THE CHILDREN'S MUSEUM AT LA HABRA
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Think Like a Scientist: Observe, Sort, and Classify

Overview

Using senses and making observations are important skills for scientists, especially those who study insects. In this activity, students will use their senses to observe and describe various objects.

Processes/Skills

- Observing
- Classifying
- Recording
- Sorting

Time Required: 30 minutes

Materials Required:

- Small plates (2 per student)
- Magnifying glass (optional)
- Bag with 20 small objects (1 bag per group)
- Talking Stems chart (attached, 1 per student)
- Sticky notes

Connecting to the Standards:

- Language Arts:
    - S.L. 1. Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
    - SL.1.4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.
    - SL.1.5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- Science:

- Scientists use different ways to study the world. (1-PS4-1)
- Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena (1-PS4-2)

Activity Objectives

Students will be able to use their senses to observe various objects. Students will be able to sort and classify objects based on their attributes.

Assessment

Rotate around the room to observe your students as they work. Each student should check in with you once they feel that they are finished sorting and classifying their objects.

Introduction

- Tell your students that today, they will be doing the work of scientists by observing different items. Define “observe” as what scientists do when they use their senses to gather information about something.

- Explain to your students that scientists often use their observations to sort and classify. Define “sort and classify” as grouping objects together using similar attributes, or features, of the objects.

- Model how to observe something by using your senses to gather information about an object. Use a small object, such as a rock, from one of the group bags to illustrate this for the class. Your observations should include how the item looks, feels, smells, sounds (if applicable) and tastes (if applicable). For example: I see that this rock is gray. I feel that it is rough and hard. etc.

- Show your students the Talking Stems Chart and model how to describe your observations using the prompts on the chart. For example: With my eyes I can see that this rock is __ (gray, small, round). With my hands I can feel that this rock is _____ (soft, smooth, bumpy).

- Grab a few more items from one of the group bags. Show your class a small group of these materials, and declare an attribute you will use to sort and classify the objects. For example, you could sort them by color, shape, or size.

- Demonstrate how you observe the objects in the collection and sort them on two plates by the attribute you've chosen.

Activity

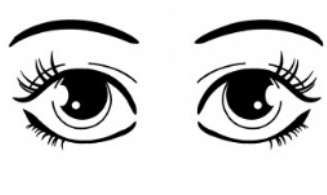
- (**Group work/interactive modeling**) Invite your students to sit in groups. Give each group a bag with a collection of shells, buttons, rocks, or any material of your choice.
- Ask students to observe the objects using their senses of sight and touch.
- Refer students back to the Talking Stems Chart and encourage students to describe their observations to their group according to the chart's prompts.
- **(Independent working time)** Instruct each student to individually choose 5 objects from their group's collection.
- Ask students to choose ONE attribute they have observed in their collection sample, such as color or texture.
- Pass out 2 small plates to each student.
- Ask students to label each plate using sticky notes. For example: Blue and Not Blue.
- Instruct students to sort each object according to the selected attribute.
- **Support**- Some students may need you to determine the categories. Students can place the objects into the categories based on their observations.

Review and Closing

- Tell the students that scientists are always thinking about how things can be grouped together. When we are looking closely at something, or observing, we can always think about how things can be grouped together according to how they look and feel. This helps scientists understand the world around them.
- Ask your students to remove or cover the category labels on their plates.
- Invite the class to walk around the classroom and visit other groups.
- Encourage each student to try to determine what their classmate’s categories were based on the objects on each plate.

SOURCE: E. (2015). Think Like a Scientist: Observe, Sort, and Classify Lesson Plan | Lesson Plan | Education.com. Retrieved October 13, 2016, from http://www.education.com/lesson-plan/think-like-a-scientist-observe-sort-and-classify/

We Can Observe!
Talking about our observations might sound like this...



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"With my hands I can feel that this _____ is _____."

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