

GRADE: 2 & 3

SUBJECT: SCIENCE

Estimated Time:
40-60 minutes

Topic:
Introducing Scientific Methods

Lesson:
Making & Recording Observations

Sample Lesson Plan

LESSON FOCUS/GOALS:

The purpose of this lesson is to review the skill of making observations and setting criteria for good observations. This also provides the teacher opportunity to pre-assess what observation skills students have as they circulate to listen to student observations. Students will need to continue practicing throughout they year.

MATERIALS NEEDED:

- Chart paper
- Tray(s) with pinecones, rocks or other natural specimens
- Magnifying glasses (one per student if possible)
- Unlined index cards
- Lined index cards
- 1/4 inch graph paper
- 1 cm graph paper
- Pencils

LEARNING TARGET:

I AM LEARNING HOW TO MAKE
GOOD OBSERVATIONS

LEARNING ENGAGEMENT

Introduction (5 minutes)

- Begin the lesson by asking students if they have ever noticed interesting things in their surroundings or discovered something new.
 - Explain that scientists are curious people who like to explore and learn about the world around them by making observations.
 - Tell them that today, they will become scientists and learn how to make scientific observations.

What are Observations? (5 minutes):

- Ask the students what they think an observation means. Write their responses on the chart paper or whiteboard.
- Explain that an observation is when we use our senses (sight, hearing, touch, smell, taste) to gather information about something. *This would be a good term for science word wall or for students to put in glossaries

Can someone make an observation about this room?"

c. Record student responses on chart paper under the heading "Making Good Observations."

- Give examples of simple observations, such as noticing the color of a flower, the sound of a bird, or the feel of a soft blanket.

d. Help students differentiate between empirical (objective) observations made through the senses and non-scientific statements.

e. Provide examples of good observations (e.g., "I see six hanging lights") and non-scientific statements (e.g., "it is ugly").

If students need more help or vocabulary to describe

f. It might help to review texture & shape words with students

Making Observations Activity (15 minutes)

a. Divide students into small groups and provide each group with a tray of rocks and hand lenses.

b. Instruct students to examine the rocks and make detailed observations.

. Emphasize the importance of using their senses to make observations.

d. After approximately five minutes, have students select one rock to focus on.

e. Instruct students to record as many detailed observations as they can about their chosen rock on unlined index cards.

f. Circulate among the groups, guiding and assessing students' observation skills using appropriate questions (e.g., "What sense did you use to make this observation?").

Observation Sharing (10 minutes)

a. Collect the observation cards and rocks from each group.

b. Redistribute the trays to different groups.

c. Ask students to select an observation card and find the rock that matches the description.

d. Each student who found a matching rock should stand, share the information on the observation card, and show the class the rock.

e. Verify the accuracy with the student who created the observation card.

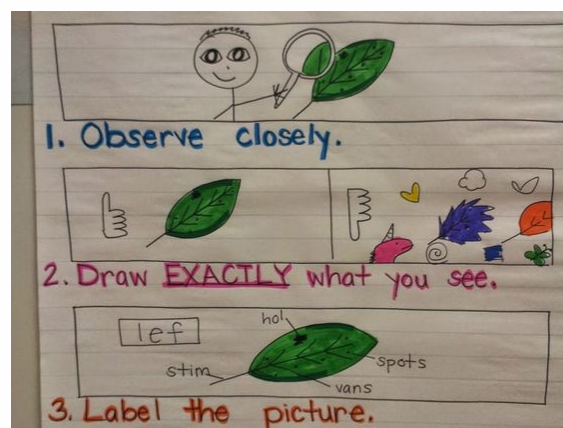
f. Discuss with the class which observations were most helpful and why.

Reflecting on Good Observations (5 minutes)

a. Ask students, "What did we learn today about making good observations?"

b. Allow students to share their responses, emphasizing the importance of detailed observations using the senses and avoiding non-scientific statements.

How to Record Observations



Adapted from: owlbeteachingyou.blogspot.com

grade 3 Continue on

Purpose: How the use of tools helps make and record better observations

- Enhancing Observations Activity (15 minutes)

- a. Review the "Making Good Observations" chart from the previous activity.
- b. Provide students with hand lenses and a tray of rocks.
- c. Instruct students to examine the rocks and make "better" observations this time.
- d. Introduce the second tray containing lined index cards, $\frac{1}{4}$ inch graph paper, 1 cm graph paper, and pencils.
- e. Encourage students to record their observations using different materials.
- f. Circulate among the students, asking questions about their use of the materials and encouraging them to think about different types of observations they can make.

Observation Sharing and Closure (10 minutes)

- a. Collect the observation records and rocks from each group.
- b. Redistribute the trays to different groups.
- c. Ask students to select an observation record, find the matching rock, and share their findings with the class.
- d. Discuss which observations were most helpful and why.
- e. Conclude the activity by revisiting the question, "What did we learn today about making good observations?"
- f. Allow students to share their insights Record criteria on an anchor chart

Source: Anderson, K. and Martin, D. (2006) Unlocking the Power of Observation. Science and Children: NSTA September p. 32-35