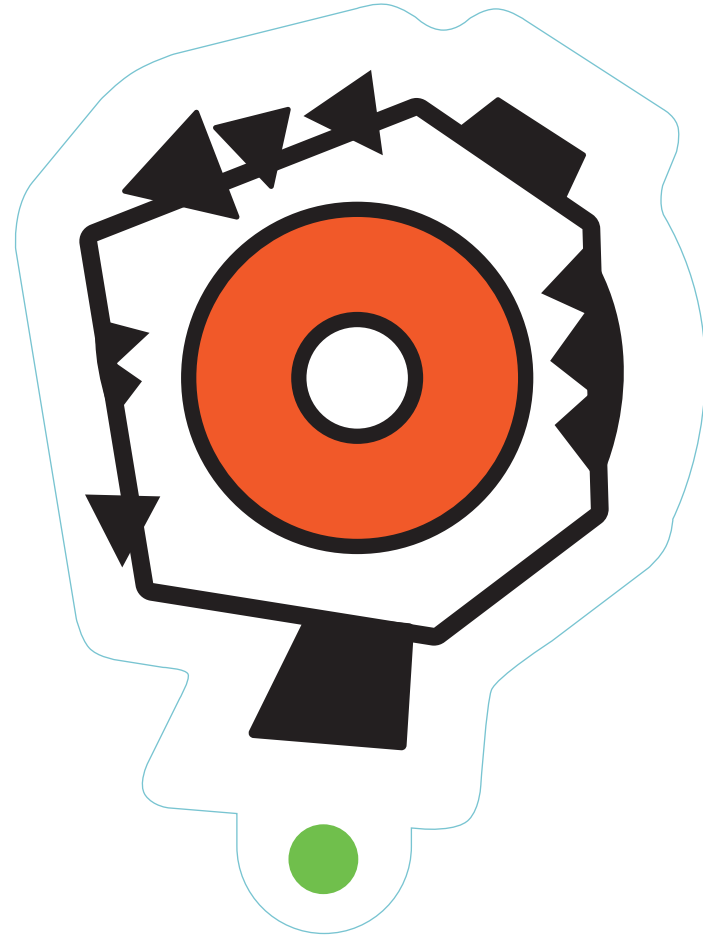
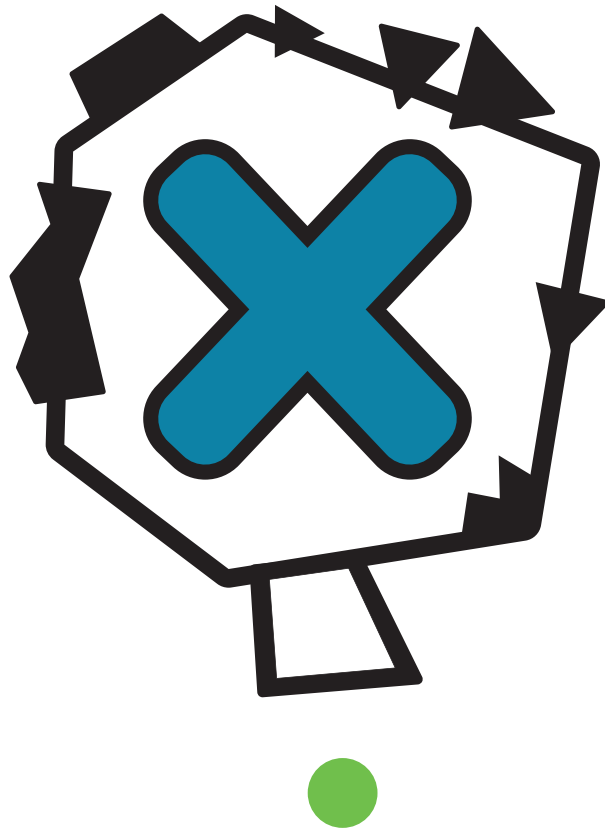


Mendel



Animals and Plants





Animals and
Plants



Gregor Johann Mendel

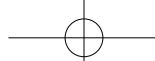
- Mendel was an Austrian monk and biologist who loved to work with plants.
- By breeding the pea plants he was growing in the monastery's garden, he discovered the principles that rule heredity.
- He is called the "father of genetics" for his study of the inheritance of traits in pea plants!



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ARpedia



chameleon



Animals and Plants

pages 14-15

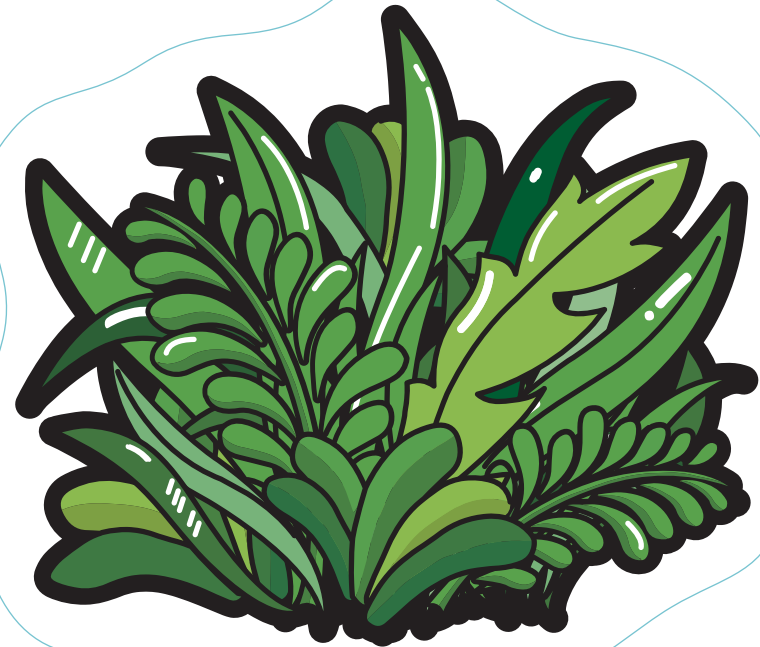
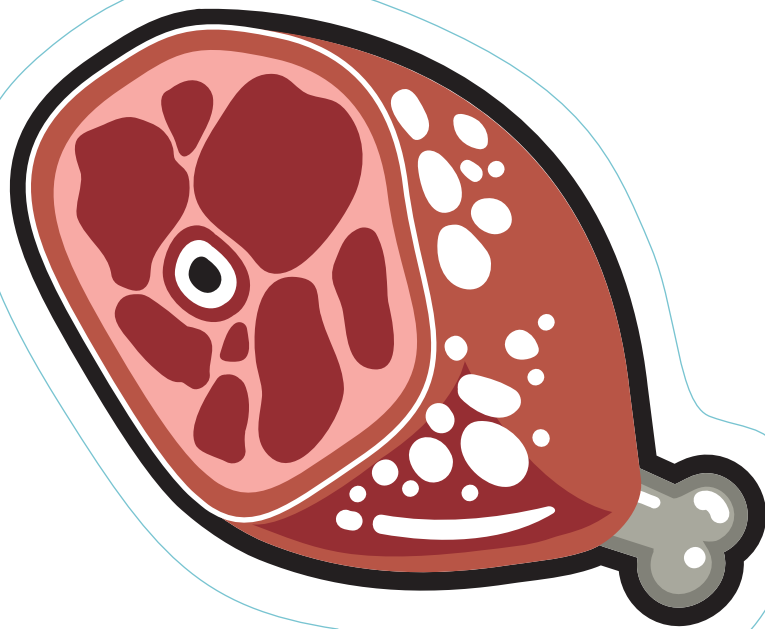
microscope



Animals and Plants

pages 6-7







grass



Animals and Plants

pages 16-17

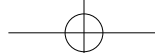
meat



Animals and Plants

pages 16-17





X-ray

 Animals and Plants
pages 18-19

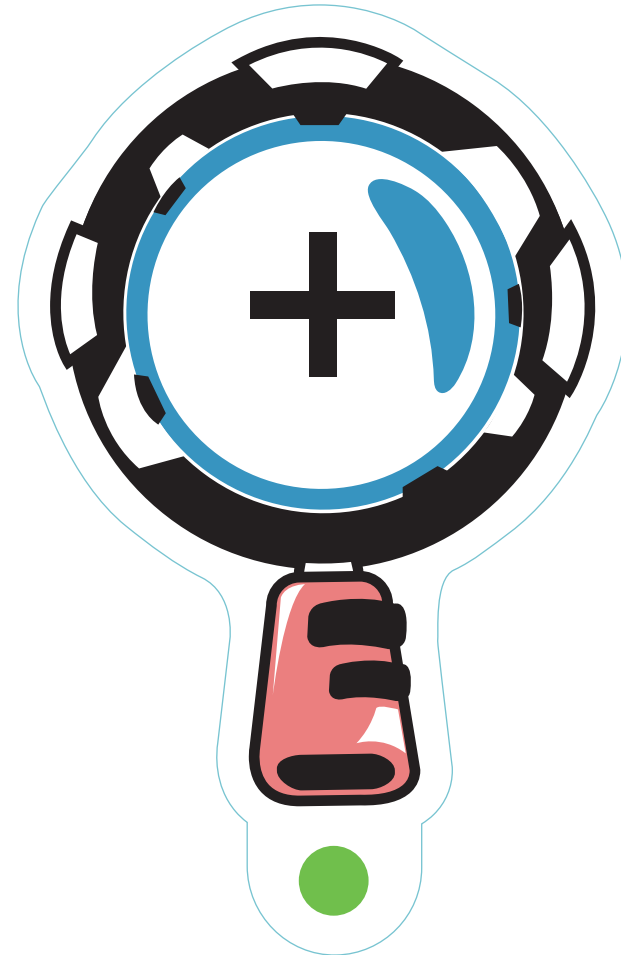


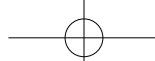
Female

pages 26-27



Animals and Plants





magnifier



Animals and Plants

pages 28-29

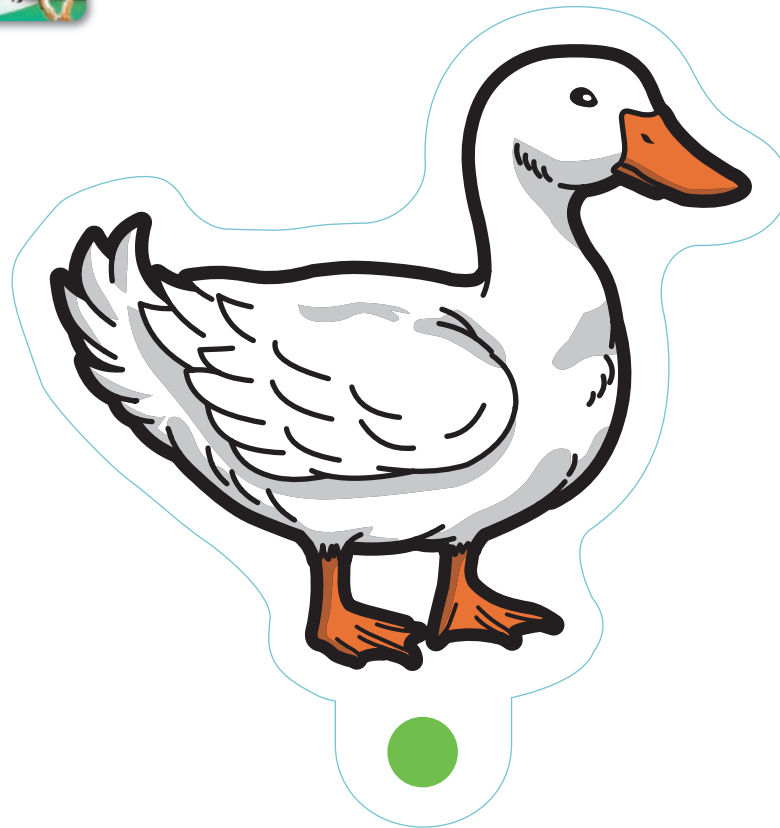
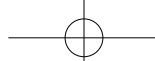


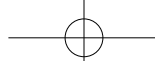
Male

pages 26-27



Animals and Plants





flashlight



Animals and Plants

pages 32-33

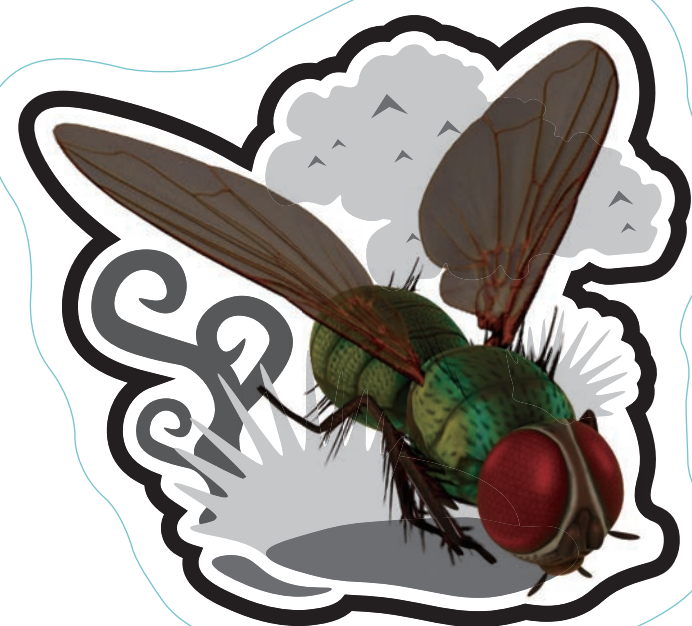
mother duck



Animals and Plants

pages 30-31







fly



Animals and Plants

pages 38-39

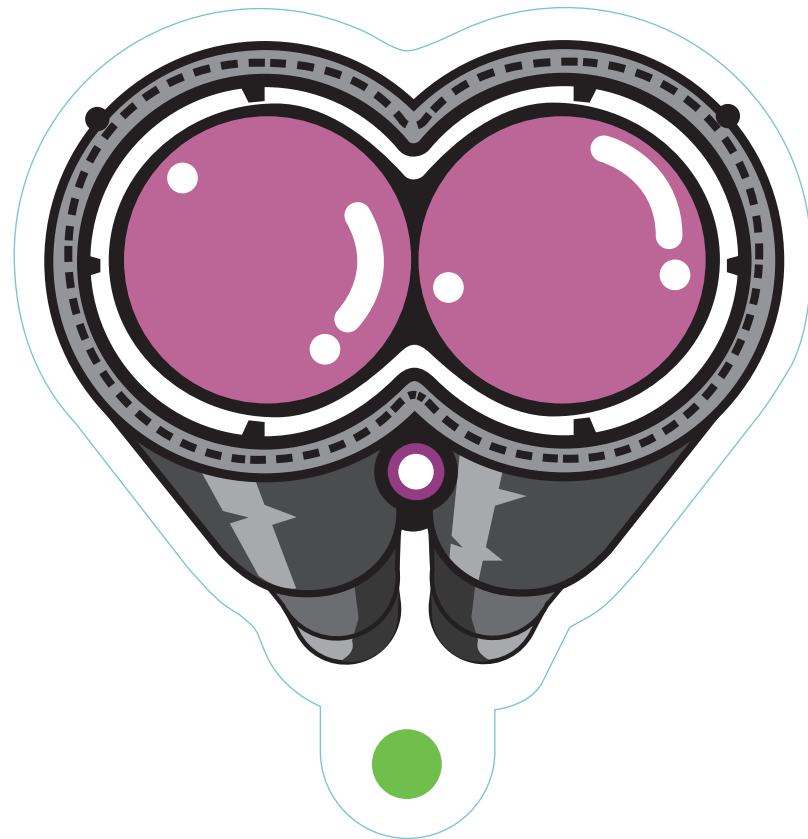
basket

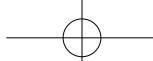


Animals and Plants

pages 36-37







binoculars



Animals and Plants

pages 42-43

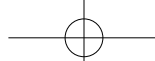
sun



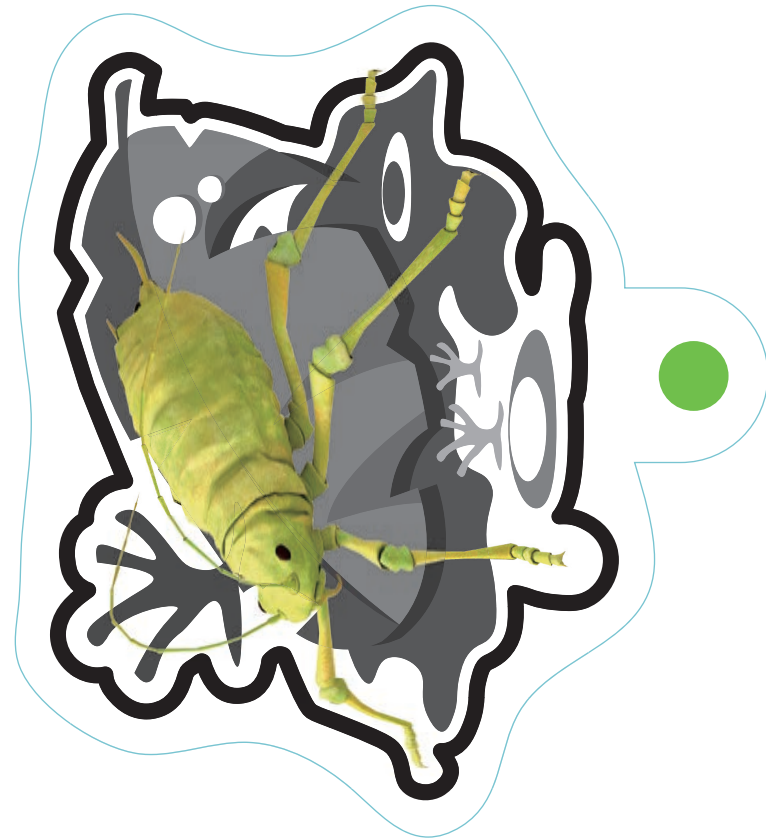
Animals and Plants

pages 40-41





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ARpedia





grass

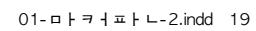


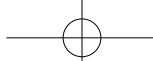
pages 44-45

aphid



pages 44-45





clown fish



Animals and Plants

pages 44-45

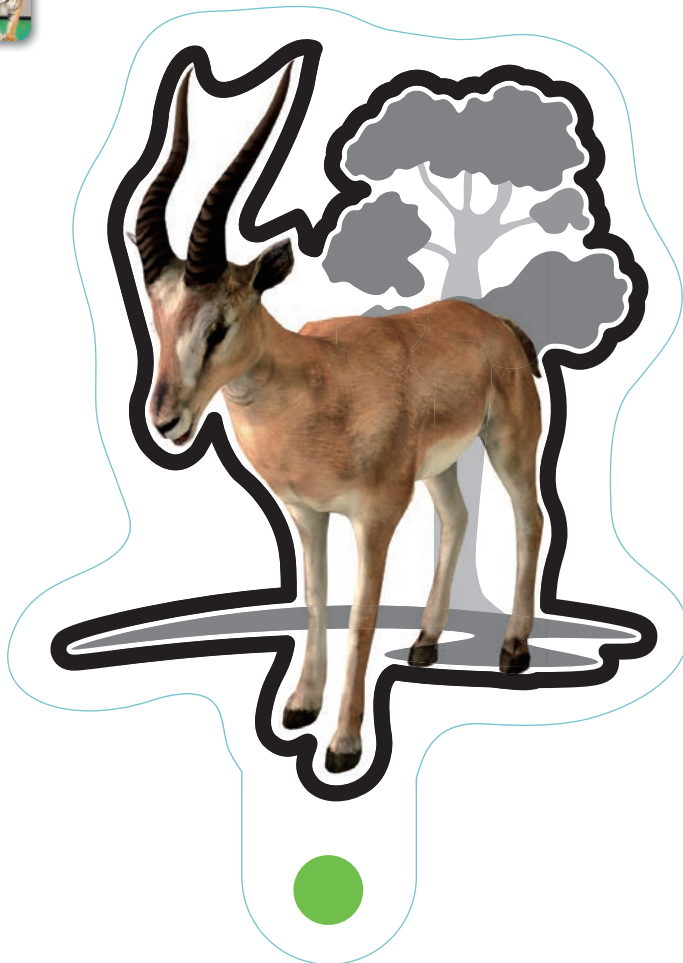
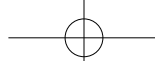
sea anemones



Animals and Plants

pages 44-45







cheetah



Animals and Plants

pages 44-45

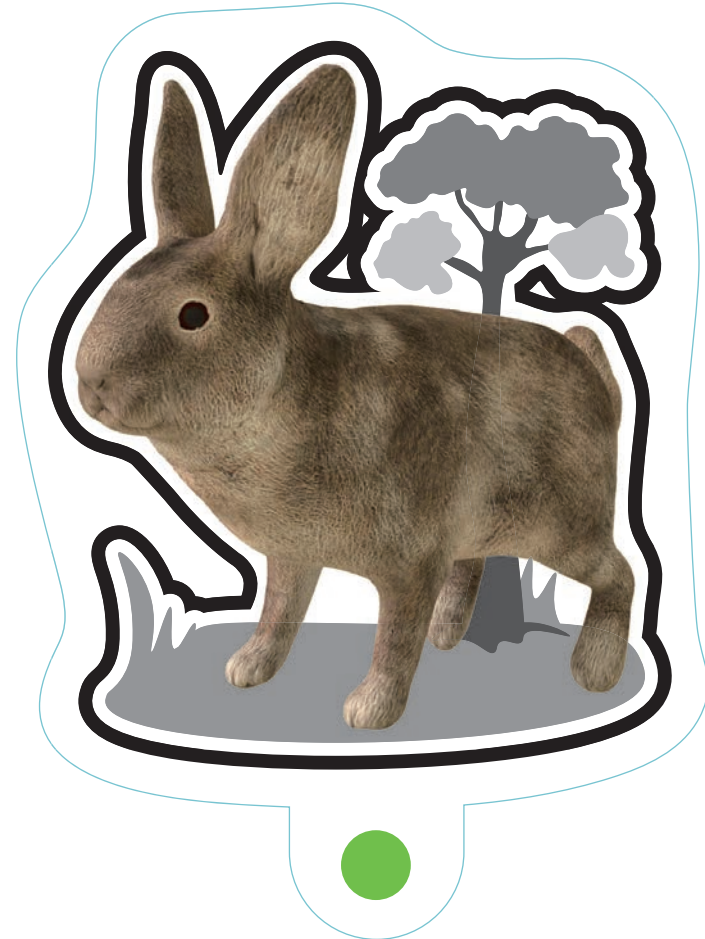
gazelle

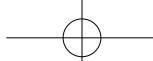


Animals and Plants

pages 44-45







rabbit



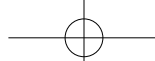
pages 44-45

deer



pages 44-45





pine stem
pages 46-47



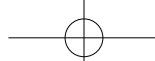
Animals and Plants



onion root
pages 46-47



Animals and Plants



onion root



Animals and Plants

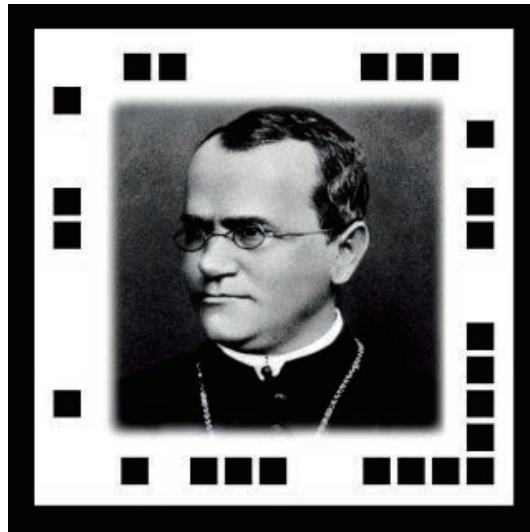
pages 46-47

pine stem



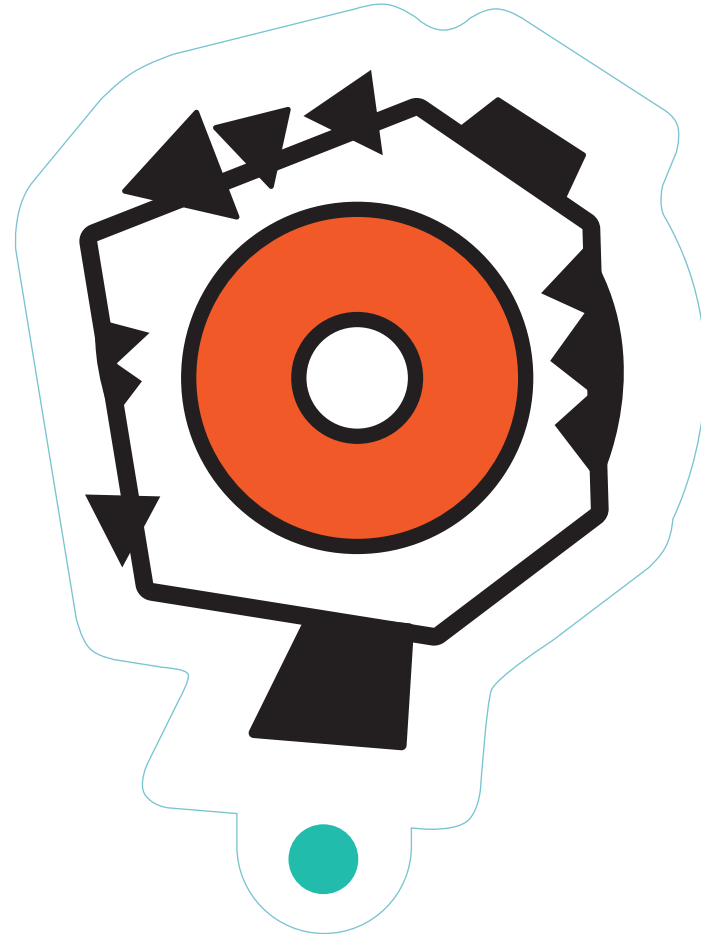
Animals and Plants

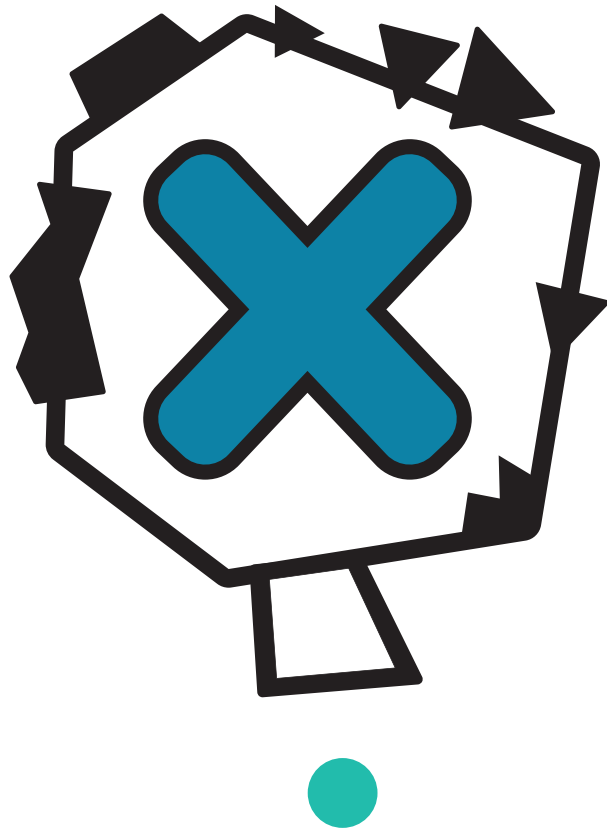
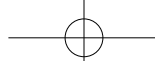
pages 46-47



Mendel

Humans and the Environment



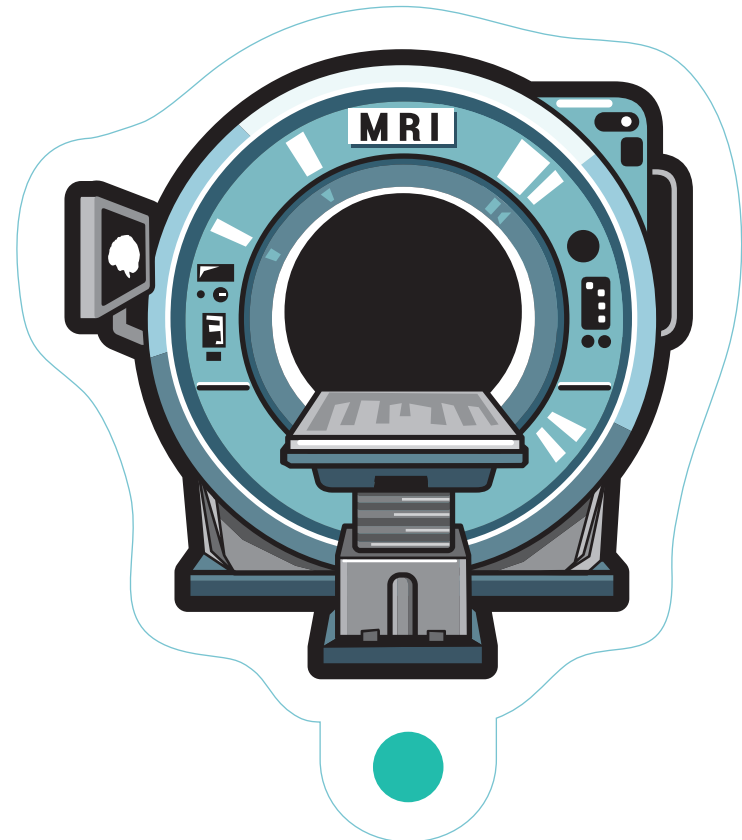


Humans and the
Environment



Gregor Johann Mendel

- Mendel was an Austrian monk and biologist who loved to work with plants.
- By breeding the pea plants he was growing in the monastery's garden, he discovered the principles that rule heredity.
- He is called the "father of genetics" for his study of the inheritance of traits in pea plants!





MRI



Humans and the Environment

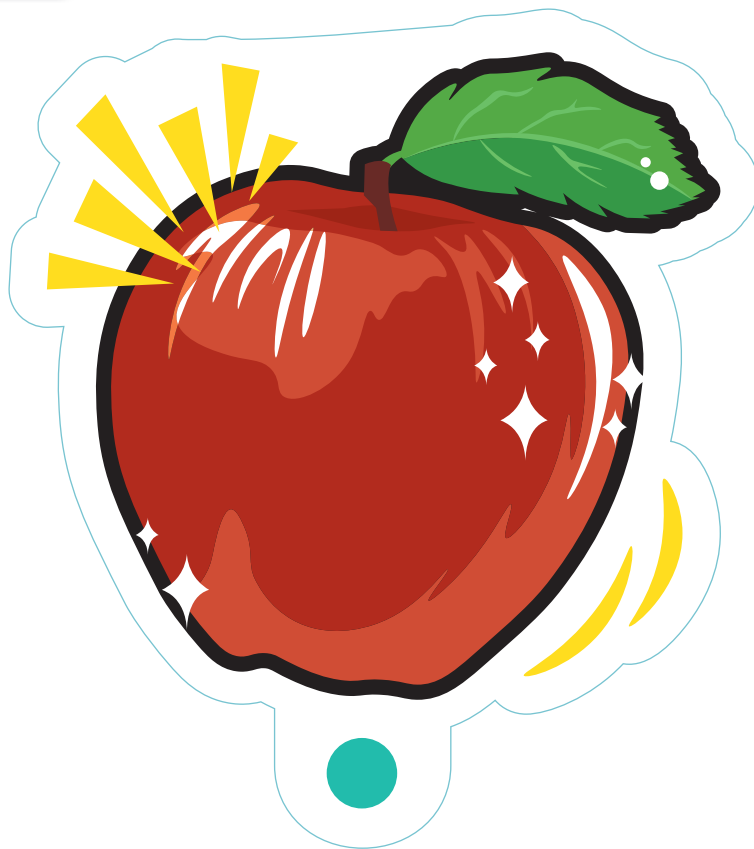
pages 10-11

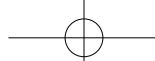
steak



Humans and the Environment

pages 8-9





soccer ball



Humans and the Environment

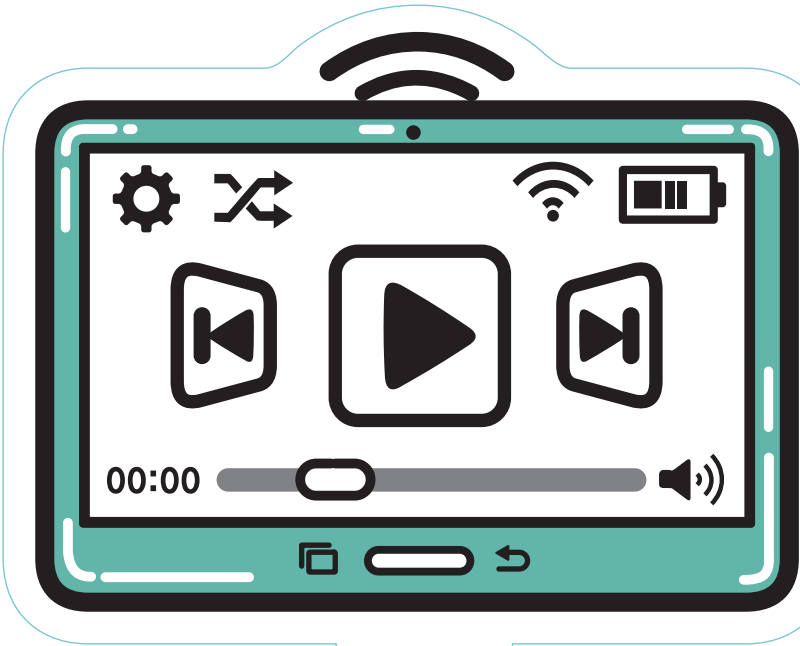
pages 18-19

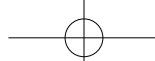
apple



Humans and the Environment

pages 16-17





viewer



Humans and the Environment

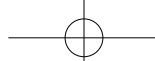
pages 22-23, 26-27, 30-31

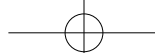
water bottle



Humans and the Environment

pages 20-21





disinfectant



Humans and the Environment

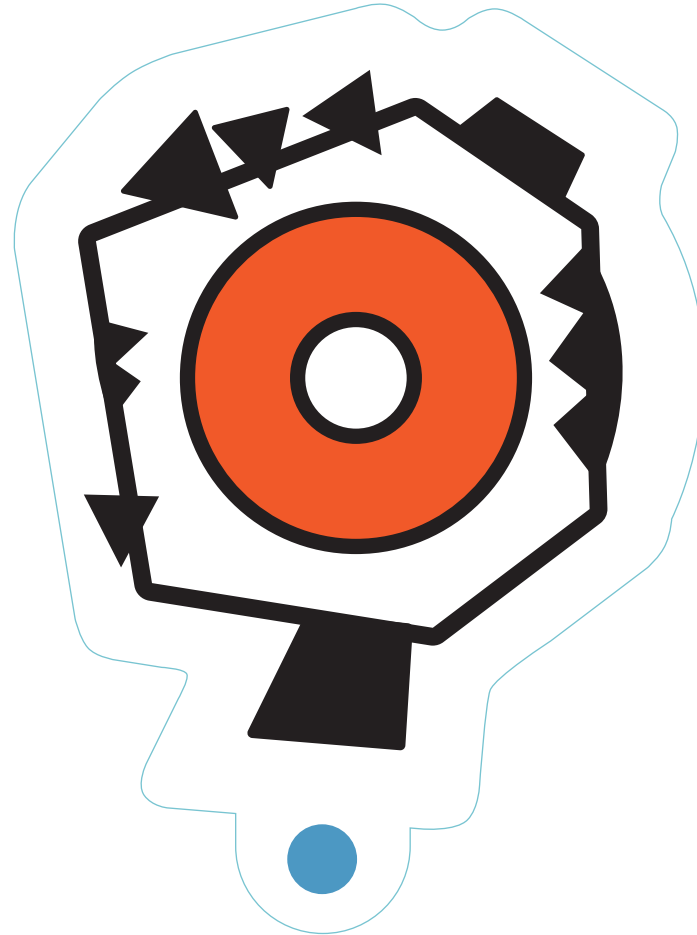
pages 24-25

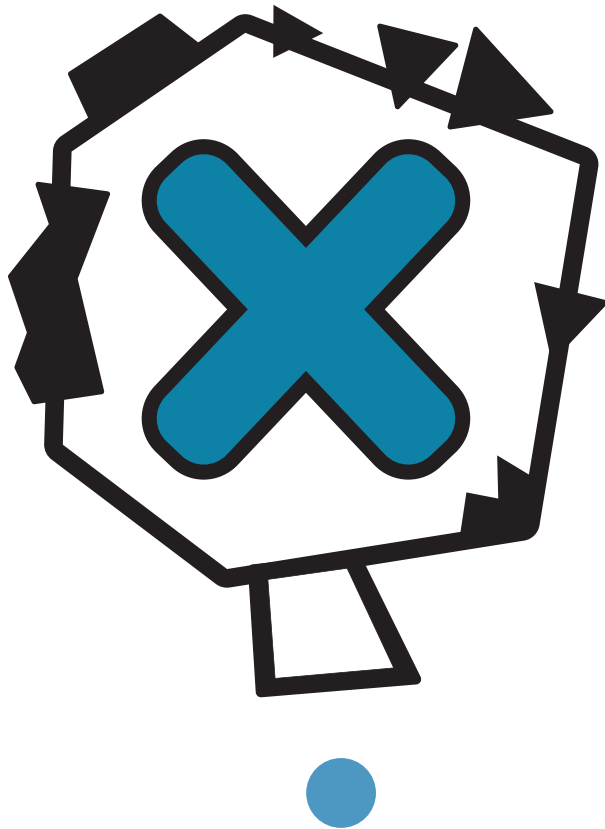




Dalton

Changes in Matter



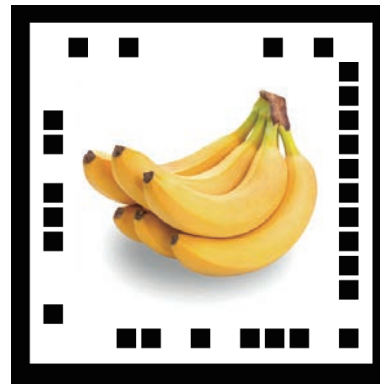


John Dalton

Changes in
Matter



- John Dalton was a British scientist who made many important discoveries in different fields.
- Dalton made the 'Dalton's Atomic Theory' to explain why elements would combine in certain ways.
- One of the main points of Dalton's atomic theory is: Elements are made of extremely small particles called atoms.



banana

pages 6-7



Changes in
Matter



tree

pages 6-7



Changes in
Matter



iron

pages 6-7



Changes in
Matter

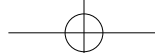


sugar

pages 6-7



Changes in
Matter



tree



Changes in Matter

pages 6-7

banana



Changes in Matter

pages 6-7

sugar



Changes in Matter

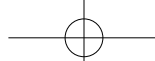
pages 6-7

iron



Changes in Matter

pages 6-7



Sodium

pages 8-9



Potassium

pages 8-9



Strontium

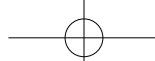
pages 8-9



Calcium

pages 8-9





Changes in
Matter



Potassium

- Element symbol: K
- Atomic number: 19
- Flame reaction: Purple

Changes in
Matter



Sodium

- Element symbol: Na
- Atomic number: 11
- Flame reaction: Yellow

Changes in
Matter



Calcium

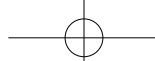
- Element symbol: Ca
- Atomic number: 20
- Flame reaction: Orange

Changes in
Matter



Strontium

- Element symbol: Sr
- Atomic number: 38
- Flame reaction: Red



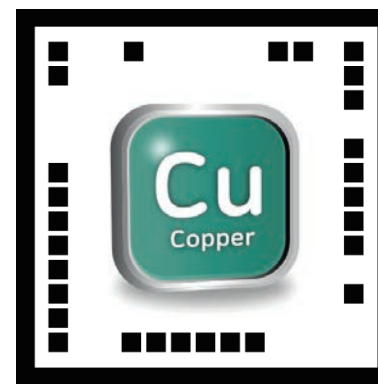
Aluminium

pages 8-9



Lithium

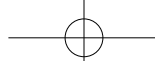
pages 8-9



Copper

pages 8-9





Changes in
Matter



Lithium

- Element symbol: Li
- Atomic number: 3
- Flame reaction: Red

Changes in
Matter



Aluminium

- Element symbol: Al
- Atomic number: 13
- Flame reaction:
Silver-white

Changes in
Matter



Copper

- Element symbol: Cu
- Atomic number: 29
- Flame reaction:
Blue-green



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ARpedia



liquid nitrogen



Changes in Matter

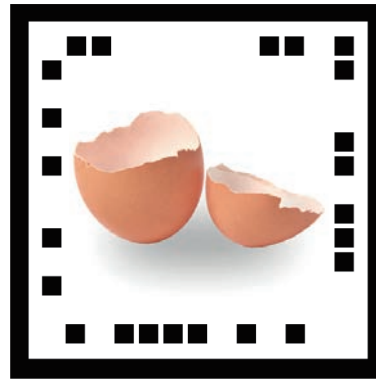
pages 12-13

candle



Changes in Matter

pages 10-11



eggshell

pages 16-17



Changes in
Matter



tofu

pages 16-17



Changes in
Matter



**boiled egg
white**

pages 16-17



Changes in
Matter

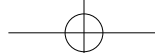


aluminium

pages 16-17



Changes in
Matter



tofu

eggshell



Changes in Matter

pages 16-17



Changes in Matter

pages 16-17

aluminium

boiled egg
white



Changes in Matter

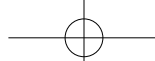
pages 16-17



Changes in Matter

pages 16-17





red cabbage indicator

pages 20-21



Changes in
Matter



rose indicator

pages 20-21



Changes in
Matter

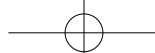


pH paper

pages 20-21



Changes in
Matter



rose indicator



Changes in Matter

pages 20-21

red cabbage indicator



Changes in Matter

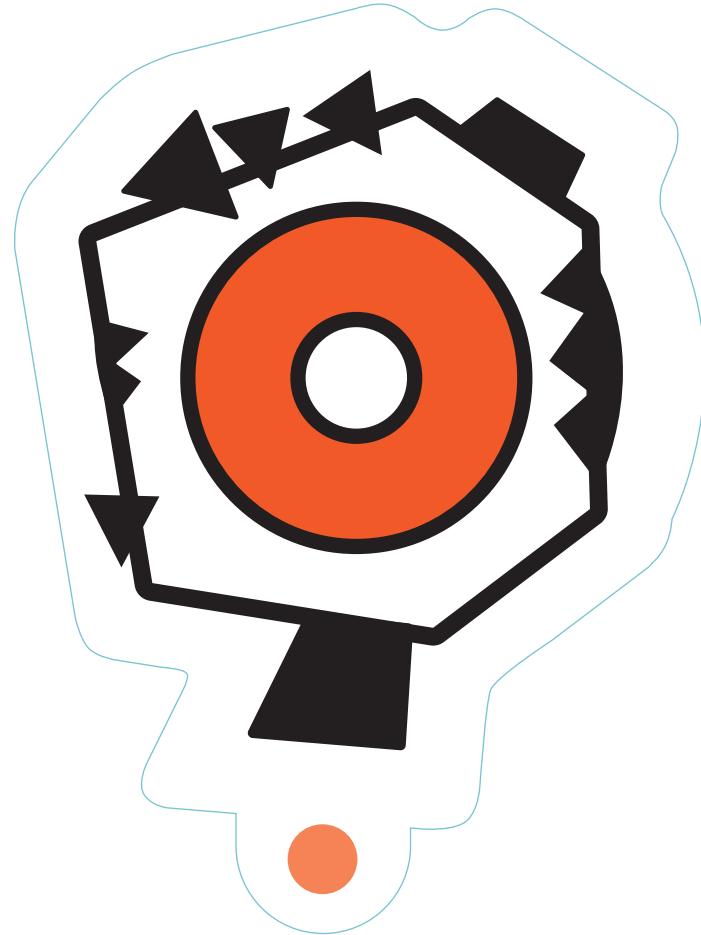
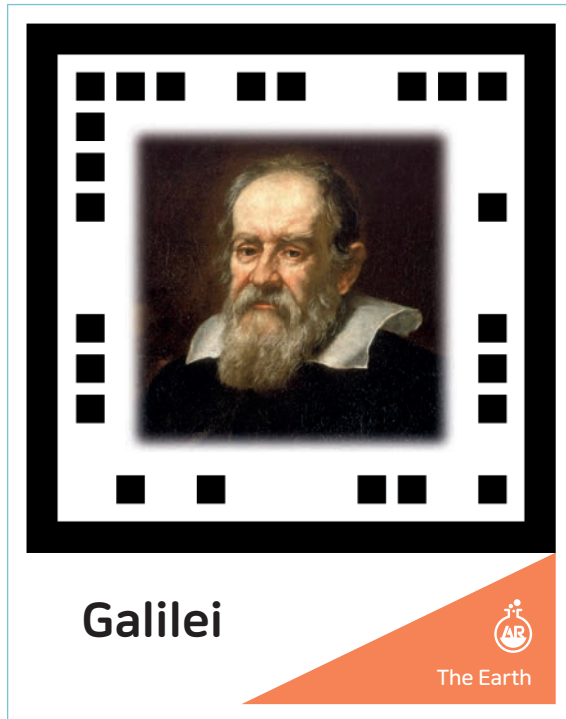
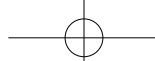
pages 20-21

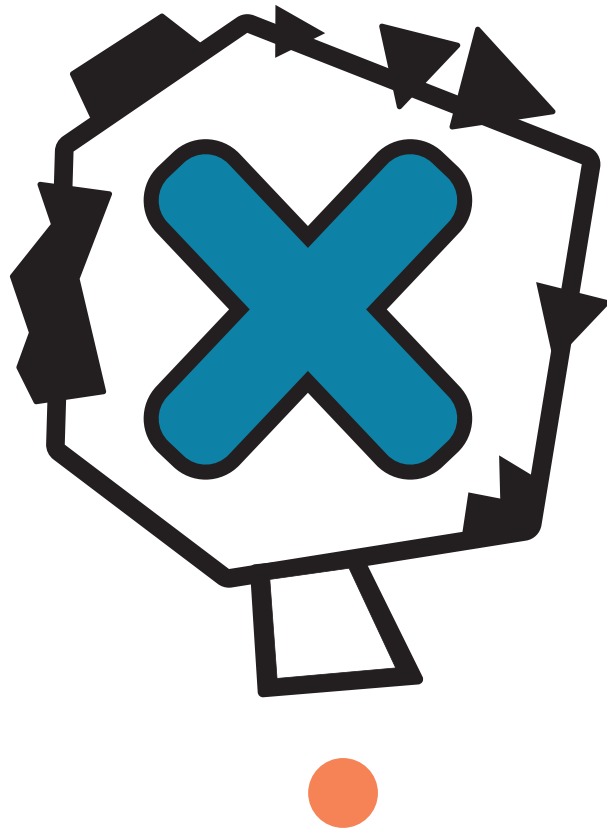
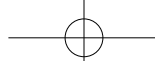
pH paper



Changes in Matter

pages 20-21



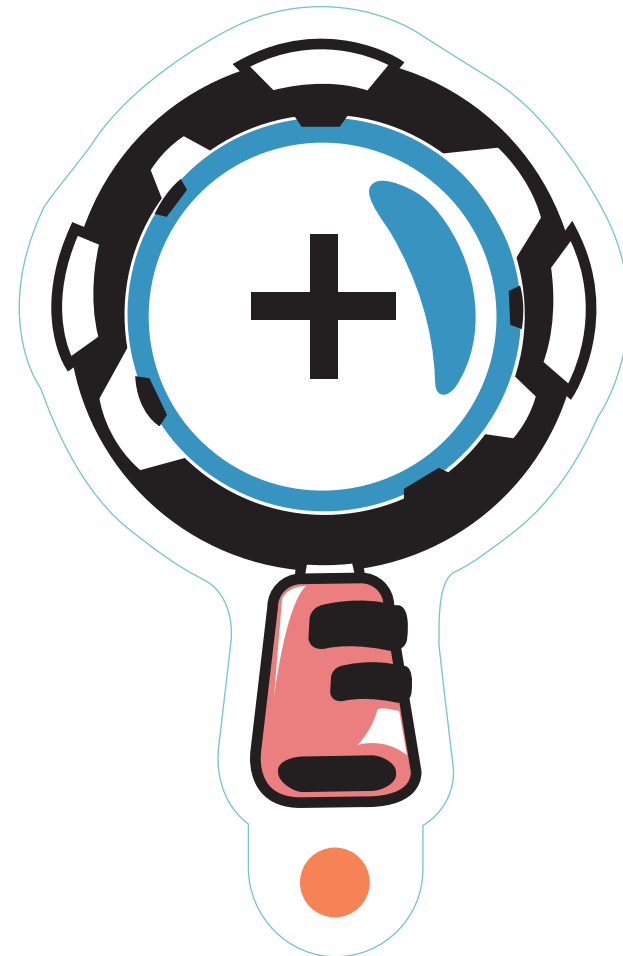


The Earth



Galileo Galilei

- Galileo Galilei is best known for improving the telescope to be used to study the planets and stars.
- Galileo Galilei was the first scientist to prove that the Earth and the planets revolved around the sun.





magnifying glass



pages 20-21, 30-31

seismograph



pages 18-19



sandstone

pages 22-23



The Earth



limestone

pages 22-23



The Earth



basalt

pages 22-23



The Earth



granite

pages 22-23



The Earth



shale

pages 22-23



The Earth



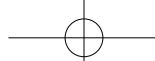
heat

pages 22-23



The Earth





The Earth



basalt

Basalt is a common grey to black extrusive volcanic rock. It is usually fine-grained because of its rapid cooling of lava on the Earth's surface.

The Earth



limestone

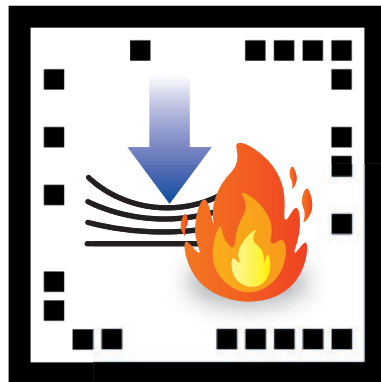
Limestone is made up mostly of a form of calcium carbonate, CaCO_3 . The calcium carbonate is originally produced by living organisms.

The Earth



sandstone

Sandstone is a rock made of compacted sand. These are the most common minerals in the Earth's crust.



**heat and
pressure**

pages 22-23



The Earth

The Earth



shale

Shale is a fine-grained sedimentary rock formed from mud.

The Earth



granite

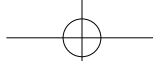
Granite is found on Earth but nowhere else in the Solar System. It is formed from hot, molten magma.



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ARpedia

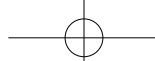


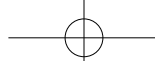
fossil brush

 The Earth
pages 28-29

viewer

 The Earth
pages 32-33





rain and snow



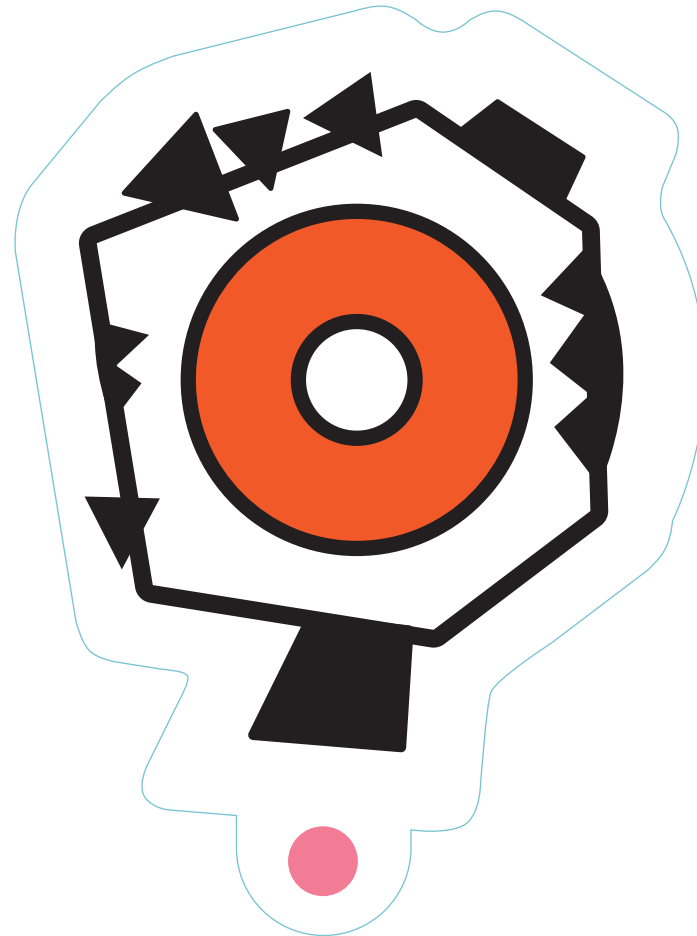
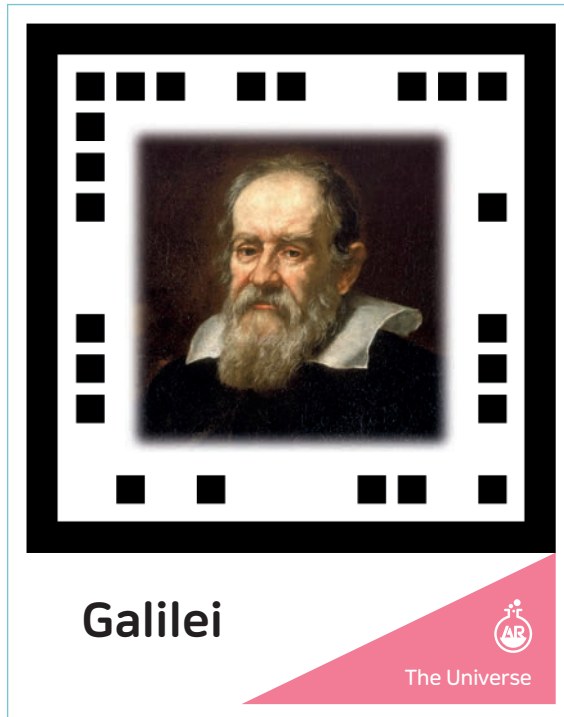
The Earth

pages 38-39



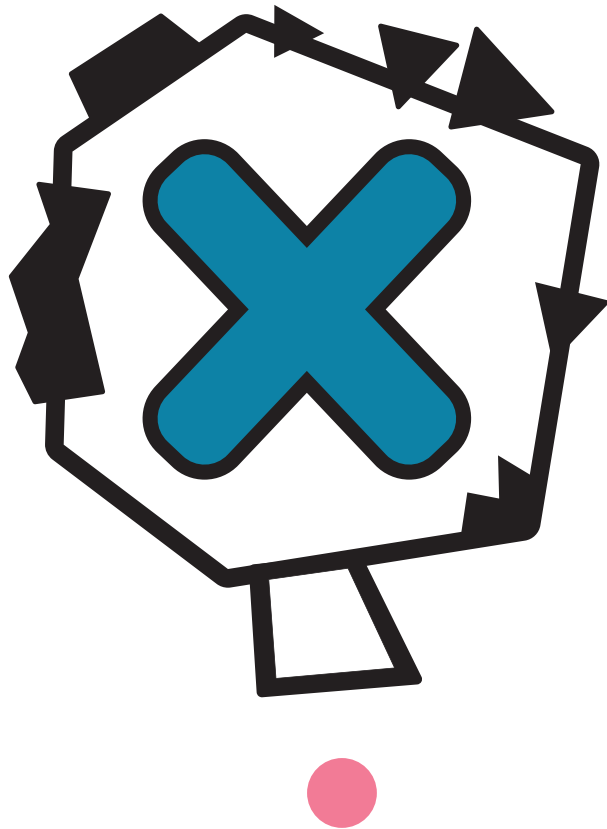


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 **ARpedia**



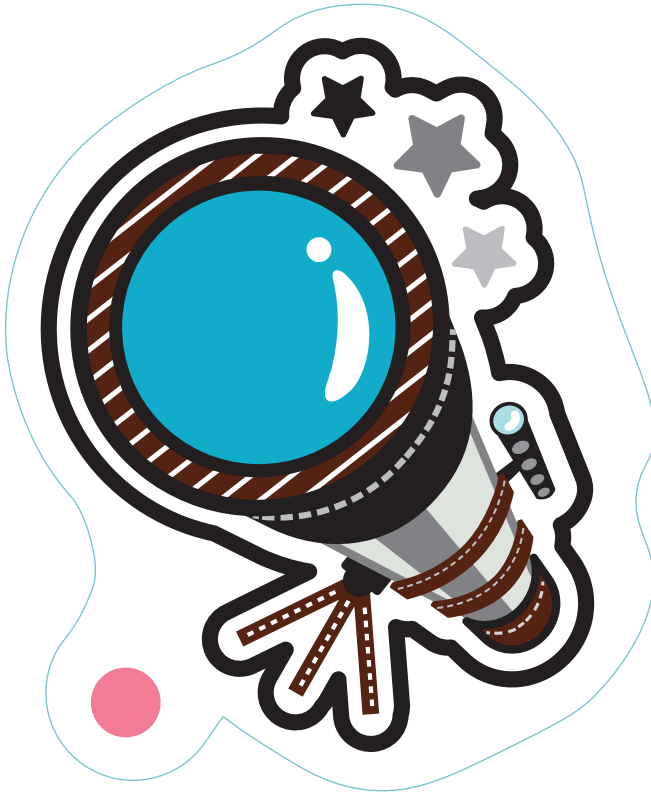


The
Universe



Galileo Galilei

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- Galileo Galilei was the first scientist to prove that the Earth and the planets revolved around the sun.

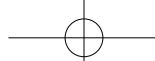


Mercury
pages 10-15



Jupiter
pages 10-15





Jupiter

- Jupiter is the biggest planet in our solar system.
- Jupiter has a Great Red Spot. This oval-shaped object is greater in size than Earth.

The
Universe



Mercury

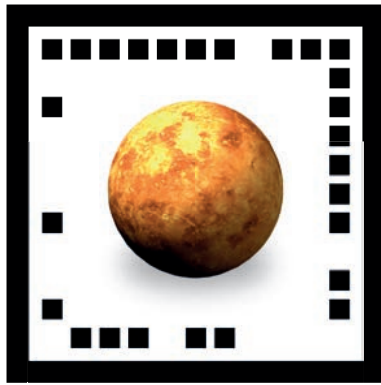
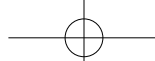
- Mercury is the smallest planet in our solar system.
- Mercury doesn't really have an atmosphere.

The
Universe



astronomical
telescope

The Universe
pages 8-9

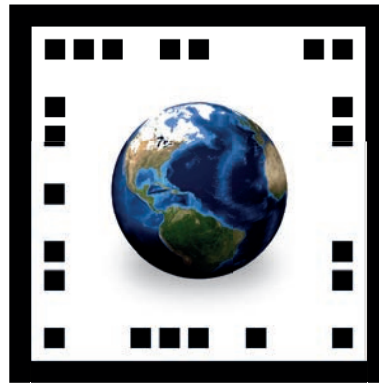


Venus

pages 10-15



The Universe

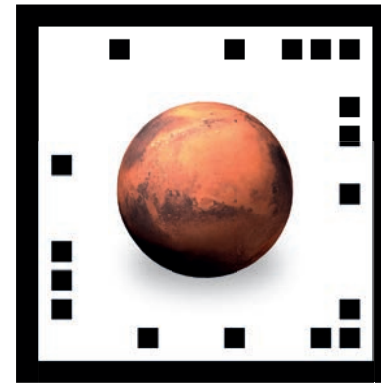


Earth

pages 10-15



The Universe

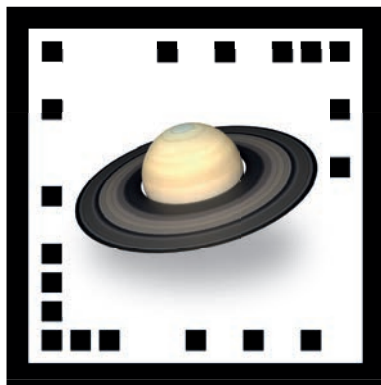


Mars

pages 10-15



The Universe

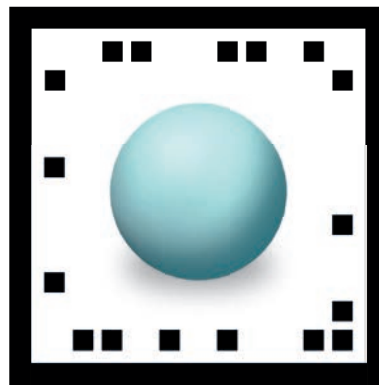


Saturn

pages 10-15



The Universe

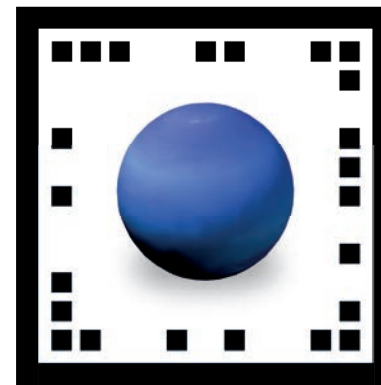


Uranus

pages 10-15



The Universe

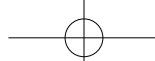


Neptune

pages 10-15



The Universe



The
Universe


Mars

- Mars is half the size of Earth
- Like Earth, Mars has seasons, polar ice caps, volcanoes, canyons, and weather.

The
Universe


Earth

- Earth is the only planet in our solar system we know of that supports life.
- Earth is a terrestrial planet. It is small and rocky.

The
Universe


Venus

- Venus is the hottest planet in our solar system.
- Venus spins in the opposite direction of Earth and most other planets.

The
Universe


Neptune

- Neptune is dark, cold, and very windy, encircled by six rings.
- Neptune is more than 30 times as far from the sun as Earth is.

The
Universe

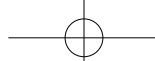

Uranus

- Uranus is made of water, methane, and ammonia fluids above a small rocky center.
- Uranus is surrounded by a set of 13 rings.

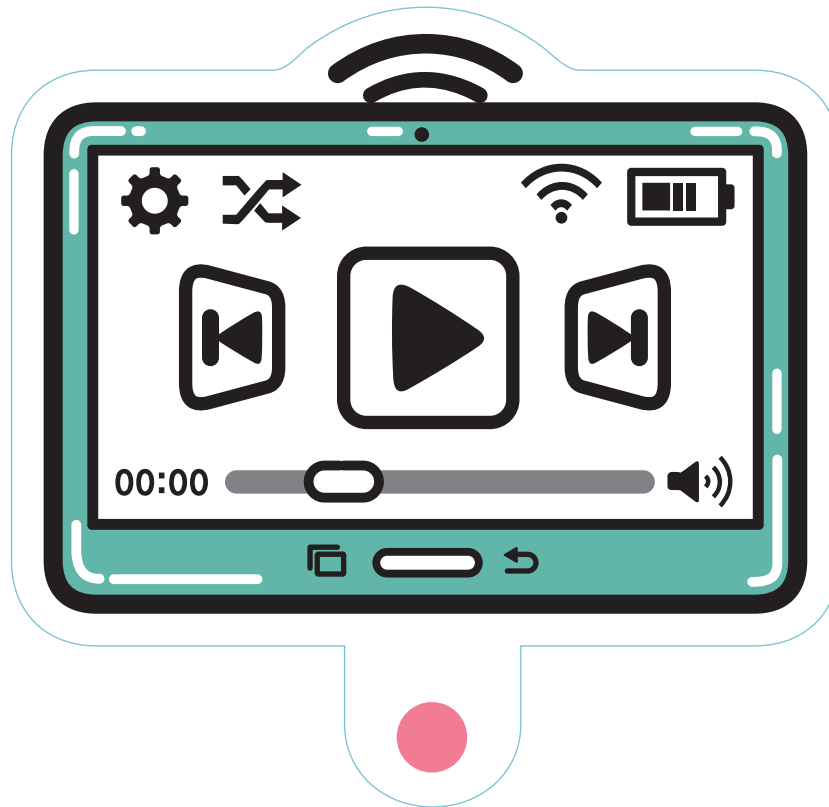
The
Universe


Saturn

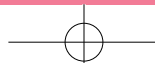
- Saturn is nicknamed the "Ringed Planet" – it has more than 30 ring systems around it.
- The rings of Saturn are made out of chunks of ice and rock.

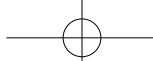


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ARpedia



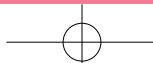


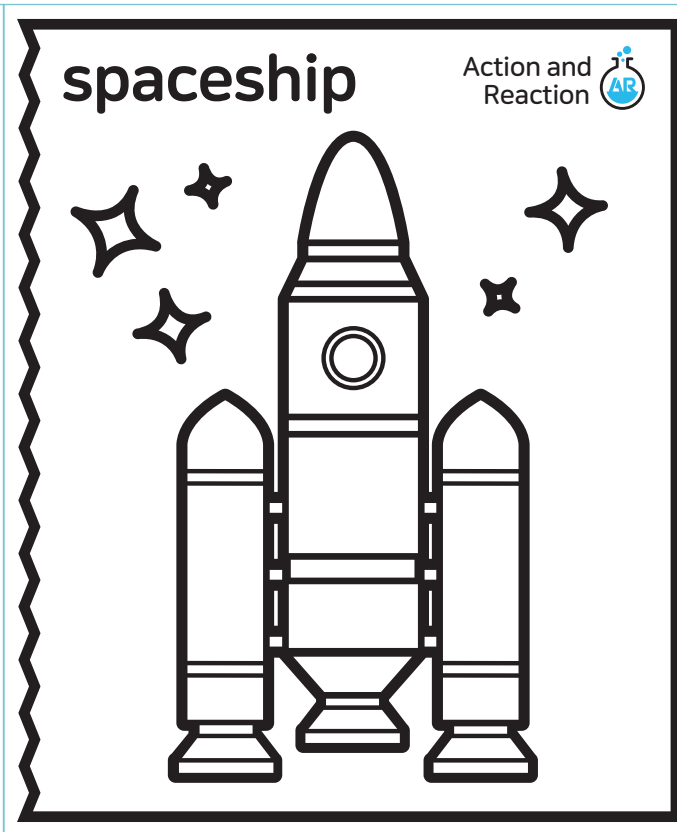
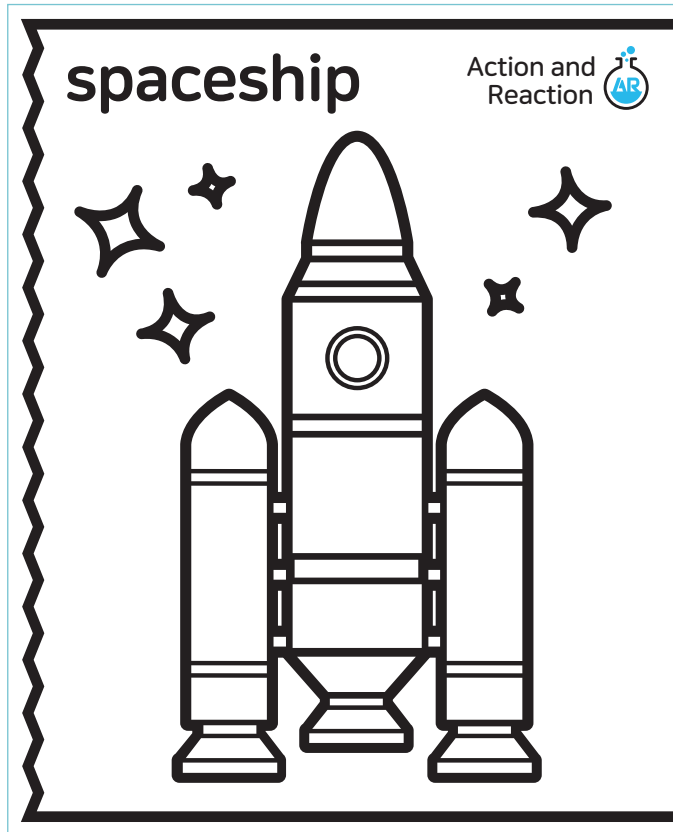
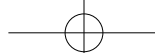
black hole

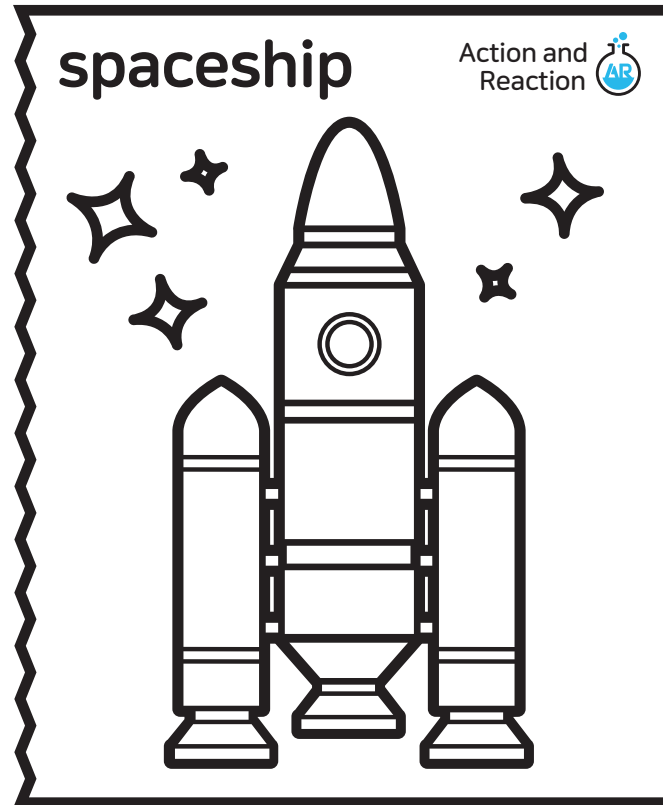
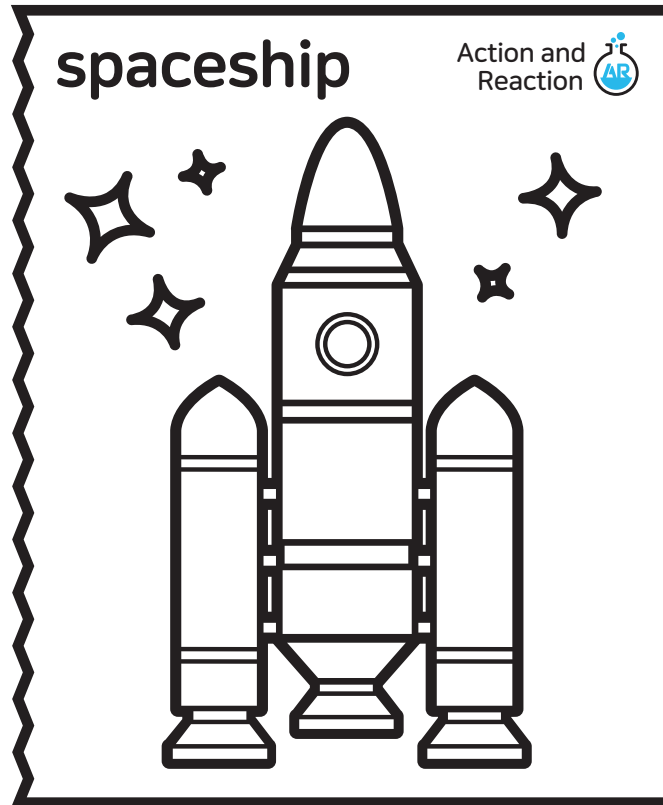
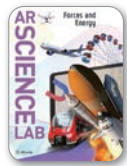
 The Universe
pages 38-39

viewer

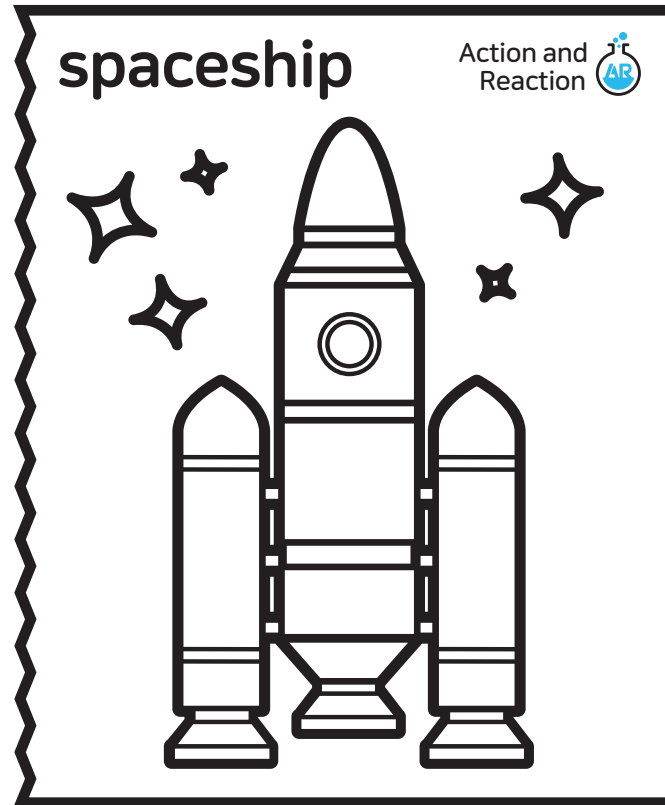
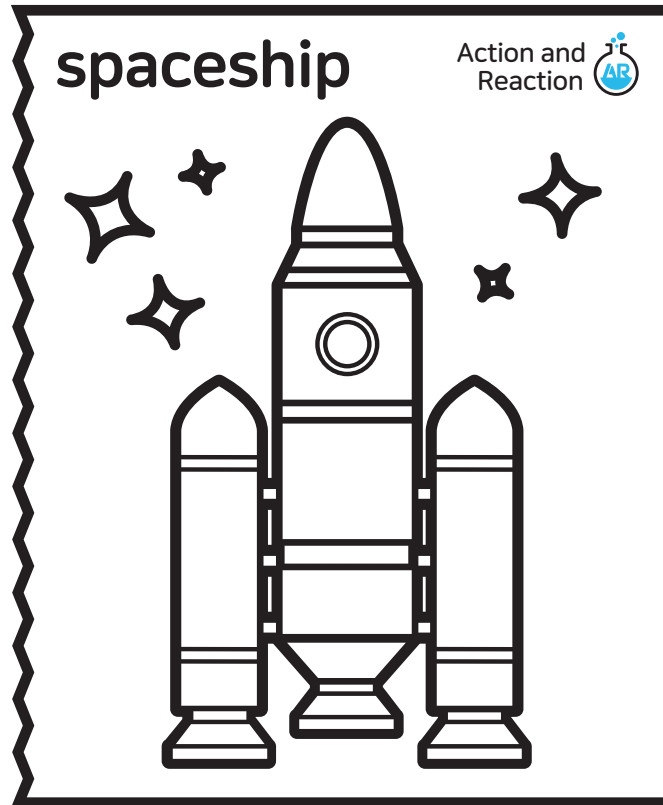
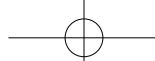
 The Universe
pages 36-37









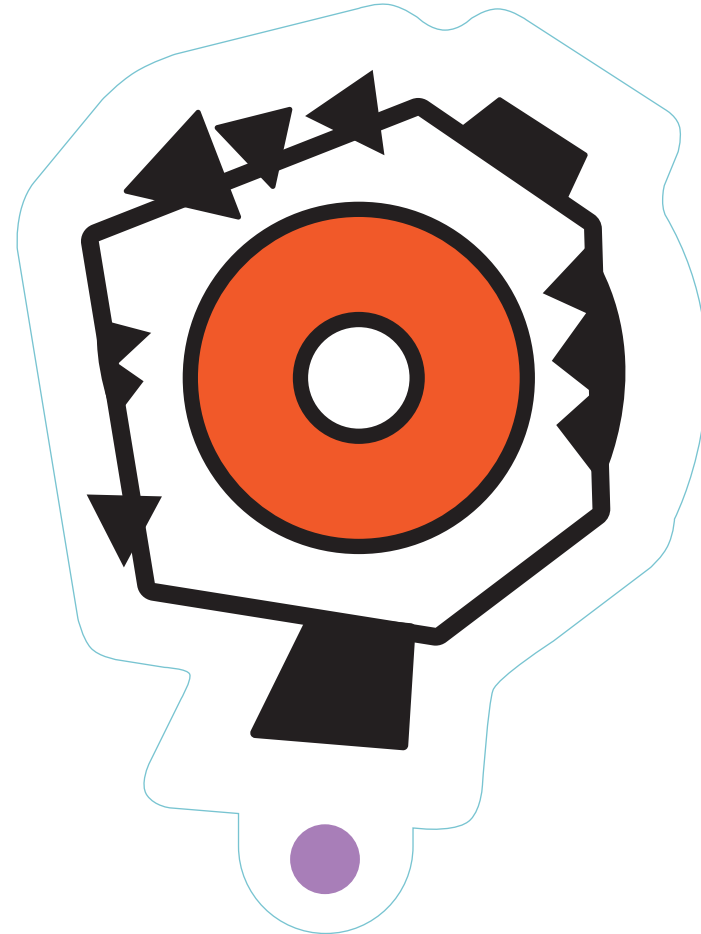


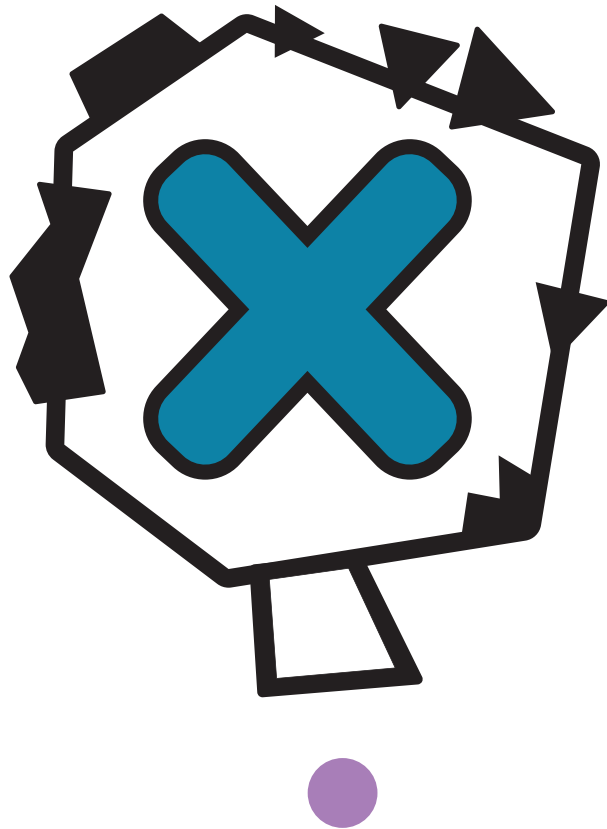
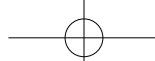


Newton



Forces and Energy



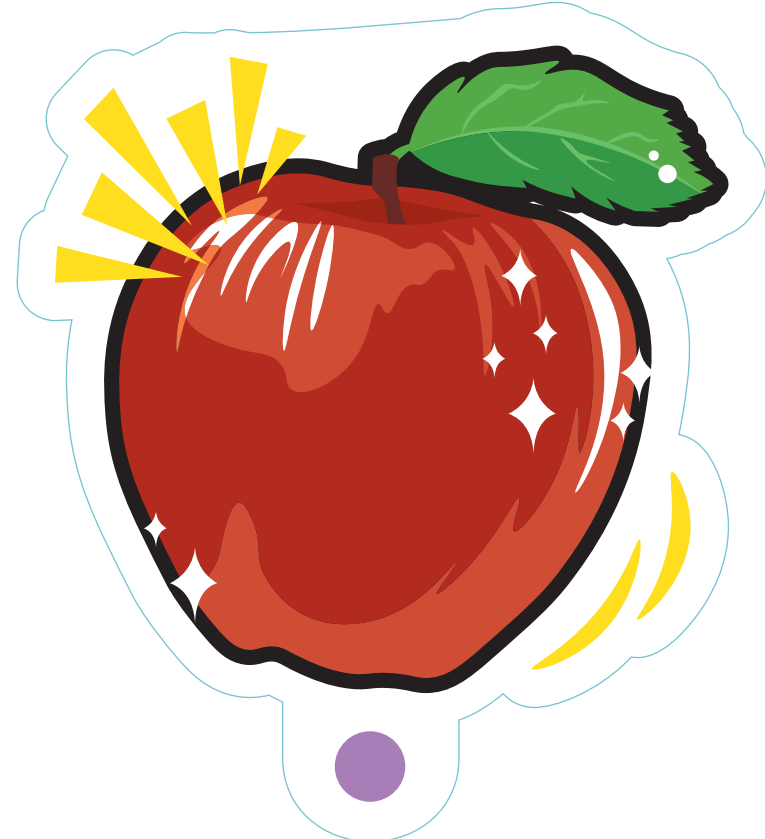
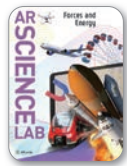
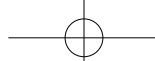


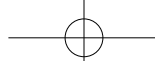
Forces and
Energy




Isaac Newton

- Isaac Newton became famous for his work on gravity and his three laws of motion.
- The famous story of an apple falling to the ground from a tree illustrates how Newton's work on gravity was inspired by things he observed in the world around him.






apple

 Forces and Energy
pages 8-9

banana

 Forces and Energy
pages 8-9





thermal camera



Forces and Energy

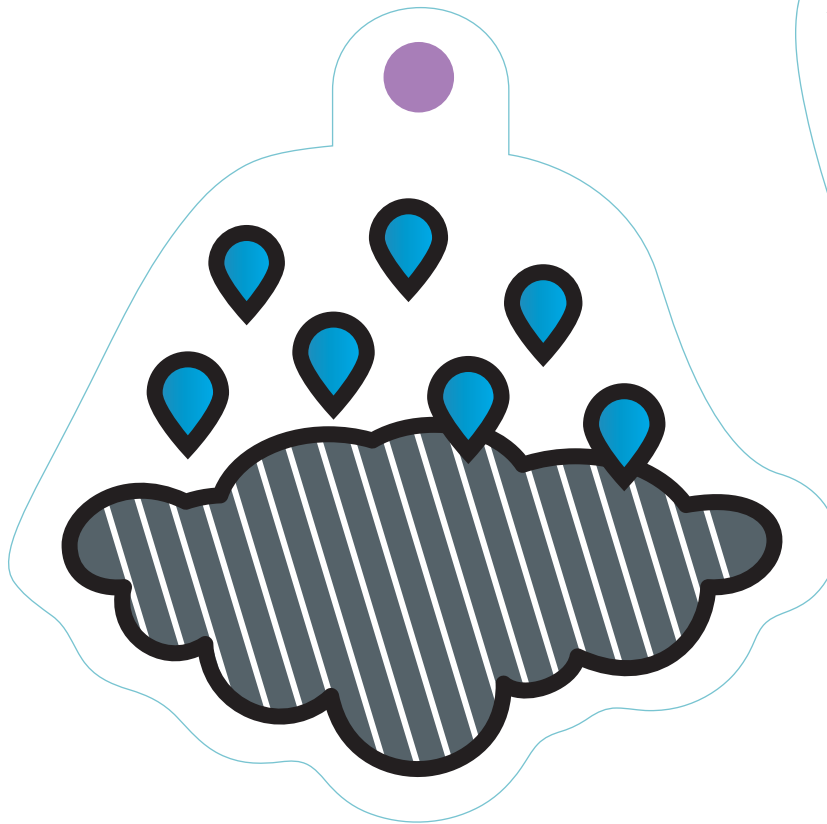
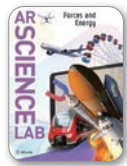
pages 26-27

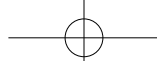
wind



Forces and Energy

pages 14-15





balloon



Forces and Energy

pages 30-31

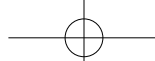
pages 28-29



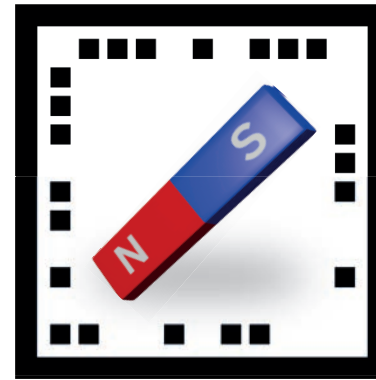
Forces and Energy

rain cloud





**horseshoe
magnet**



**bar
magnet**

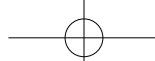


**ring
magnet**



**circular
magnet**





bar magnet



Forces and Energy

pages 34-35

horseshoe magnet



Forces and Energy

pages 34-35

circular magnet



Forces and Energy

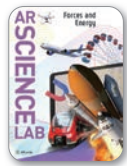
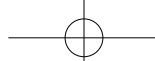
pages 34-35

ring magnet

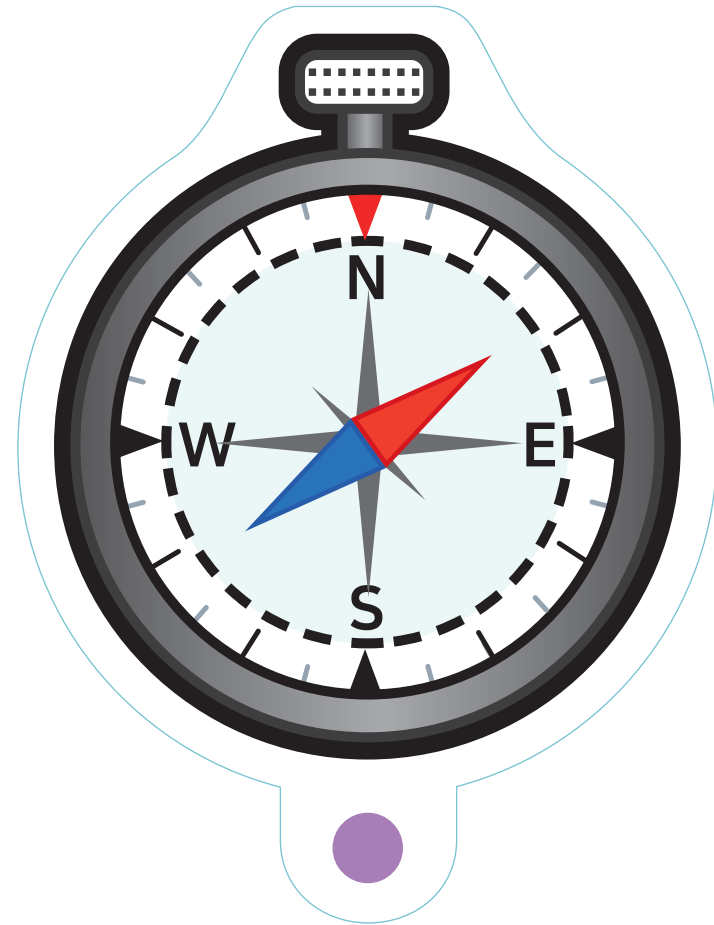
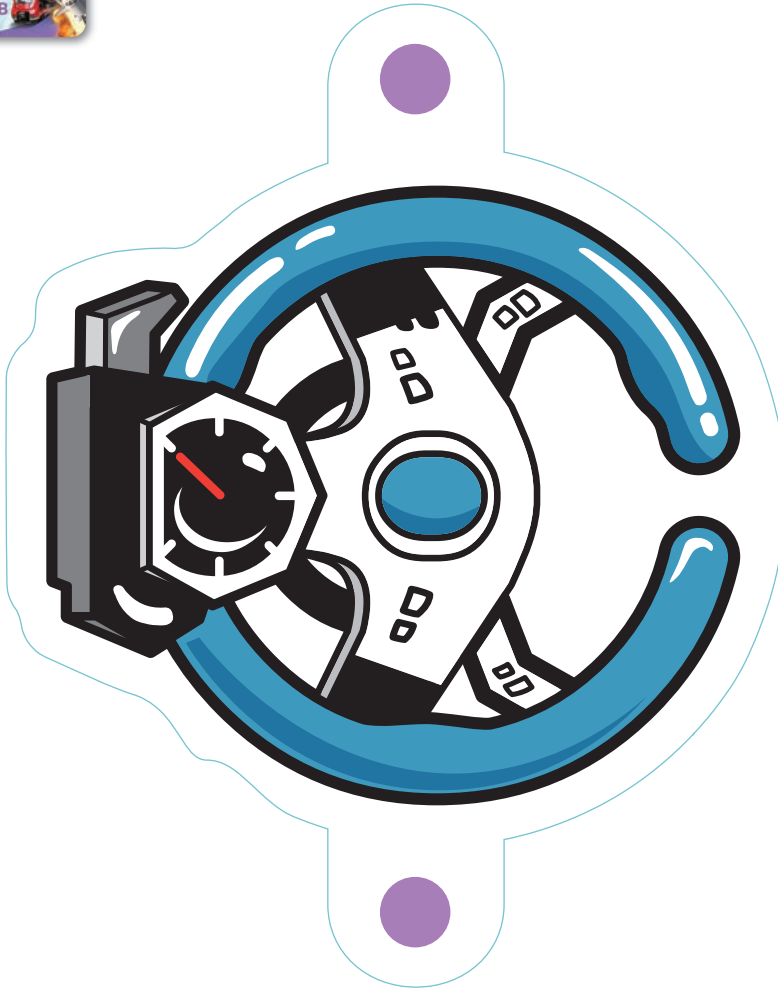


Forces and Energy

pages 34-35

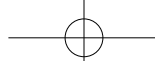


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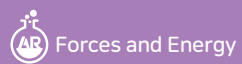


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compass

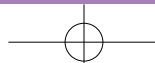


pages 36-37

steering
wheel



pages 38-39





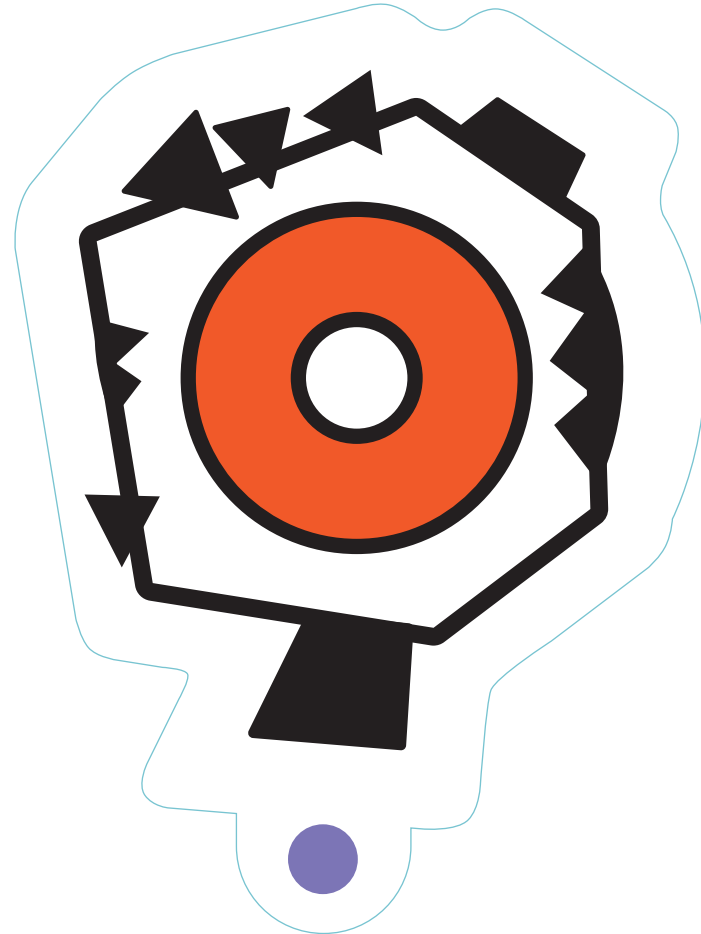
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Newton

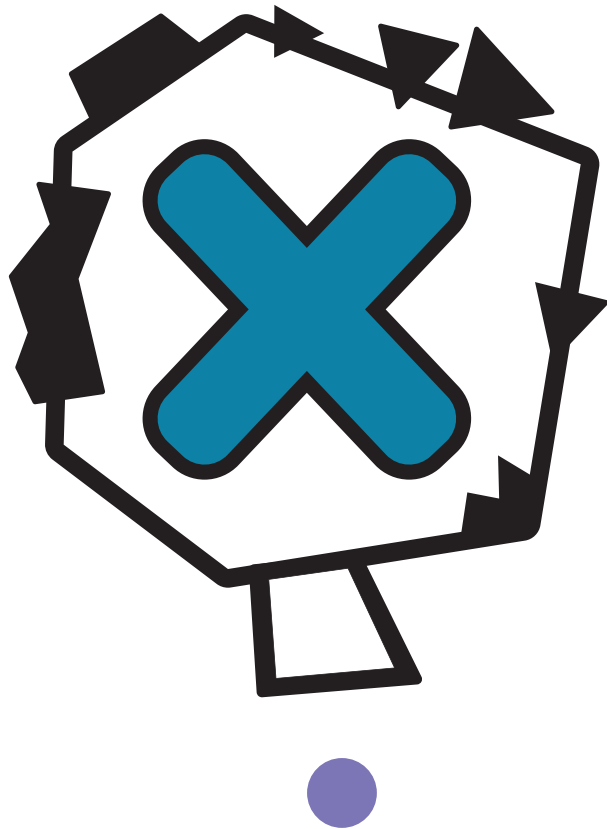


Light and Waves



ARpedia





Light and
Waves



Isaac Newton

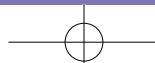
- Isaac Newton became famous for his work on gravity and his three laws of motion.
- The famous story of an apple falling to the ground from a tree illustrates how Newton's work on gravity was inspired by things he observed in the world around him.

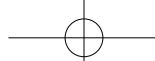


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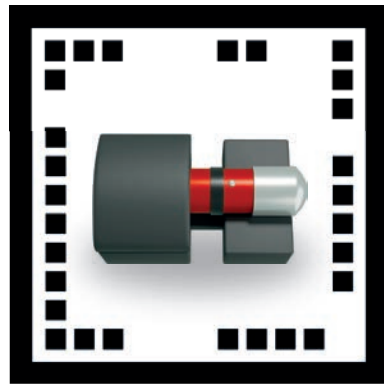
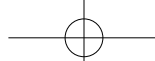




flashlight

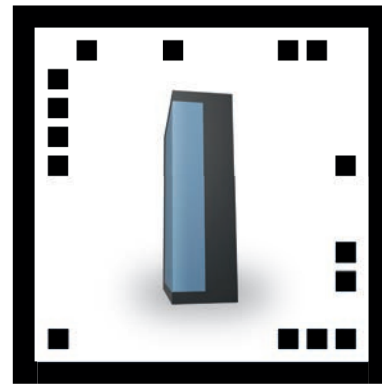


pages 6-7



**1 piece
laser**

AR
Light and
Waves



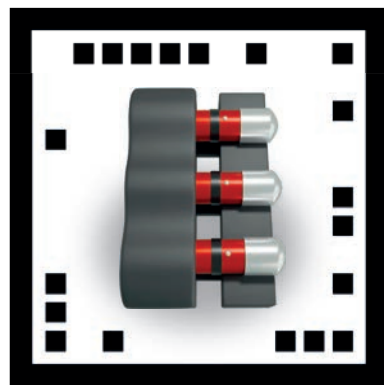
**plane
mirror**

AR
Light and
Waves



**concave
mirror**

AR
Light and
Waves



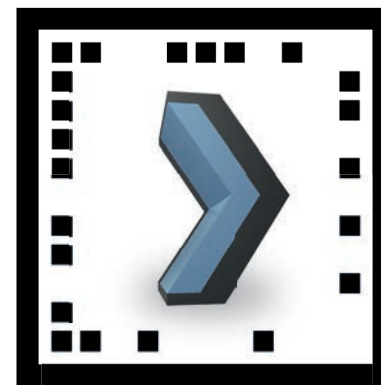
**3 piece
laser**

AR
Light and
Waves



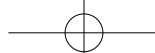
**convex
mirror**

AR
Light and
Waves



**perpendicular
mirror**

AR
Light and
Waves



**concave
mirror**



Light and Waves

pages 8-9

**plane
mirror**



Light and Waves

pages 8-9

**1 piece
laser**



Light and Waves

pages 8-9

**perpen-
dicular
mirror**



Light and Waves

pages 8-9

**convex
mirror**



Light and Waves

pages 8-9

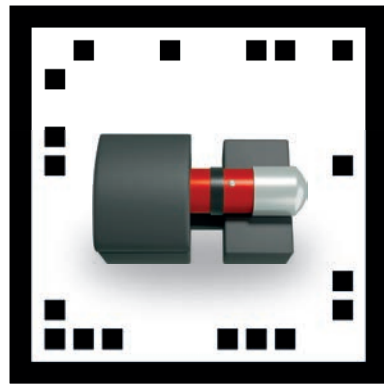
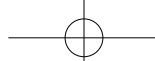
**3 piece
laser**



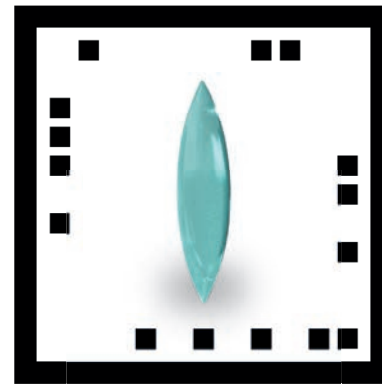
Light and Waves

pages 8-9

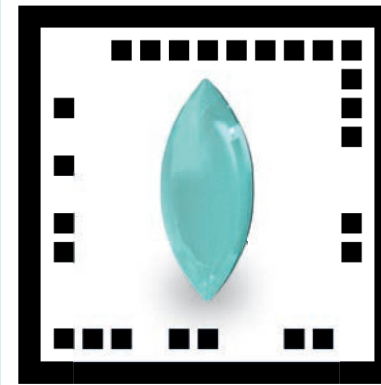




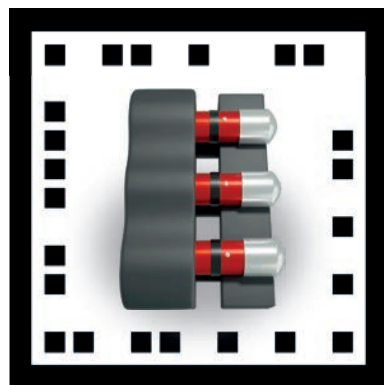
**1 piece
laser**



**thin convex
lens**



**thick convex
lens**



**3 piece
laser**

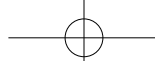


**thin concave
lens**



**thick concave
lens**





**thick
convex lens**



Light and Waves

pages 10-11

**thin
convex lens**



Light and Waves

pages 10-11

**1 piece
laser**



Light and Waves

pages 10-11

**thick
concave
lens**



Light and Waves

pages 10-11

**thin
concave
lens**



Light and Waves

pages 10-11

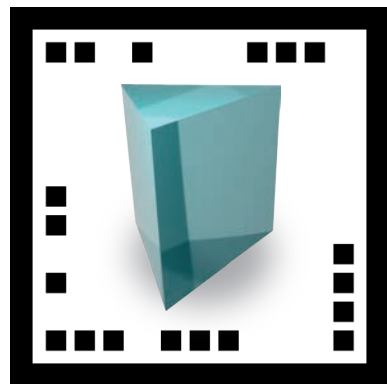
**3 piece
laser**



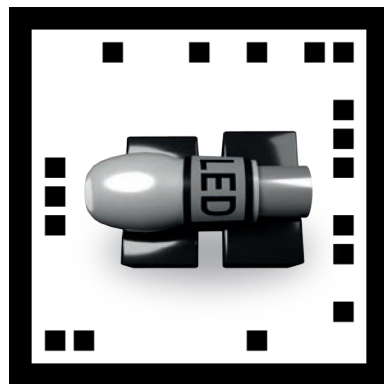
Light and Waves

pages 10-11





prism



LED light



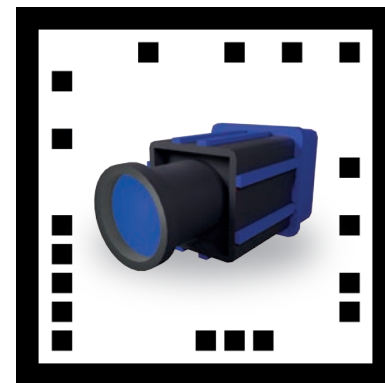
sunlight



red light

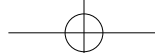


green light



blue light





sunlight



Light and Waves

pages 12-13

LED light



Light and Waves

pages 12-13

prism



Light and Waves

pages 12-13

blue light



Light and Waves

pages 14-15

green light



Light and Waves

pages 14-15

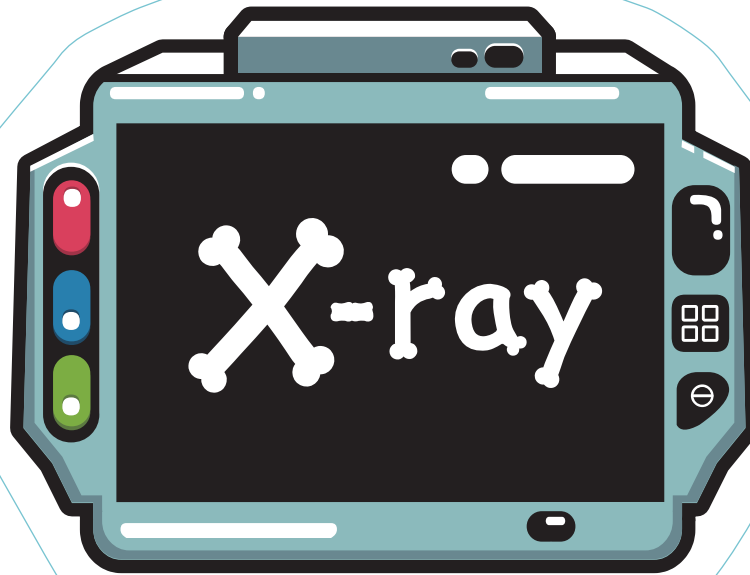
red light

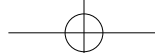


Light and Waves


pages 14-15








bat

 Light and Waves
pages 22-23

X-ray

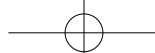
 Light and Waves
pages 16-17



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ARpedia



sound level meter



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