

A young girl with dark hair, wearing a white lab coat and clear safety goggles, is smiling at the camera. She is holding a black pen in her right hand and is working on a small, intricate mechanical device on a wooden table. The device appears to be a simple microscope or a similar scientific instrument. The background is blurred, showing a laboratory setting.

KEI Style Science Lesson Plan

"Gradual Release"

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TABLE OF CONTENTS

Name of the Lesson:	4
TEKS Content & Grade Level	4
Selected TEKS Student Expectation	4
Terminal Objective:	4
Daily Instructional Objective (What you will teach in one day):	4
List of All Materials Needed for this lesson:	4
Classroom rules & procedures:	4
Classroom Lab Videos:	4
Critique videos for class discussions:	5
Classroom Rules and Procedures	5
Tables for stations	5
Classroom lab materials (for investigation scenes)	5
Anticipatory Set (How will you “hook” your students into the lesson?):	5
I would say:	5
I expect the students	5
“I DO CYCLE” - Teaching:	5
Classroom lab:	6
Critique videos for class discussions:	6
Questions:	6
1. What were the correct lab procedures used by Sheldon, Beaker, what where things he was doing incorrectly?	6
3. What are ways that you can be respectful, responsible and safe in the classroom, hallway, bathroom and cafeteria?	6
Reteaching ideas:	6
Activity/Example:	6
“WE DO CYCLE” – Guided Practice:	7
Questions	7

Reteaching ideas:	8
Activity/Example:	8
“YOU DO CYCLE” - Independent Practice:	8
Questions:	8
Reteaching ideas:	9
Activity/Example	9
Closure	9
(How will you end the lesson and quickly review the concepts taught?):	9
Personal Reflection:	9
Analyzing the TEKS.....	10
Terminal Objective.....	10
Deciding on Daily Lesson Focus	10
Familiar and Unfamiliar Components	10
Lesson Plan Development Strength and Growth	10
Lesson and Activities	11
Classroom Rules & Procedures.....	11

NAME OF THE LESSON: Rules, Procedures and Lab Safety

TEKS CONTENT & GRADE LEVEL: Science & 5th Grade

SELECTED TEKS STUDENT EXPECTATION:

(A) **DEMONSTRATE** SAFE PRACTICES AND THE USE OF SAFETY EQUIPMENT AS DESCRIBED IN THE TEXAS SAFETY STANDARDS DURING CLASSROOM AND OUTDOOR INVESTIGATIONS; AND (C, A, P)

TERMINAL OBJECTIVE:

- After a classroom discussion and video review, students will demonstrate proper knowledge of safety
- classroom procedures with a pre-test of 80% accuracy and post-test of 80% accuracy of current
- classroom procedures for, safety, environmentally appropriate and ethical practices

DAILY INSTRUCTIONAL OBJECTIVE (WHAT YOU WILL TEACH IN ONE DAY):

1 hr. discussion and videos concerning

- classroom rules indoors/outdoors
- Rotation and Time Management
- Equipment Do's & Don'ts
- Data collection/Journal Entries

LIST OF ALL MATERIALS NEEDED FOR THIS LESSON:

CLASSROOM RULES & PROCEDURES:

- [Understand the Basic School Rules by Signing Savvy](#)
- [PBIS Good and Bad Examples by MPS PBIS](#)

CLASSROOM LAB VIDEOS:

- [Cringe Worthy Lab Safety](#)
- [General Lab Safety](#)

CRITIQUE VIDEOS FOR CLASS DISCUSSIONS:

- [Bill Nye the Science Guy Safety Smart Science Trailer](#)
[Behavior/Lab Safety Video Part 3](#)

CLASSROOM RULES AND PROCEDURES

TABLES FOR STATIONS

CLASSROOM LAB MATERIALS (FOR INVESTIGATION SCENES)

ANTICIPATORY SET (HOW WILL YOU "HOOK" YOUR STUDENTS INTO THE LESSON?):

- The students will learn various conduct classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices and will be able to demonstrate safe practices and the use of safety equipment along with making informed choices about conservation, disposal and recycling of materials
- Students will be notified of the objectives after the anticipatory set and then reviewed for understanding at the conclusion of the lesson.
- We will begin by discussing well known safety procedures like; "who knows what to do if their clothes are on fire?", "what do we do if glass is broken?", "what are the appropriate exits for emergencies?" and discuss why we do them.
- -"It's important to understand rules and procedures classroom flow and overall understanding. By the end of this class, you will be able to identify important classroom safety procedures for indoors and outdoors environments. Please keep in mind interesting information for classroom discussion of the topics to use in classroom demonstrations of safety practices and procedures for.

I WOULD SAY: "There was a contractor named Bob who didn't care about safety procedures. On a windy day he went to a worksite with flip flops, an opened button-down shirt, he forgot his hard hat and was too lazy to re-plug his tools, so he put a bunch of plugs on one outlet. Can anyone tell me what Bob is doing wrong?" I would apply each scenario to variations of "Bob" situations like: "What if Bob were in our class and the alarm rang, how could he respond poorly in this situation? How can he perform better?"

I EXPECT THE STUDENTS to come up with various ways Bob could be safer and better aware through preparations.

"I DO CYCLE" - TEACHING:

The concept is to bring a real-life scenario (presented in the critique videos and questions) to the

students: I would provide videos where we can critique the classroom scenarios and then discuss what the person is doing correctly and what they are doing wrong.

Classroom rules & procedures:

- [Understand the Basic School Rules by Signing Savvy](#)
- [PBIS Good and Bad Examples by MPS PBIS](#)

CLASSROOM LAB:

- [Examples of bad lab safety published by science teacher](#)
- Video by [Amoeba Sisters about General Lab Safety](#) as an introduction to correct and incorrect procedure questions

CRITIQUE VIDEOS FOR CLASS DISCUSSIONS:

- [Bill Nye the Science Guy Safety Smart Science Trailer](#)
- [Behavior/Lab Safety Video Part 3](#)

QUESTIONS:

1. What were the correct lab procedures used by Sheldon, Beaker, what were things he was doing incorrectly?

- he did not properly clean dishes
- he did not have gloves on when he used the scalpel
- he cut his finger and did not follow procedures
- Beaker drank what was in the beaker

3. WHAT ARE WAYS THAT YOU CAN BE RESPECTFUL, RESPONSIBLE AND SAFE IN THE CLASSROOM, HALLWAY, BATHROOM AND CAFETERIA?

RETEACHING IDEAS:

Reteaching will focus on hands on examples demonstrated by students of proper demonstrations of rules, procedures and lab safety along with teacher input of why these things are necessary so students can relate the cause or action with the effect.

ACTIVITY/EXAMPLE:

Students will form 5 student groups and investigate throughout classroom (walking throughout the

classroom as the teacher observes and ask questions about their choices), 5 examples of broken or followed rules and procedures throughout the area. We will then discuss ways to improve the situation or what made the situation correct.

"WE DO CYCLE" – GUIDED PRACTICE:

I will ask my students to, physically and on paper, demonstrate the actions they will perform in various lab, in class and out class activities. They will choose from a list of prepared scenarios in a jar and describe and perform the appropriate steps or reactions for each two-person group. We will begin by stating "It is important to not just know the information but actually perform the steps. Today we will discuss ways to apply this information in a "what if" scenario where I might ask you to show me how to do it or I might ask you how you would react to this situation. We are going to go over every answer in detail as a class so that we all understand that we ALL understand how our classroom ticks, so we can trust in each other for in class safety. We all want to be comfortable and the best comfort comes from understanding what is expected of you from the teacher and from your classmates. You also get to hear how other people understood the information and this can sometimes help you in understanding and/or help you form questions to ask that will help you. Listen to the questions that are asked for appropriate ways to ask and answer questions. I will be "assisting" you in answering and asking questions appropriately so that your questions and answers are expressed and understood." I would begin with the prepared scenarios.

I expect the students to use all their present information to answer questions, notes, notebook, textbook to answer questions.

QUESTIONS: copy of rules and procedures attached

1. You are in the restroom and hear the fire drill. What do you do? What if it were a big urgent emergency, what would you do to make sure your safe? Where does the class stand if there is an emergency? Do you return to the building for materials you feel are important? What if it was your iPhone or keys? What do you do if your clothes catch fire? What if the fire is a grease fire? How would you put it out?
2. Someone show me the "ready" position. Show me
3. How do you perform the pass its procedure? Show me as a class
4. What does Up! Up! and Away! stand for?
5. When do we raise our hands?

RETEACHING IDEAS:

We would review different scenarios for reteaching ideas until the students understand, by changing elements in the environment for the scenario not understood.

ACTIVITY/EXAMPLE:

Students will re-pair with their partner and come up with 3 scenarios to test other groups understanding of the information. They will test each other for a total of 6 questions. The now 4 group will choose the best of their scenarios to stump the classroom, each of the “4-groups” going one at a time.

“YOU DO CYCLE” - INDEPENDENT PRACTICE:

To make sure students understand rules, procedures and safety, I will:

1.) Ask the students to perform procedures as a whole class until every student can do it smoothly. I will say: "Show Me 'Ready, Set, Go!" when they enter the class until everyone can do it in 1 minute. I will then say, "write it down!" until this goal can be accomplished within 30 seconds (getting started). I will then have the students practice Hands up! Listen up!, Pass it!, quiet as a mouse! and "Close it up! until each student masters it. I will discuss hypothetical situations of rules being broken or followed and each student is to flip their cards for a yes or no response, green for yes and red for no, and ask if the situation was handled appropriately. Lastly, for lab safety, I will have a crime scene activity stations where "investigate" the staged scene and list all the incorrect safety practices occurring

QUESTIONS:

1. While walking to class, Hank realized he left his cellphone at his desk. The teacher was looking the other way and all the other students were talking to each other. He wanted to get it before anyone knew he had it, so he snuck off running down the hall, knocking over a first grader who began to cry. Hank did not stop he ran to the classroom, picked up the phone and sat back down before anyone noticed he was gone. Was Hank following the proper rules (card answer)? Can anyone tell me what rules he broke (verbal)? Do you believe he will break a rule again?

2. What if I am helping a student and you really need my help. I have skipped over you and started helping someone else. Do you get up from your seat to get my attention? Show me what you would do if you needed my help.

3. If you want to use a center, do you just get up and go? Do you raise your hand? Do you yell "HEY! I'm going to the center"? What do you do, show me? What will you need to access centers?

4. At the end of the day, do we just get up and go? Show me Close it up!

RETEACHING IDEAS:

- For procedures, we will practice the actions until everyone is doing it correctly
- For the rules, I would gather the students that are not understanding and go over the rules again. I would use hypothetical questions to keep them thinking
- For safety in labs, I would have the student review the staged scenario (from the videos and "I Do" Questions) and point out the various situations.

ACTIVITY/EXAMPLE: For lab safety, I would have various stations set up as crime scenes. Each student, 4 at a time, will rotate 5 lab stations and point out all the rules followed and those not followed. The students will grade their own papers, writing down the situations not seen. The students will turn in the papers for teacher review.

CLOSURE

(HOW WILL YOU END THE LESSON AND QUICKLY REVIEW THE CONCEPTS TAUGHT?):

The teacher will say:

"And so, students, can you tell me the importance of rules, procedures and lab safety"?

- the teacher will let 5 - 6 students answer

"The importance of rules, procedures and lab safety are to ensure that you are supported through proper preparation. If you understand the need of safety, then you will understand how to keep your area safe. You will also be aware of how to help students that have forgotten the rule, procedure or lab safety. When new students enter our classroom, it is our duty to make them aware of classroom rule, procedures and lab safety. We can work together well if we understand what is expected of us.

- The teacher will refer to personal notes taken during all activities for informal assessment and the students who needed reteaching of the concept.

PERSONAL REFLECTION:

Ask questions as students work to keep their minds focused on the activities, always ask how and why students chose their ideas.

ANALYZING THE TEKS

In analyzing the TEKS to construct this lesson plan of rules, procedures and lab safety, I made sure that students understood the purpose of demonstrating safe practices and the use of safety equipment. I did this by giving the students various ways of interpreting the information, visual demonstrations through videos of examples and scenarios. I also made sure students had a template by including information of classroom rules and procedures in the form of print and videos of the basic classroom rules. With the use of this foundation, students should be able to have a solid platform of property safety needed in the lab. Students will also increase their awareness as I asked application questions of proper use of rules, procedures and lab safety.

TERMINAL OBJECTIVE

The terminal objective concern of 80% accuracy of classroom procedures for, safety, environmentally appropriate and ethical practices were described in the various videos and class discussions of whole and small group activities of investigations throughout the classroom, the process of other groups interpretation of rules, safety and procedures and on scene crime investigation stations. This allowed students to think about what they learn and how it applies to them and others inside the classroom. The lesson plan also included appropriate rules and procedures that should be used in environments outside the classroom of school grounds and other facilities when investigating scientific environments for classroom instruction understanding.

DECIDING ON DAILY LESSON FOCUS

On deciding on the lesson's daily focus, I felt it necessary to present students with foundational information of appropriate behavior in general. The lesson plan letter elaborated on this information by including procedures for classroom function and supported the reasons for lab safety. I felt it was necessary to have hand-on understanding of information and a needful understanding of checking for safety throughout all activities by viewing the area for violations of safety, rules and procedures. These activities establish a classroom etiquette, student expectations and community building as everyone supports the safety of themselves and classmates.

FAMILIAR AND UNFAMILIAR COMPONENTS

LESSON PLAN DEVELOPMENT STRENGTH AND GROWTH

The familiar components of the lesson plan were the actual lesson plan. I did have difficulty in the beginning because I knew the information, I wanted to present but I was not sure of how to sum it into a one-day activity (I had a 3-day idea, but the lesson plan was for 1 day). I thought this would make the lesson plan easier but as we went through the various lesson plan building techniques, I was a bit lost on the proper ways to keep the information rounded. I felt that some things included in the break-down were a bit redundant, I could not think of how to broaden the activity. By the second application of establishing objectives and finding material to support my vision, I was able to view the lesson as a needful skill to increase understanding.

LESSON AND ACTIVITIES

In creating the lesson, I was aware of the information I wanted students to know. I knew they needed background before they could form their opinions on proper lab use and supported this in the development of rules and procedures through discussion and application questions. I also that the investigation of a crime scene would give the students a different perspective of making sure their environment was safe for use and the proper steps to take if something is out of the ordinary.

CLASSROOM RULES & PROCEDURES

1.) **Ready, Set, Go!**

Ready! Set! Go! Get those jackets, backpacks and lunches in their places and grab your cards so I know you are here then to your seat!

2.) **Write it down!**

- The Date
- Today's homework
- Write spelling word 5 times each

- If you finish, study for our pre-test

3.) **Flip Your Card**

- If you need the teacher's help, flip your name card to red and go to the next question. The teacher will be with you as soon as possible!
- If you need something or need to leave your seat, flip your name card to green and I will be with you as soon as possible!
- If you leave the room for the restroom, office, cafeteria, playground, put your name card in the slot!

4.) **Hands up!**

We only raise our hands when:

- We are ready
- We understand
- The teacher asks for it

5.) **Do Your Job!**

This is OUR class, and everyone has a job! Do your job like a professional. Be kind and courteous to all you help!

6.) Listen up!

When the teacher is talking, or a student is presenting all hands go up and lips are zipped to let the teacher/student know you are listening and paying attention

7.) Pass it!

When it is time to turn in work, pass it to your left. Last person to the left passes the paper to the front and keep it in order.

8.) Quiet as a mouse!

When the teacher's hands go up, your too loud, be quiet as a mouse!

9.) Up! Up! And Away!

If you finish your work and the teacher has nothing assigned you can either:

- Write spelling words 5 times
- Read quietly
- Fridays only! Turn in your center access card if you earned one for the week and choose a center!

10.) Close it up!

At the end of the day put all your things away! Everything goes where it belongs!

*I plan to only list the bold letters, so the procedures list will not look massive.