

Know Your Rock (1st-2nd grades) Pre-Visit Activities

Vocabulary List and Student Definitions (early elementary level)

- **Predict:** a guess; to say what is going to happen in the future.
- **Observe:** to notice detail about something by using one or more of the senses
- **Senses:** how a person or animal obtain information about the physical world (sight, sound, taste, touch, smell)
- **Count:** to say numbers in order, usually starting at one; to add things up to see how many there are
- **Sort:** to arrange people, places, or things into groups according to how they are alike
- **Ask:** to make a request or communicate (talk) with somebody in order to get information.
- **Experiment:** a test that is done to see if a prediction is correct.
- **Journal:** daily recording kept in a notebook.

Key Point

1. Scientists pay careful attention to detail when making **observations**. They often write or draw what they observe.
 - a. Making observations includes using one or more of our senses. Observations help us learn as much information as possible about an object. Writing or drawing observations helps to focus on the detail of an object that may later be forgotten and/or go unnoticed.
 - b. Using our senses helps us to gather information about an object in greater detail. We use this information to **classify** objects. This is an important skill used by all scientists.

Teacher Background and Supporting Information

1. What is science?
 - a. **Science** is the study of the physical and natural world by observation and experimentation. Examples include but are not limited to:
 - i. Biology - the study of life
 - ii. Chemistry - the study of matter
 - iii. Physics - the study of matter, energy, force, and motion
2. What is a scientist?
 - a. **Scientists** are people who have scientific training and study one or more areas of science. They:
 - i. **Ask** questions.
 - a. What if? How? Why?
 - ii. Use their **senses** to make observations.
 - a. Seeing
 - b. Hearing
 - c. Tasting
 - d. Touching
 - e. Smelling
 - iii. Make logical **predictions**, or educated guesses about what will happen in the future.
 - iv. **Experiment**, or conduct a test in order to discover whether a

prediction was correct or what the results will be.

3. What is Sorting?
 - a. **Sorting**, or **classifying**, is arranging objects according to shared attributes.
 - b. Scientists group people, places, and things to help make sense of gathered information.

Student Activities

1. Read What is a Scientist? by Barbra Lehn to gain a better understanding of the role of scientists.
 - a. No matter what area of science is being studied, all scientists share certain characteristics.
2. Read Everyone is a Scientist by Lisa Trumbauer and Gail Saunders- Smith to understand that we often use science in our everyday lives; therefore we are all natural scientists.
3. Do a sorting activity using buttons, shells and/or other items. Challenge students to **sort** and **classify** into groups. Have students explain their reasoning for the groups they have sorted the items into. Was it by:
 - a. Object type?
 - b. Size?
 - c. Color?
 - d. How does this help scientists when studying objects?
4. Do a scent test to challenge students to use their sense of smell to identify unknown odors.
 - a. Using flavor extracts works well such as, lemon, vanilla, mint, cherry, orange, etc.
 - b. Add 1-2 drops of extract onto a cotton ball and then place into a small container with a lid or into a sealed sandwich bag.
 - c. Identify the container with a number.
 - d. Ask them if the smell is:
 - i. Sweet?
 - ii. Sour?
 - iii. Strong?
 - iv. Weak?
5. Do a touch test to challenge students to use their sense of touch to identify unknown objects.
 - a. Place an object into a black garbage bag (or shoebox with lid).
 - b. Seal the open end of the bag (or box w/ lid) shut and cut two holes in the bag (or box) at the opposite end, just big enough for students' hands to fit but without seeing into the holes.
 - c. Place one object in each bag (or box).
 - d. Ask them to describe the object. Is it:
 - i. Hard?
 - ii. Soft?
 - iii. Flat?
 - iv. Round?
 - v. Furry?
 - vi. Hot?
 - vii. Cold?

What is that smell?

Mystery Smell	I think the smell is...
1	
2	
3	
4	
5	



What is that touch?

Mystery Touch	I think that feels like...
1	
2	
3	
4	
5	

