

What is the World Made Of?

Grade 2

Lesson created by: Marion Carol Smith and Alison Board

Length: 4 days (30 minutes/day)

Science Objective:

SOL 2.3-Students will investigate and understand basic properties of solids, liquids, and gases.

Language Arts Objectives:

SOL 2.11- The student will write stories, letters, and simple explanations.

SOL 2.12-The student will edit writing for correct grammar, capitalization, punctuation, and spelling.

Materials:

- *What is the World Made Of?* by Kathleen Weidner Zoehfeld
- Chart paper
- Markers
- Examples of solids such as a wooden block, clay, etc.
- Perfume
- Balloon
- Straws (1 for each student)
- Small pieces of paper
- Science journals
- Pencil

Procedure:

Day 1 (Introduction and Teaching of solids)

1. Read the book, *What is the World Made Of?*, aloud to the students.

2. On chart paper, write the word "solid" in a web format. Ask students for examples of solids in the classroom by playing "I Spy." Write down the responses of students on the chart paper.
3. The teacher will show students various solids and pass them around the room for the students to observe. Using a science journal, the students will use their five senses to record observations.
4. Homework: The students will bring a solid from home to show the class the next day. The solids that the students bring in will be showcased in the "solids museum" in the classroom.

Day 2 (Liquids)

1. Read pp. 12-13 from the book as a review of liquids.
2. On chart paper, write the word "liquid" in a web format. Have students brainstorm examples of liquids.
3. Teacher will have various stations throughout the room. At each station there will be a type of liquid and a different shaped container. Students will pour the liquid into the container and record their observations in their science journals.
4. After students visit all of the stations, the teacher will discuss observations with the students. The teacher will stress the concept that **liquids take the shape of whatever container they are in.**
5. Homework: The students will illustrate an example of a liquid they found at home. Their drawings will be displayed in the "liquid museum" in the classroom.

Day 3(Gases)

1. Read pp. 14-17 from the book as a review of gases.
2. On chart paper, write the word "gas" in a web format. Have students brainstorm examples of gases.
3. The teacher will demonstrate how gases fill up the entire space they are in by spraying perfume in the room. The teacher will call on students in various locations of the classroom and ask them if they can smell the perfume.

4. The teacher will emphasize that **gases are invisible**.
5. The teacher will blow up a balloon and ask students what gas is inside of the balloon. Have students predict what will happen when the balloon is released. The teacher will then release the balloon in front of the students.
6. The teacher will give each student a straw and a tiny piece of paper. The teacher will instruct the students to place the straw in their mouth, point it up toward the ceiling, and place the piece of paper at the other end of the straw. The teacher then instructs students to blow into their straws.
7. **Homework:** The students will illustrate examples of gases they found at home. Their drawings will be displayed in the "gas museum" in the classroom.

Day 4 (Review and Assessment)

1. The teacher will review the three charts made earlier in the week.
2. The teacher will have students walk around the room and visit each of the three "museums."
3. Students pair up and complete sorting activity. Pictures will be given to the students. The students must correctly group them into solids, liquids, and gases.

Writing Centers:

- Students describe objects in the "solids museum" using their five senses.
- Students write riddles using descriptive words to describe the object they have chosen. (ex: What is rough and rectangular-shaped? A: a block of wood)

Differentiation Activities:

- "Ready to go Group" will take a large sheet of paper and fold it into four sections. Label one section "solids," one section "liquids," one section "gases," and the fourth section "mixtures." Students will go on a hunt at school and at home and record as many items as they can. They will

categorize objects under "solids," "liquids," "gases," or "mixtures," (ex: chicken noodle soup is a mixture of broth(liquid), noodles(solid), and steam rising above it (gas.)

Sorting Activity

