"

Encourage older children to include examples of echolocation, vibration, scent trails, and listening with the heart.

D) Activity Options

Option 1: Animal Senses Station Game

Setup: Create different "sense stations" around your home or yard.

Station Ideas:

- **Sound:** Close eyes and guess the sound (e.g. tapping spoons, tearing paper, animal call recordings).
- **Smell:** Use cotton balls in jars with lemon, mint, vinegar, vanilla, etc. Guess the smell.
- **Touch:** Mystery bag – guess what's inside by feel (e.g. pinecone, feather, sponge, rock).
- **Sight:** Show camouflaged animal photos – can they spot them?

Discussion:

Which sense was easiest? Which was hardest? Which animals might rely most on that sense?

Option 2: Animal Senses Charades

Instructions:

1. Write animal names on cards based on their strongest senses (e.g. bat = sound, owl = hearing, dog = smell, snake = vibration).
 2. Children take turns acting out how that animal uses its sense.
 3. Others guess the animal and the sense.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What sense did Nina use best?
- Can you name an animal with great hearing or smell?
- Which sense do you like using the most?

ii) Middle Primary Students (Ages 8–10):

- Why do animals need to be attentive to survive?
- How are our senses similar or different to animals?
- What do you think it means to "listen with your heart"?

iii) Upper Primary Students (Ages 11–12):

- How can sharpening our senses help us grow in attentiveness?

- What's one sense you sometimes ignore, and how could you use it more intentionally?
 - In what ways might God use your physical senses to teach you spiritual lessons?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Whoever has ears, let them hear.” – Matthew 11:15

Parent/Tutor Says:

"Jesus said this many times – ‘Whoever has ears, let them hear.’ But He wasn’t just talking about ears – He meant, be attentive. Don’t miss what matters.

Animals use their senses to stay safe, hunt, and hide. We use ours to understand, help others, and follow God.

Attentiveness is a habit. It grows stronger when we practise using all our senses – not just our eyes."

Reflection Question:

Which of your five senses do you think you need to use more attentively – at school, at home, or when listening to God?

Lesson 18: Escape and Defence

Topic: Predator & Prey

Ages: 5–12

Character Focus: Attentiveness (Noticing danger, choosing wisely, avoiding trouble)

A) Introduction

Parent/Tutor Says:

"In our last two lessons, we learned how animals stay safe by watching without being seen, and by using their amazing senses. But sometimes, that's not enough.

When danger is close, animals must act fast – by escaping or defending themselves. Some use colour, smell, spikes, speed, or trickery. Each creature has a unique survival strategy that shows God's wise design.

We also face choices in life that require us to pay attention and respond wisely. Let's listen to a story about a boy who discovered that survival isn't always about strength – it's about attentiveness and wisdom."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

"Sam and the Survival Showdown"

Sam loved wildlife documentaries. He could watch cheetahs chase gazelles or chameleons flick their tongues at insects for hours. But his favourite part of any show was the "survival scene" – when the animal had to make a choice: fight, flee, or hide.

At home, Sam often turned the backyard into a pretend jungle. He was a kangaroo one moment, a crocodile the next. His little brother always wanted to be the lion, but Sam preferred the prey. Why? Because it meant he had to outsmart the predator. He had to pay attention.

One weekend, Sam's family took a trip to a wildlife park. As they walked past koalas, kangaroos, and dingoes, a sign caught Sam's eye.

"Escape & Defence: The Secret Skills of Animals"

Interactive Exhibit – Learn how God's creatures stay safe!

Sam tugged Dad's sleeve. "Can we go in?"

Inside the exhibit was a series of glass enclosures and interactive panels. There were signs, sounds, videos, and real-life creatures – each with a special way of escaping danger.

The first animal Sam saw was a **stick insect**. It clung motionless to a branch.

"It's pretending to be a twig," Sam whispered.

A zookeeper nearby explained, "That's called *camouflage*. The insect avoids predators by blending in with its surroundings. If it stays still, most birds won't even see it."

The next creature was a **blue-tongue lizard**. When a recorded hawk sound played nearby, the lizard puffed up, hissed, and stuck out its bright blue tongue.

“It’s trying to scare the predator,” Sam said. “Make it think it’s dangerous!”

“Exactly,” said the keeper. “This is called *deimatic behaviour* – a type of bluff. Many animals use sudden displays to frighten their attackers.”

Next came the **echidna**, curled into a tight ball with its spiky back exposed.

“If a predator tries to bite it,” said the keeper, “it just becomes a spiny ball. Even dingoes won’t bite that!”

Sam was impressed. He scribbled down notes in his sketchpad. Camouflage. Bluffing. Armoured defence.

Then he saw something glide between two trees.

“Was that a sugar glider?” he asked.

“Yes!” the keeper said. “When danger comes from below, it jumps and *glides* away. It uses loose skin between its limbs to steer through the air. That’s called *aerial escape*.”

Sam’s eyes lit up. “I’d just run!”

The keeper chuckled. “Not every creature can run fast. Some are slow – but very clever. They use what God gave them.”

A Bush Adventure

That afternoon, the family went for a bushwalk near the edge of the reserve. While Dad and Mum unpacked lunch, Sam and his cousins decided to play a game of Predator & Prey.

Sam volunteered to be a prey animal first.

“I’m going to be a quokka!” he declared. “Fast and bouncy!”

“Good luck escaping!” called his cousin Max, who was playing the predator.

Sam dashed off, leaping and weaving between bushes.

But within minutes, Max tagged him.

“Caught ya!”

They started again. Sam ran in a zigzag. He hid behind a log. But somehow, Max kept spotting and catching him.

Finally, Sam paused and thought. “What if I stop running?”

He crouched behind a tree, held very still, and tried to blend into the background.

Max walked right past.

“Where’d he go?” he muttered.

Sam waited, then tiptoed behind a bush.

The next time, Sam mimicked the stick insect. He pressed against a branch, staying completely still. Max came close... then turned away.

After that, Sam tried even more tricks:

- He froze like a rock.
- He dropped flat like a frog.
- He tossed a handful of dry leaves to create a distraction.
- He zigzagged like a rabbit and dodged behind a stump.

Each time, Sam escaped – not by being faster, but by being smarter and more attentive.

Back at the Camp

That evening, as they sat around the campfire, Sam pulled out his nature journal and began drawing the animals from the exhibit.

He wrote:

“Stick insect = camouflage
Blue-tongue = scary tongue bluff
Echidna = armour and curl-up
Sugar glider = jump and glide
Possum = pretend to be dead (fool the predator)
Skink = drops its tail and runs
Cuttlefish = colour change & ink escape
Pufferfish = puff-up to look scary
Moth = eyespots on wings
Octopus = vanishes in a cloud of ink + colour change”

“Sam,” Dad said, “what was your favourite part of today?”

“The echidna was pretty cool,” Sam said. “But also the sugar glider. Actually... all of it!”

Dad opened the Bible and read a verse:

“The prudent see danger and take refuge, but the simple keep going and suffer for it.” – Proverbs 27:12

Sam thought for a moment. “The animals that survive aren’t always the fastest,” he said. “They just... pay attention.”

Dad smiled. “Exactly. God gave each creature a way to escape – if they’re alert. It’s the same for us. When we’re attentive, we avoid a lot of trouble.”

The Science Behind the Survival

Later that night, Sam used a torch in the tent to read a book about animal defences.

He learned some amazing terms:

- **Camouflage** – using colours and patterns to blend into surroundings
- **Mimicry** – looking like something else (like a harmless butterfly that looks like a poisonous one)
- **Autotomy** – dropping a body part to distract predators (like lizards dropping tails)
- **Chemical defence** – releasing bad smells or toxins (like skunks or bombardier beetles)
- **Feigning death** – pretending to be dead so the predator loses interest
- **Armour and spines** – physical barriers like turtle shells or porcupine quills

Sam wrote in big letters:

“God’s design is *amazing*!”

Then he paused and added:

“And maybe I don’t always need to fight back. I can stop, notice, choose wisely... and step away.”

The Morning After

The next morning, Sam noticed something new. A group of ants was marching across a rock – but when his shadow passed over them, they stopped. Froze.

“They noticed danger,” he whispered.

When a bird landed nearby, the ants scattered in all directions – some ran, some hid in cracks.

Sam smiled. “Tiny brains. Big instincts.”

He added a final note in his journal:

“Being attentive is better than being strong. Animals don’t panic. They watch first.”

That night, during bedtime prayers, Sam thanked God for clever creatures and asked for one thing:

“Help me be more like them, Lord. Attentive. Wise. Ready.”

C) Narration

Parent/Tutor Says:

"Tell me the story in your own words. What animals did Sam learn about? What were their escape or defence strategies? What did Sam try during the game? What did he discover about paying attention and responding wisely?"

Encourage older students to use terms like camouflage, mimicry, bluffing, and distraction.

D) Activity Options

Option 1: Escape & Defence Role-Play

Instructions:

1. Choose an animal and act out how it defends itself. Examples:
 - Curl up in a ball (echidna)
 - Play dead (possum)
 - Freeze in place (stick insect)
 - Puff up and hiss (blue-tongue lizard)
 - Glide away (sugar glider – pretend to jump from tree to tree)
 2. After each demonstration, discuss:
 - Why does this method work?
 - What kind of predator would it fool?
-

Option 2: Design a Defending Creature

You'll need:

- Paper and coloured pencils or markers

Instructions:

1. Design an imaginary animal that has at least 3 escape or defence strategies.
E.g. "My creature can blend into trees, shoot stinky spray, and run in zigzags."
 2. Draw and label each part of the creature.
 3. Share the drawing and explain how each feature helps it stay safe.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What are some ways animals stay safe?
- Which defence do you think is the funniest or most clever?
- When do you need to be careful or quick in real life?

ii) Middle Primary Students (Ages 8–10):

- Why don't animals always run to escape?
- What does it mean to "take refuge"?
- Can you think of a time you avoided trouble by being wise?

iii) Upper Primary Students (Ages 11–12):

- Why is attentiveness better than panic in dangerous situations?
 - What are some ways people need to defend themselves from bad ideas or situations?
 - How can you practise stopping to think before you act – like the animals in the story?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“The prudent see danger and take refuge, but the simple keep going and suffer for it.” – Proverbs 27:12

Parent/Tutor Says:

"God created animals with amazing ways to escape danger. Some freeze. Some run. Some pretend. But they all have one thing in common: they pay attention.

We may not have spines or camouflage, but we do have wisdom from God. We can learn to notice when something is wrong, step away from trouble, ask for help, or pause before reacting.

Being attentive helps us make wise decisions – just like the creatures Sam saw in the story."

Reflection Question:

Is there a situation this week where you need to be more watchful or more thoughtful – at home, at school, or with your friends?

TOPIC 7	TRACKING & TRAPPING; ABORIGINAL BUSH SCIENCE

Lesson 19: Reading the Land

Topic: Tracking & Trapping

Ages: 5–12

Character Focus: Attentiveness (Noticing patterns, clues, and signs in the land; listening to the wisdom of elders)

A) Introduction

Parent/Tutor Says:

"Today's lesson is about something amazing that Aboriginal trackers and other skilled bush observers can do: read the land.

Reading the land means looking carefully at footprints, disturbed leaves, broken branches, tiny tracks, and patterns in the dirt – and understanding what they mean.

This kind of attentiveness takes patience, silence, and lots of practice. It's also a way of listening to the world God made. The Bible tells us that creation speaks – if we are paying attention.

Let's begin with a story about a boy who discovers how to see with new eyes."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Callum and the Dust Prints"

Callum had never spent much time in the bush. He was a city boy – more into soccer than sand, more into screens than trees.

But these holidays, he was staying with his grandfather, who lived in a small town near the red dust tracks of central Australia.

One morning, Grandpa handed Callum a stick. "We're going tracking," he said.

"Tracking what?" Callum asked, raising an eyebrow.

“Animals. Movement. Signs in the land,” Grandpa said. “We don’t need to *chase* them. We just need to *read* the story they’ve left behind.”

Callum followed, not sure what to expect.

They came to a dusty patch of ground. Grandpa pointed to a shallow imprint. “What do you see?”

“Just a hole,” Callum shrugged.

“Look again.”

Callum crouched. The edge of the mark was smooth on one side, scuffed on the other. There was a small crescent beside it. Grandpa smiled.

“That’s a kangaroo print. The long mark is the tail. It’s moving *that* way,” he said, pointing.

“How do you know?”

Grandpa chuckled. “You’ve got to see with more than your eyes. You’ve got to feel the story.”

They walked further and found tiny lines in the dirt.

“Snake,” Grandpa said. “It slid through here at night – see the curve?”

They found twisted grass. Broken twigs. A feather on a log. And finally, a series of small tracks heading towards the creek.

“Wallaby,” Grandpa said. “She came down for a drink.”

Callum was amazed. “How do you *know* all this?”

Grandpa tapped his walking stick on the ground. “The land speaks, if you learn how to listen.”

Later, they sat under a shady tree.

“When I was a boy,” Grandpa said, “one of my uncles – an Aboriginal elder – taught me how to track. He showed me that you have to be quiet, patient, and respectful. You don’t stomp on the signs. You *watch*, *wait*, and *learn*. That’s what good trackers – and good people – do.”

That night, Callum wrote in his journal:

“Today I saw a story written in dust. I want to learn to read like that.”

Later, Grandpa read from Job 12:

“But ask the animals, and they will teach you... or the birds in the sky, and they will tell you... or speak to the earth, and it will teach you.” – Job 12:7–8

Callum whispered, “I think I started listening today.”

And from that moment, he never looked at the ground the same way again.

C) Narration

Parent/Tutor Says:

"Tell me the story in your own words. What did Callum learn from his grandfather and Uncle Roy? What kind of signs did they find in the land? How did Callum start to 'listen' to the earth and see with more than just his eyes?"

Encourage children to mention examples such as kangaroo tracks, bird take-off swooshes, snake curves, ant trails, and Uncle Roy's quiet teaching style. Let older students reflect on the quote: "*You don't need to shout to be wise.*"

D) Activity

Option 1: Track & Sign Discovery Walk

You'll need:

- An outdoor area with dirt, grass, sand, or mud
- Optional: toy animals, shoes, or tools to make tracks
- Notebook or paper for drawing or describing observations

Instructions:

1. Go on a slow, quiet walk. Look closely at the ground, the plants, and small details.
 2. Try to spot:
 - Footprints (human, bird, pet, insect)
 - Disturbed grass or moved leaves
 - Snapped twigs or feathers
 - Tracks in sand, mud, or dust
 3. Record or draw what you find. Try to "read the land" – what might have happened here?
-

Option 2: Make Your Own Tracking Area

You'll need:

- A tray or box with flour, damp soil, or sand
- Toy animals, kitchen utensils, or your own hands/feet
- Optional: small brush to smooth the surface

Instructions:

1. Press different objects into the tray to create tracks or patterns.
 2. Smooth the surface between tests.
 3. Mix them up and invite someone else to guess what made each track.
 4. Reflect: What clues helped you figure it out?
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What signs did Callum and Grandpa find in the story?

- What does it mean to “read the land”?
- What’s something you’ve noticed outside lately?

ii) Middle Primary Students (Ages 8–10):

- Why do good trackers need to be quiet and patient?
- What kind of things can you learn by watching nature closely?
- What does it mean that the earth can “teach” us, like it says in Job?

iii) Upper Primary Students (Ages 11–12):

- What does it mean to “see with more than your eyes”?
- How might tracking help us become more attentive in life – not just to animals, but to people, to God, and to what’s really going on?
- How can we honour the land and show respect to Aboriginal Elders and their wisdom?

F) Biblical Connection & Wrap-up

Bible Verse:

“Ask the animals, and they will teach you... speak to the earth, and it will teach you.” – Job 12:7–8

Parent/Tutor Says:

"God’s creation speaks in quiet ways. The patterns in the sand, the tracks in the dust, and the flight of a bird all tell part of the story of life – and God is the one who made it that way.

Just like Callum learned from his grandfather and Uncle Roy, we can grow wiser when we pay attention to the land and listen to those who know how to read it.

The Bible says the earth itself can teach us – and when we slow down and become attentive, we begin to understand God’s world and His ways more deeply."

Reflection Question:

What’s something you might notice this week if you really start “reading” your surroundings more attentively – whether it’s in nature, in other people, or in the small details of your day?

Lesson 20: Bush Tools and Natural Resources

Topic: Aboriginal Bush Science – Part 1

Ages: 5–12

Character Focus: Attentiveness (Being respectful of the land, careful with resources, and listening to wisdom)

A) Introduction

Parent/Tutor Says:

"Today we're learning about something amazing: how Aboriginal people for thousands of years have used the land wisely to make bush tools and gather natural resources.

They didn't have factories or machines – but they didn't need them. They had attentiveness – watching how nature works, learning from their Elders, and using only what was needed with great care and respect.

Let's start with a story about a girl named Marli, who gets to try her hand at making bush tools and learns what it means to listen to the land."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

“Marli and the Old Tree Camp”

Marli was buzzing with excitement. Her school had organised a bush camp, and a small group of students had been invited to join a cultural learning weekend with local Aboriginal Elders. They were camping near an old riverbed, where tall ghost gums leaned quietly and paperbark trees rustled in the breeze.

When they arrived, the students unpacked their bags and rolled out swags. They were greeted by Uncle Dave, an Elder known across the region for his deep knowledge of country and bush living.

“The land speaks,” Uncle Dave said with a calm voice. “If you slow down and listen, you’ll learn something special.”

The first thing Marli noticed was that everything felt... slower. There was no rush. No blaring bells. No buzzing phones. Just wind, birdsong, and the distant hum of insects.

On the first day, Uncle Dave took them to a large fallen tree. He crouched beside the trunk and gently touched the bark with his fingers.

“This wood is good for making digging sticks,” he said. “Not too hard. Not too soft. It listens well.”

Marli wasn't sure what he meant by that, but she watched closely. Uncle Dave didn't just pick up the first stick he saw. He examined the grain, tapped the surface, turned it slowly in his hands. Then he chose one and began scraping the bark with a stone tool.

He handed Marli a piece. “You try.”

She hesitated. “How do I know if it’s right?”

“You feel it,” he said, smiling. “It’ll tell you if you’re listening.”

Marli picked a straight branch and began copying his movements. The bark was rough and flaked away in strips. The stick slowly began to feel smooth under her fingers. She liked the rhythm. Scrape, turn, scrape.

Later, they sat on woven mats and learned how to strip fibres from pandanus leaves. Uncle Dave showed them how to twist the fibres between their fingers, slowly turning them into a strong cord.

“It’s a quiet work,” he said. “Fast hands don’t help here. Just slow thoughts and good eyes.”

Some kids groaned or got distracted. But Marli was focused. Her first cord was bumpy and uneven, but it held together. Uncle Dave gave her a nod.

That afternoon, they went for a walk through the bush. Uncle Dave pointed out different trees, shrubs, and grasses.

“This one keeps away insects,” he said, brushing his hand along a plant with thin, strong leaves. “We rub it on our skin.”

He pointed to another tree. “That bark’s good for headaches.”

Marli was amazed. The bush was like a natural pharmacy – and a toolbox too.

They came to a riverbank where the kids learned to make string bags using reeds and grass. It took patience and careful knot-tying. Marli’s fingers hurt, but she kept going.

One of the boys huffed. “It takes forever!”

Uncle Dave chuckled. “That’s because you’re thinking fast. Bush work needs slow thoughts and good eyes. If you try to rush the land, you miss the lesson.”

That evening, as the sun dropped low and the stars blinked awake, they sat around the fire. Uncle Dave roasted some yams and shared stories about how the old people used to live – walking long distances, never wasting anything, and always sharing what they had.

“Everything you need,” he said, “if you learn what to look for – and don’t take more than you need.”

Marli held her digging stick in her lap. It was rough and crooked, but it was hers. She’d made it. With her hands. With her attention.

Before bed, Uncle Dave read a verse from the Bible that surprised her:

“Whoever can be trusted with very little can also be trusted with much.” – Luke 16:10a

He looked up and said, “This land has looked after our people for thousands of years. But we have to look after it too. With gentleness. With honour. When we’re careful with the small things, we become strong with the big things.”

Marli nodded slowly. She wasn’t sure she fully understood, but something about it stayed in her heart.

The Next Day

The next morning, Uncle Dave gave them a new challenge: making a simple firestick. He showed them how to find a dry, straight stick and rub it slowly against a hardwood base.

“It’s not about strength,” he said. “It’s about rhythm. Heat builds from patient hands.”

Marli’s arms ached, but she tried. Uncle Dave gently corrected her posture and encouraged her to go slower.

“Don’t fight the wood,” he said. “Work with it.”

They also learned how different plants were used in seasonal ways. Some could only be harvested after rains. Others needed to rest so they wouldn’t disappear.

One girl asked, “How did people figure all this out?”

Uncle Dave smiled. “By paying attention. Watching the birds. Watching the soil. Listening to the elders. Listening to the trees.”

After lunch, they learned how ochre could be ground into powder and mixed with water to create paint. Uncle Dave showed them how ochre had been used in cave art, ceremonies, and storytelling.

“Even colour has meaning,” he said. “Even a simple line on a rock can hold truth.”

That night, as they packed their belongings to return home, Marli held her digging stick and cord in her hands. They weren’t perfect. But they were proof – proof that she could learn to be patient. Proof that she could make something real.

Before climbing into her swag, she whispered a prayer:

“God, help me be faithful with little things. And teach me to listen better – to people, to the land, and to You.”

Marli was excited. Her school was doing a bush camp with local Aboriginal Elders, and she’d been chosen to join. They were camping near an old riverbed, surrounded by ghost gums and paperbarks.

Uncle Dave, an Elder and bush teacher, welcomed them with a quiet smile.

“The land speaks,” he said, “if you slow down and listen.”

On the first day, Uncle Dave took them to a fallen tree. He crouched beside the trunk and began gently scraping the bark.

“This wood is good for making digging sticks,” he said. “Not too hard, not too soft.”

Marli watched closely. Uncle Dave didn’t just grab the first stick he saw. He turned it over, checked the grain, tapped it, listened.

He handed her a piece. “You try.”

She hesitated. “How do I know if it’s right?”

“You feel it,” he said. “It’ll tell you if you’re listening.”

Marli chose a straight branch and began smoothing it with a stone, copying Uncle Dave's calm, slow movements.

Later, they found pandanus leaves and learnt how to strip and weave them into cord. Then they made string bags and tied knots the old way – watching how Uncle Dave's fingers moved like a quiet dance.

One boy got frustrated. "It takes forever!"

Uncle Dave smiled. "That's because you're thinking fast. But bush work needs slow thoughts and good eyes."

They learned which leaves could keep away insects, which plants healed cuts, and which woods made the best firesticks.

"Everything you need," Uncle Dave said, "if you learn what to look for, and don't take more than you need."

That night, Marli sat by the fire, looking at her digging stick. It was rough, but real. She'd made something with her hands and her attention.

Before bed, Uncle Dave shared a verse that surprised her:

"Whoever can be trusted with very little can also be trusted with much." – Luke 16:10a

"This land has looked after our people," he said. "But we must care for it with gentleness and honour. When we're attentive with the small things, we become strong with the big things."

Marli thought about that as the fire crackled. She looked at her hands, her stick, and the stars.

And she whispered, "Thank you."

C) Narration

Parent/Tutor Says:

"Tell me what happened in the story. What did Marli learn to make? What did Uncle Dave teach the students about working with the land? What did the Bible verse mean about being trusted with little things? How did Marli change from the beginning of the story to the end?"

Encourage responses about listening, slowness, respect, using natural materials, bush knowledge, and the emotional connection Marli developed with the land and her tools.

D) Activity Options

Option 1: Try a Bush Craft Skill

You'll need:

- Sticks, leaves, bark, or other natural materials (collected respectfully)
- Safe tools: stone, butter knife, or sandpaper for shaping
- Optional: wool, raffia, string for weaving or tying

Instructions:

1. Collect natural materials from the ground – never pick from living trees.
 2. Try one or more of the following:
 - Smooth or shape a stick like a digging stick
 - Weave leaves or fibres into simple cords or bands
 - Tie knots to make a handle or simple tool
 3. Focus not on perfection, but on patience, quiet work, and attentiveness.
-

Option 2: Design a Bush Toolkit

You'll need:

- Paper, pencils, coloured markers

Instructions:

1. Draw 3–4 tools that could be made from natural materials.
 2. Label what each tool is made from (e.g. “digging stick from wattle,” “cord from grass fibre”).
 3. Describe what each tool is for – and one way to use it respectfully, without harming the land.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What did Marli make with her hands?
- What did Uncle Dave use from the bush?
- Why is it important to take care of the land?

ii) Middle Primary Students (Ages 8–10):

- What made Uncle Dave such a good teacher?
- Why do bush tools take time and careful work?
- What can we learn from using only what we need?

iii) Upper Primary Students (Ages 11–12):

- How does attentiveness help when working with your hands?
 - What's the connection between being “trusted with little things” and caring for natural resources?
 - How can we honour Aboriginal wisdom about land and resources?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Whoever can be trusted with very little can also be trusted with much.” – Luke 16:10a

Parent/Tutor Says:

"God gave us this world to care for, not to waste. When we practise attentiveness with small things – like a leaf, a stick, a job, or a friendship – He can trust us with more. Aboriginal peoples have shown deep wisdom in caring for the land through careful observation, respect, and tradition.

We can learn from them and from the example of Jesus, who valued humble service and simple attentiveness."

Reflection Question:

What's one small way you can show care and respect this week – for nature, for people, or for the tools and resources you use?

Lesson 21: Fire, Cooking, and the Wisdom of the Elders

Topic: Aboriginal Bush Science – Part 2

Ages: 5–12

Character Focus: Attentiveness (Learning from wise leaders, being careful with fire, honouring tradition and story)

A) Introduction

Parent/Tutor Says:

"Today's lesson is about fire – but not just any fire. We're learning about the clever and caring way Aboriginal people have used fire for thousands of years.

Fire can be dangerous, but it can also be helpful – for cooking, clearing land, encouraging new growth, and gathering community.

Aboriginal Elders teach children not just how to light a fire, but how to watch it, respect it, and learn from it. Let's begin with a story about a boy who discovers how much wisdom there is around a campfire."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Luka by the Fire"

Luka liked things fast. Fast bikes. Fast games. Fast food. He didn't like slow mornings, slow lines, or slow conversations. And he definitely didn't like slow school camps.

So when his teacher announced that their class would be going on a bush camp to learn from local Aboriginal Elders, Luka groaned.

"I bet we just sit around the fire all day," he muttered to his friend Noah.

But Luka's attitude began to shift the moment they arrived.

The camp was set in a clearing beside a dry creek bed. Tall gum trees reached overhead, and birds flitted between branches. There were no buildings – just tents, a small fire circle, and a gathering of smiling Elders, each with eyes that seemed to hold stories.

Uncle Noel, the senior Elder, welcomed the group.

"This land has looked after us for many, many generations," he said. "Now it's time we listen to what it's saying."

That night, as the sky darkened and stars began to appear, the group gathered around a small, carefully prepared fire. Uncle Noel lit it with a single match, placed gently under kindling, and waited patiently as the flame took hold.

He didn't speak right away. The fire crackled softly. The students shifted restlessly.

Then Uncle Noel said, "This fire is a teacher."

Luka looked up.

"It gives us warmth, cooks our food, helps us see. It clears the land and helps it grow again. But it can also destroy. So we watch it. We don't play with it. We learn from it."

For the next hour, the students sat in silence as Uncle Noel shared stories passed down from his grandfather – and his grandfather's grandfather.

He told of how fire was used to manage grasslands carefully: burning in small, slow patches so animals could return safely, and plants could regrow healthier.

He told of seeds that only sprouted after fire had touched the earth.

He told of cooking food in ground ovens – using hot coals and bark to bake yams and meat until they were tender and sweet.

And he told of how the fire brought families together. "It's where we listen. Where stories grow."

Luka sat quietly, the flames reflecting in his eyes.

The Next Morning

The next day, Luka joined a small group learning how to prepare a fire pit for cooking.

Uncle Noel showed them how to dig a shallow hole and line it with stones. They built a small fire in the centre and let it burn down to glowing coals.

Then they wrapped yams and kangaroo meat in bark, laid them over the coals, and covered everything with earth and leaves.

"It'll take a while," Uncle Noel said. "But it's worth the wait."

While they waited, he handed Luka a stick and said, "Draw what the fire looked like last night."

Luka frowned, then scratched a rough flame into the dirt.

Uncle Noel nodded. "Good. Now draw what you felt."

Luka blinked. "Felt?"

"Yes. Inside."

He paused, then drew a circle of people sitting together. Some laughing. Some quiet. All around the fire.

Uncle Noel smiled. "That's the real story."

Slow Fire, Strong Roots

Over the next two days, Luka began to see fire differently. It wasn't just heat. It was history.

He learned about firesticks used for clearing paths. He learned that fast-burning fires, like the kind that destroy forests today, were never part of traditional land care.

"We burn slow and cool," Uncle Noel explained. "So life can come back. So the animals can come home. So the seeds can grow."

Luka had never thought about fire in this way. He always thought of it as something wild or dangerous. But now he saw it could also be gentle. Thoughtful. Even helpful – if used with care.

The food they uncovered from the fire pit was soft and smoky. The students shared it in silence, chewing slowly, savouring every bite. It tasted better than any fast food Luka had ever eaten.

That evening, they sat around the fire again.

Uncle Noel read from his Bible:

"Wisdom is more precious than rubies, and nothing you desire can compare with her." – Proverbs 3:15

Then he looked around the circle and said, "Wisdom doesn't shout. It flickers – like this fire. You have to sit close and watch."

Luka felt a strange warmth in his chest. He thought about the people who had sat by fires like this for thousands of years. People who knew how to use fire to help the land, not hurt it. People who learned by listening.

Changed by Fire

That night, Luka didn't say he was bored. He didn't ask for Wi-Fi. He didn't even check the time.

Instead, he sat by the fire and thought. He remembered the quiet voice of Uncle Noel. He remembered the sweet taste of slow-cooked yam. He remembered the glowing coals, the careful hands, the circle of people drawn close.

He thought about what it meant to be slow. To be careful. To be attentive.

And just before he went to bed, he whispered a prayer:

"God, help me learn from fire. Help me be more like Uncle Noel – patient, wise, and gentle."

From that moment on, Luka never thought of fire the same way again.

C) Narration

Parent/Tutor Says:

"Now I want you to tell the story back to me. What did Luka learn about fire? What made Uncle Noel such a wise teacher? What was different about the way Aboriginal people use fire? How did Luka change by the end of the story?"

Encourage children to mention the cooking pit, firestick farming, slow-burning fires, and the deeper meanings fire carried – community, wisdom, and listening.

D) Activity Options

Option 1: Fire and Cooking Reflection (No Flame Required)

You'll need:

- A safe area to build a pretend “fire circle” (rocks, sticks, or even a drawing)
- Paper and pencils

Instructions:

1. Sit in your “fire circle” and take turns imagining what it would be like to cook food or share stories by a real fire.
 2. Each person can:
 - Draw what they think a bush cooking fire would look like
 - Share a memory, lesson, or story they would tell by the fire
 - Describe a time they learned something by slowing down
-

Option 2: Traditional Fire & Plant Knowledge

You'll need:

- Access to a book or adult-guided website about traditional Aboriginal plant use

Instructions:

1. Choose one native plant traditionally prepared using fire (e.g. yam daisy, bush tomato, witchetty grub).
 2. Research how fire helps that plant grow, spread, or be prepared for eating.
 3. Draw a diagram of the process and explain why slow fire is important.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What did Luka do by the fire?
- What are some good things fire can be used for?
- When do you need to be slow or careful?

ii) Middle Primary Students (Ages 8–10):

- Why did Uncle Noel say fire was a teacher?
- What do you think it means to “listen to the fire”?
- What’s something you’ve learned by being slow and attentive?

iii) Upper Primary Students (Ages 11–12):

- How is Aboriginal fire knowledge different from modern ideas about fire?
 - What can we learn from older people (like parents or Elders) that we might miss if we rush?
 - How can slowing down help us become more wise and respectful in everyday life?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“Wisdom is more precious than rubies, and nothing you desire can compare with her.” – Proverbs 3:15

Parent/Tutor Says:

"Just like Luka learned from Uncle Noel, we also need to sit quietly and learn from people who are wise – whether they’re Elders, parents, teachers, or God Himself.

Fire teaches us many things: to be careful, to be patient, and to stay close. In the Bible, wisdom is compared to treasure – because it helps us live well and treat others kindly.

Let’s become people who slow down, listen well, and treat what God has given us with respect – especially the land and those who know how to live closely with it."

Reflection Question:

What’s one piece of wisdom you’ve received – maybe from an older person, from nature, or from God – and how can you live it out this week?

Lesson 22: What Makes a Bird a Bird

Topic: Birds

Ages: 5–12

Character Focus: Attentiveness (Noticing fine details, observing with care, praising God for His intricate designs)

A) Introduction

Parent/Tutor Says:

"Birds are some of the most beautiful, clever, and fascinating creatures in God's creation. They sing, soar, glide, and build – all using unique features that no other animal has in quite the same way.

Today we're going to learn: What makes a bird a bird? We'll look closely at feathers, beaks, bones, eggs, and more. God created birds with special features that help them live in the sky, trees, bush, deserts, and even the sea.

Let's start with a story about a curious girl who learns how to recognise birds – not just by colour, but by design."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Ava's Feather Trail"

Ava loved collecting things – leaves, seed pods, beach shells, shiny rocks... and most of all, feathers.

She kept her feather collection in a special wooden box under her bed. Some were soft and grey like smoke. Others were bright blue or spotted brown. Her favourite was a giant black feather with a deep sheen that shimmered green in the light. Her uncle said it had come from a raven.

But there was one thing Ava didn't understand.

She knew birds had feathers. But so did her old feather pillow and the feather duster under the sink. Even some hats at the op shop had feathers stuck in them. That didn't help her figure out what really made birds special.

One weekend, Ava's family visited a nature discovery centre. On the wall was a sign:

“Junior Birdwatchers Workshop – TODAY at 11am”

“I want to do that!” Ava said, tugging Mum’s hand.

The workshop was held in a big wooden room that smelled of eucalyptus and sunlight. Their guide, Leila, wore binoculars around her neck and had a soft white feather tucked into her wide-brimmed hat.

“So,” Leila asked the group, “what makes a bird a bird?”

Ava’s hand shot up. “Feathers!”

“Great answer,” Leila smiled. “Only birds have feathers. That’s our number one clue. Even penguins and emus – feathers are their trademark. But let’s keep going. What else?”

The children guessed:

“Wings!”

“Eggs!”

“They can fly!”

“Beaks!”

“All good,” Leila nodded. “Birds do lay eggs. They have wings. And they all have beaks – but no teeth. Most can fly, but not all. Think of ostriches and kiwis. But flying isn’t what makes them birds – feathers are.”

She passed around real feathers. Some were stiff and shaped like fans. “These are flight feathers,” Leila explained. “They help birds steer in the air.” Others were soft and fluffy – “for insulation and warmth.” Some had waterproof coatings. Some were tiny contour feathers that helped streamline the bird’s body.

“Feathers aren’t just pretty,” Leila said. “They help birds fly, stay warm, stay dry, and even hide from predators.”

Ava held a feather up to the light. It had tiny barbs and hooks – so small they were almost invisible – but when she ran her fingers over them, they smoothed into place.

“That’s called a vane,” Leila said. “It’s how birds keep their feathers neat and air-ready.”

Next, they looked at beaks.

Leila had a tray of models:

- Long, thin ones like straws for sipping nectar
- Short, thick ones for cracking seeds
- Sharp, hooked ones for tearing meat
- Flat, paddle-shaped ones for scooping bugs from mud
- Spear-like ones for catching fish

“Each beak is perfectly designed,” Leila said. “God made each bird with a built-in tool. Whatever job it has – its beak is ready for it.”

Ava was fascinated. She had never thought about how a spoonbill’s wide beak helped it sweep through the water, or how a honeyeater’s thin beak dipped into flowers like a straw. Every shape had a purpose.

Then they talked about bones.

“Bird bones are hollow,” Leila said, showing them a real bird skeleton under glass. “That makes them light but strong – perfect for flying. It’s a marvel of design. Even their lungs and muscles are made for flight. And yet, birds are strong enough to fly across oceans!”

After lunch, the group went outside with binoculars. They watched magpies hopping on the grass, fairy-wrens flitting through bushes, and a heron standing like a statue near the pond.

Ava spotted a white feather drifting down and caught it gently in her hand.

“Now I can guess which bird this might’ve come from!” she grinned.

That night at home, Ava opened her feather box. But this time, she looked at it differently.

The fluffy white one – maybe insulation. The stiff striped one – probably from a tail or wing. The black one with green shimmer – maybe a raven after all. Each one had a purpose. Each one told a story.

She opened her Bible and read the verse Leila had quoted at the end of the session:

“Look at the birds of the air; they do not sow or reap or store away in barns, and yet your heavenly Father feeds them.” – Matthew 6:26

Ava whispered, “You look after the birds... and me.”

She placed the new feather in her box, folded her hands, and prayed:

“God, thank You for birds. Thank You for feathers and beaks and bones and wings. And thank You for designing each one with care.”

From that day forward, whenever Ava spotted a bird, she didn’t just think “pretty.” She thought: **designed**. She watched their beaks, their wings, their tails. She paid attention to where they lived, how they moved, and what they ate. And slowly, she became not just a collector – but a quiet student of God’s creation.

C) Narration

Parent/Tutor Says:

"Can you tell me the story back in your own words? What did Ava learn about birds? What makes a bird a bird? Why did she see her feather collection differently after the visit?"

D) Activity Options

Option 1: Feather and Beak Observation

You’ll need:

- Real feathers (or images if unavailable)
- Pictures or toy birds with various beak shapes
- Optional: magnifying glass, notebook, coloured pencils

Instructions:

1. Examine the feathers: Which are soft? Which are stiff? What might each be used for?
2. Match different beak shapes to their likely uses (nectar, fish, seeds, insects, etc.).

3. Draw your own imaginary bird. What does it eat? Where does it live? Design a beak and feather type to suit its lifestyle.
-

Option 2: Bird Match Game

You'll need:

- Card pairs (one set with bird features, one with their functions)
 - E.g. "Hooked beak" matches "Tearing meat"
 - "Down feathers" matches "Keeping warm"

Instructions:

1. Lay all cards face down. Take turns flipping two to find a match.
 2. When you find a pair, explain the connection aloud.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What is something only birds have?
- What does a beak help a bird do?
- Why do you think birds are special?

ii) Middle Primary Students (Ages 8–10):

- Why are feathers important for more than just flying?
- How do different beaks suit different birds?
- What can we learn about God by looking at birds?

iii) Upper Primary Students (Ages 11–12):

- What makes birds different from mammals or reptiles?
 - Why does it matter that each bird is designed for its own place and job?
 - How does studying creation help us become more attentive and thankful?
-

F) Biblical Connection & Wrap-up

Bible Verse:

"Look at the birds of the air... your heavenly Father feeds them." – Matthew 6:26

Parent/Tutor Says:

"Jesus said this to remind us that God watches over even the birds – and that He watches over us too. When we look closely at the way birds are designed – with such detail, such beauty – we remember that God is creative, wise, and loving.

Let's practise attentiveness this week by really noticing the birds around us – their feathers, their songs, their movements – and giving thanks to the God who made them all."

Reflection Question:

What's one way you can show more attentiveness this week – whether to God's creation, your learning, or someone around you?

Lesson 23: Birdsong and Communication

Topic: Birds

Ages: 5–12

Character Focus: Attentiveness (Listening with care, using our words wisely, understanding the power of sound)

A) Introduction

Parent/Tutor Says:

"Have you ever woken up to the sound of birds singing outside your window? Some birds chirp, some call, some sing long melodies. But have you ever wondered – why do birds sing?"

Birdsong isn't just pretty – it's purposeful. Birds use sounds to communicate: to protect their territory, to call for a mate, to warn of danger, or to keep their family together. Each call has meaning.

Let's listen to a story about a boy named Eli who starts to hear birds in a whole new way."

B) Interactive Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Eli Listens In"

Eli liked facts.

He could list the planets in order, name all the dinosaurs, and explain how volcanoes erupted. He liked ticking off boxes, filling in charts, and doing science experiments with fizz and pop. But Eli wasn't very good at listening. Not really. Especially when it was quiet. Especially when it was people.

He often talked while others were still speaking. He interrupted without meaning to. He rushed ahead, thinking he already knew the answer.

One morning, Eli's mum had an idea.

"Let's try something different today," she said. "No books. No screens. Just ears."

Eli wrinkled his nose. "What do you mean?"

"I mean," she smiled, "today we're going to listen. We're going to do a birdsong study."

Eli raised an eyebrow. "Birds? Like tweeting and chirping?"

"Exactly," Mum said. "But there's more to it than that. Birds use their voices in amazing ways. Come sit outside. Bring a notebook."

They sat on the verandah with their backs to the sun. Mum handed Eli a pencil and said, “Try to write down what you hear.”

Eli stared at the sky. Nothing happened.

Then – chirp! chirp-chirp!

Tweet... chirrrrp!

Caw! Caw!

Twee-wee-wee-wee!

He turned to Mum. “Every bird sounds different.”

“Exactly,” she said. “And they’re not just making noise. They’re saying something.”

That day, Eli sat for ten whole minutes. He noticed that:

- One bird repeated the same little tune over and over from the same branch.
- Another bird let out a series of short, sharp squawks whenever the neighbour’s cat got too close.
- A third bird made soft peeps as it flew back and forth with twigs in its beak.

“Birds are talking?” Eli asked.

“In their own way,” Mum nodded. “Songs can mean: ‘This is my space,’ or ‘Come here,’ or ‘Danger nearby.’ They sing to protect their territory, find a mate, gather their family, or share food.”

Eli started listening every day. He began recognising patterns. He nicknamed the birds:

- *Mr Song* (the one who sang the same tune every morning)
- *Ms Alarm* (who shrieked at danger)
- *Papa Flap* (who called gently to his chicks)

Soon Eli could tell when rain was coming – because the birds went quiet. He could tell when a hawk flew overhead – because they gave out high-pitched warning calls. He even heard birds scolding one another over a crumb!

He drew little sound maps in his notebook. Circles for high notes. Squiggles for trills. Lines for low calls. He wrote questions in the margins:

- Why do some birds call at dawn?
- How do they recognise their chicks?
- Do birds have “accents” in different places?

Mum smiled. “Now you’re not just hearing – you’re listening.”

One afternoon, Eli found a honeyeater nest in the tree near the fence. Every time the mother bird flew close, she gave a soft call, and the chicks chirped in response. Eli watched quietly, amazed at how gentle she was. How precise.

That night, he opened his Bible and read with Mum:

“The tongue has the power of life and death.” – Proverbs 18:21

Eli sat back. “Words are powerful,” he said slowly.

Mum nodded. “Whether you’re a bird or a person, sound has meaning. Birds use their calls with care. People should too.”

Eli thought about how many times he’d interrupted or spoken too quickly. He thought about the birds – how they waited, responded, warned, welcomed. How even silence had a message.

From that day forward, Eli made two goals:

1. To become a better listener – not just to birds, but to people.
2. To speak like the birds – with purpose and care.

And every morning, while the birds sang in the trees, Eli listened in.

C) Narration

Parent/Tutor Says:

"Tell me the story back in your own words. What did Eli learn about birdsong? What surprised him? What did he discover about his own listening?"

D) Activity Options

Option 1: Birdsong Listening Walk

You’ll need:

- A quiet outdoor spot (garden, balcony, park)
- Notebook and pencil

Instructions:

1. Sit quietly and listen for 5–10 minutes.
 2. Each time you hear a new bird sound, jot it down or draw a symbol for it (e.g. “chirp chirp,” “caw-caw,” “tweet-tweet-tweet”).
 3. If possible, watch which bird makes each sound.
Optional: Use a bird app (with help) to match sounds to species.
-

Option 2: Make Your Own “Call Code”

You’ll need:

- A partner (parent, sibling, friend)
- Optional: whistle, tapping object, or noisemaker

Instructions:

1. Create 3–4 bird-style “calls” for different messages (e.g. “Come here,” “Food,” “Danger,” “Stay away”).
 2. Practise giving and recognising the calls.
 3. Reflect: What made the sounds clear or confusing?
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What did the birds sound like in the story?
- Why do birds sing or call?
- When do you need to listen carefully?

ii) Middle Primary Students (Ages 8–10):

- What surprised Eli about the birds?
- Why is it important to listen – not just to birds, but to people too?
- How can you use your voice to be kind or helpful?

iii) Upper Primary Students (Ages 11–12):

- Why do birds have different calls for different purposes?
 - How is listening to birds like learning a new language?
 - What does the Bible mean when it says the tongue has the “power of life and death”?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“The tongue has the power of life and death.” – Proverbs 18:21

Parent/Tutor Says:

"Birds use their voices with purpose – each chirp or call has a reason. God gave us voices too – and He wants us to use them well.

Being attentive listeners helps us understand others. And when we speak with care, kindness, and truth, we reflect God’s wisdom and love.

This week, let’s listen more carefully – to nature, to people, and to God – and use our words to build up, not tear down."

Reflection Question:

What’s one way you can use your voice kindly or wisely this week? And what’s one way you can practise listening more attentively?

Lesson 24: Nests, Eggs, and New Life

Topic: Birds

Ages: 5–12

Character Focus: Attentiveness (Caring carefully, noticing growth, and valuing life)

A) Introduction

Parent/Tutor Says:

"Today's lesson is about one of the most beautiful things in nature – new life. Birds lay eggs, build nests, and care for their chicks with incredible attentiveness.

Some birds use twigs, others use feathers, spider webs, mud, grass – even bits of plastic. Some nests are deep in tree hollows, others on cliffs or the ground. And inside each egg is a tiny miracle of life, designed by God.

Let's begin with a story about a nest-watcher named Ruby – and what she learns about patience, hope, and the gift of life."

B) Science Story

Parent/Tutor Says:

"I'm going to read you a story about the science topic. Now, please listen very carefully and think about the story as I'm reading it, because I'm only going to read it once. After the story, I want you to tell me everything you can remember. Ok?"

Story: "Ruby and the Waiting Tree"

Ruby had never seen a baby bird hatch.

She'd seen birds flying overhead, picking crumbs from the playground, even building nests in the eaves of her neighbour's house. But she had never seen the very beginning – how a tiny egg becomes a bird.

That changed one spring morning.

Ruby was eating her lunch under the plum tree near the school garden when something caught her eye – a small flash of movement up in the branches. She tilted her head and squinted.

It looked like a lump of bark. But... it moved. A tiny beak poked out. Then a flick of colour.

Ruby held her breath. It was a bird. A very small bird, sitting very still.

After school, she asked the science teacher what it might be. "Could be a spotted pardalote," Miss Jennings said. "They're very quiet nesters."

From that day on, Ruby watched the tree every lunchtime.

At first, the mother bird hardly moved. She was so still that Ruby started calling her the "Statue Bird." But one windy day, the bird flew away briefly – and Ruby saw it.

Inside the little bowl-shaped nest, hidden in the crook of the tree, were three tiny, speckled eggs.

Ruby gasped.

“There’s life in there.”

She ran to get her sketchpad. From that day on, she became the nest’s watcher. Every day, she drew what she saw. The shape of the nest. The leaves above it. The size and colour of the eggs.

She kept her distance, stayed quiet, and made careful notes:

- **Day 1:** Three eggs. All the same size. Mum bird back within two minutes.
- **Day 3:** Warm today. Mum bird leaves more often.
- **Day 5:** No change in eggs... still waiting.

Her friend Max teased her.

“Still staring at the tree, Bird Brain?”

Ruby didn’t mind. She smiled. “I don’t want to miss it.”

And then one day, it happened.

She was watching quietly when the mother bird flew off. Ruby looked closely. One of the eggs had a crack. She almost shouted – but stopped herself.

She sat still for ages.

Crack... crack... wiggle...

By the end of lunch, a damp, greyish chick lay curled inside the nest. It was tiny – barely more than a wobbling beak and fuzz.

The next day, the others hatched.

Ruby watched the mother bird bring insects and tiny grubs to the nest. The chicks lifted their heads and opened their mouths wide. Ruby could barely hear them – but they chirped, just enough to say “feed me!”

Every day they grew louder, fluffier, and more alert.

Max shook his head. “Still with the birds?”

Ruby nodded. “They’re new. They matter.”

One afternoon, she stayed after school just a little longer. One of the chicks had made its way to the edge of the nest. It rocked forward – then back – then forward again.

Ruby whispered, “You can do it...”

Flap. Flap. Flutter!

It flew – just a little – down to the lower branch. Not far. But it flew.

That night, Ruby sat with her Bible and opened to the verse her teacher had shared in assembly:

“You created my inmost being; you knit me together in my mother’s womb... I praise you because I am fearfully and wonderfully made.” – Psalm 139:13–14

She looked at her drawing of the chick. Its tiny bones, its growing wings, its wide, hungry mouth.

“So small,” she whispered. “And yet... a miracle.”

She wrote in her journal: *“I saw a miracle today. It had wings.”*

Ruby kept her journal even after the chicks had flown. Every time she saw a nest, she watched carefully. Every time she heard a quiet chirp, she paused. She had learned something that spring: Life takes time. Life is delicate. And when you’re attentive, you get to see the wonder that others miss.

C) Narration

Parent/Tutor Says:

"Can you tell the story in your own words? What did Ruby notice each day? What did she learn by being patient and watching the nest? Why did she call it a miracle?"

D) Activity Options

Option 1: Build a Model Nest

You’ll need:

- Natural or recycled materials: twigs, leaves, grass, wool, string, feathers, bark
- Small container or paper bowl (optional base)
- Cotton balls or paper eggs

Instructions:

1. Collect natural-looking items respectfully.
 2. Shape a small “nest” inside the container or on its own.
 3. Add pretend eggs and imagine how the parent bird would protect them.
-

Option 2: Egg Observation & Design

You’ll need:

- Pictures of real bird eggs (books or printed images)
- Paper, pencils, coloured markers

Instructions:

1. Study different eggs – note colour, shape, and size.
 2. Invent your own bird species.
 3. Draw its egg and describe where it nests, how it protects its chicks, and what materials it might use.
-

E) Reflective Thinking

i) Youngest Students (Ages 5–7):

- What was inside the nest Ruby watched?
- What do baby birds need to grow strong?
- Why do you think God made birds to care for their babies?

ii) Middle Primary Students (Ages 8–10):

- Why did Ruby watch the tree every day?
- What's something in life that takes time and care to grow?
- How does this story help you understand God's care for you?

iii) Upper Primary Students (Ages 11–12):

- What does it mean to be “fearfully and wonderfully made”?
 - Why is witnessing new life so special?
 - How can you practise attentiveness when you see something fragile or growing?
-

F) Biblical Connection & Wrap-up

Bible Verse:

“You knit me together in my mother’s womb... I am fearfully and wonderfully made.” – Psalm 139:13–14

Parent/Tutor Says:

"God is the Creator of all life – birds, animals, and people. Just like a bird carefully builds a nest and watches over its eggs, God watches over us with great attention and care.

When we slow down and pay attention to the small things – like chicks hatching – we begin to see how precious life really is.

Let's remember to care for what's growing – whether it's a bird, a plant, a person, or an idea. Attentiveness helps us treasure life like God does."

Reflection Question:

What's one area of your life – or someone else's – that you can care for gently and attentively this week, like a bird cares for its nest?

TOPIC 9	CULMINATING PROJECT OR ASSESSMENT

Review Activity 1: “Nature Detective Challenge”

Type: Outdoor observation game

Ages: 5–12 (can be done individually or in pairs)

Materials Needed:

- Clipboards or firm backing
- Paper and pencil
- Optional: magnifying glass, binoculars, ruler

Instructions:

Go outside (garden, park, or nature trail) and ask students to complete a **Nature Detective List** like this:

I found something:

- That moves, but I can’t see it moving (e.g. wind-blown leaf, water ripple, ant trail)
- That shows signs of animal life (e.g. feather, track, nest, chewed leaf)
- That shows order or pattern (e.g. spiral, symmetry, rows, rhythms)
- That I didn’t notice until I stopped and looked carefully
- That reminds me of something we learned (e.g. camouflage, sound, tracking, birds)

Bonus reflection: At the end, ask:

“Which item on your list helped you practise being *most attentive*?”

Review Activity 2: “What I Learned” Poster or Mini Book

Type: Creative reflection & presentation

Time: 30–40 minutes

Ages: 5–12 (adaptable for all levels)

Instructions:

Ask students to create a **poster or mini book** that shows:

Title:

“Science & Attentiveness: What I Learned”

Include:

- **One fact** from each topic (8 in total)
- A drawing or diagram to go with at least 3 of the facts
- One Bible verse that stood out (they can copy one used in the lessons)
- A reflection sentence:

“I am learning to be attentive by...”

Display the poster/book or let students present to a parent, sibling, or friend.

Review Activity 3: “Topic Trail” Game (Quiz Relay)

Type: Physical game + Q&A

Ages: 5–12 (play individually or in teams)

Set-up:

Create 8 “stations” (or spots marked with cones/pillows around the house or garden). Each one represents a **science topic**:

1. Nature Observation
2. Science Experiments
3. Testing Hypothesis
4. Ears, Sound, Music
5. Eyes, Seeing
6. Predator & Prey
7. Tracking & Bush Science
8. Birds

At each station, place **1–2 simple questions** or tasks.

Examples:

Station 1: Nature Observation

Name something you can observe in nature using your eyes but not your hands.

Why does being still help us see more?

Station 4: Ears, Sound, Music

Can sound travel through string? How?

What’s one way to listen more carefully at home?

Station 8: Birds

What makes a bird different from a mammal?

What can we learn from the way birds build nests or care for their young?

Students move from one station to the next. For each correct answer, they earn a small reward (sticker, bead, or “leaf token”) and advance.

Reflection Question at the end:

“Which topic made you feel most curious? Which topic helped you grow in attentiveness?”

QUESTION CARDS INSTRUCTIONS:

Photocopy this page and cut it up into 8 cards to place at each station.

Topic Trail Review Cards

Use these cards at each station to quiz students on what they remember from each topic.

1. Nature Observation

Name something in nature you can observe using your eyes but not your hands.

Why does being still help us see more?

2. Observation in Science Experiments

What does a good observer do during an experiment?

Why is it important to watch closely instead of rushing?

3. Testing Hypothesis

What is a hypothesis?

What should you do if your hypothesis turns out wrong?

4. Ears, Sound, Music

Can sound travel through string? How?

Why do birds sing different songs or calls?

5. Eyes, Seeing

What helps us see the world around us more clearly?

What's the difference between looking and seeing?

6. Predator & Prey

Name one way animals escape danger.

What does it mean to be watchful like a prey animal?

7. Tracking & Bush Science

What does it mean to 'read the land'?

Name a material Aboriginal people use to make a tool or resource.

8. Birds

What makes a bird different from a mammal?

What can we learn from the way birds care for their young?

9. Learn From Each Other:

Compare your results with another student