

What's Smaller Than a Pygmy Shrew Lesson Plan

Teacher

Date

School

SLE # NS.1.5.1, NS.1.5.5, PS.5.5.1,

OV.1.5.6, OV.2.5.3

Objectives:

Content: I will be able to make accurate observations about the items I investigate through writing and/or drawing. I will be able to communicate results and conclusions from scientific inquiry.

I will be able to identify the relationships of atoms to all matter by writing and/or drawing what I see through my hand lens.

Language: I will be able to use at least 3 of the vocabulary words while making accurate observations.

I will be able to contribute appropriately to class discussion by stating at least 1 observation during class discussion.

I will be able to listen attentively for main ideas while listening to the story What's Smaller than a Pygmy Shrew?

Assessment: Students will write and draw their observations of the items they investigated. The teacher can use a rubric to evaluate their observation sheet and key terms sheet. The teacher may also use the rubric to evaluate the students' short story.

Technology/Materials: A copy of the book What's Smaller than a Pygmy Shrew? By Robert E. Wells, Observation sheet, Key Terms sheet, small piece of mushroom for each student, dirty water, 1 M&M per student, a box of Nerds per student

Vocabulary: observation, accurate, conclusions, atoms, matter

Bloom's: Remembering Understanding Applying Analyzing Evaluation Creating

Questions: Describe what you believe the smallest object in the world looks like. Predict where you would be able to find the smallest object in the world. If you had to draw the smallest object, what shape do you predict it would be in? Do you predict that it would be any different from other objects? If you were to examine different items, what types of instruments or tools do you believe you would need?

High Yield Strategies: Identifying similarities & Differences Summarizing & Note Taking Cooperative Learning

Reinforcing Effort & Providing Recognition Setting Objectives & Providing Feedback Generating & Testing Hypotheses

Cues, Questions & Advanced Organizers Homework & Practice Nonlinguistic Representations

Instructional Strategies:

Set: Connect to background knowledge: What is the smallest object you have ever seen? Tell your partner what that object was and where you saw it. Once you have shared, I want you to figure out which of the objects shared is the smallest. You are going to share the object, where you saw it, and how you saw it. Meaning, did you use something other than your eye to observe it. If you had to use a tool to observe it, tell me what that tool did to help assist you. **When the students are sharing, the teacher can create a list of the objects for others to see. The teacher may also want to write down the tools used and where the objects were seen. This can help the students make predictions about where the smallest objects occur and what they could use to help them see the objects more clearly.**

Model: As I read the story, What's Smaller than a Pygmy Shrew?, I would like you to think about the objects in the story and how they compare to the items on our list. I want you to think about some similarities and differences between the items. As we get to certain terms, we will stop and draw some pictures of them to help us remember what they look like.

Guided Practice/Strategies: The students will listen to the story, What's Smaller than a Pygmy Shrew?, and compare and contrast items in the story to those items on the list. The students will also work on their Key Terms Sheet as they get to terms they are unfamiliar with

such as Amoeba, Paramecia, and Quark. The students can write the word and a brief explanation and then draw a picture that represents it. As you get to these terms, you can have the students work on them individually or as a whole class. If you choose whole class, then you can create a large-scale version of the terms and pictures on chart paper.

Intervention Strategies: Small group during independent work and modeling of strategies throughout the lesson.

Accommodations & Modifications (IEPs) The teacher may allow certain students to only draw on their observation sheet and not write out observations based on student needs.

Independent Practice/Activities: After the story is read, the students will get to explore and observe several different items. Allow the students some time to observe the items using their eyes and hand lenses. **As you are observing these items, I want you to draw a picture of the item as you see it without the hand lens, and then draw another picture of what it looks like under the hand lens. Also, write a brief description of your observations. While you are doing this, think about the parts of the object that are still too small to see and what you believe they would look like.**

Enrichment Activities: Draw a picture or write a sentence describing what the smallest part of the objects would look like.

Closure: Today we read [What's Smaller Than a Pygmy Shrew?](#) and explored and observed different sized objects. We found out that there are many objects that are smaller than what we can observe using our eyes and hand lenses. Scientists have not discovered and seen everything in the universe. Do you believe that there may be something smaller than an electron that scientists have yet to see? If you were to predict what that object would look like, how would you describe it?

Homework: Write a short story entitled, **What's Smaller than a Fifth Grader?**

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