



WHAT'S THE WORLD MADE OF?

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Lesson Summary for Grade 2

Students practice identifying the states of matter by examining fishbowls with various contents. As a class, the students discuss their observations and the characteristics of matter in each state. Students listen to the story *The Rainbow Fish* and look for examples of solids, liquids, and gases in the Rainbow Fish's environment.

Science Activity: Glitter Wands

Students observe examples of the three states of matter and identify matter in each of these states.

Source: Gertz, S.E.; Portman, D.J.; Sarquis, M. *Teaching Physical Science Through Children's Literature*; McGraw-Hill: New York, 1996; pp 59–66. (ISBN 007064723-2)

Key Science Topics:

- states of matter
- density

Key Process Skills:

- observing
- collecting data
- classifying

Course of Study Science Objectives for Batavia (Proficiency Match 4-2 and 4-11):

- Investigate and discuss different forms of matter (liquid, solid, and gas). (Matter I1)
- Invent and test different procedures to explain liquids, solids, and gases. (Matter A1)
- Search for and collect information on the states of matter and where those examples are found in the environment. (Matter A2)

Set up several different bowls containing matter in different states. Have one bowl appear empty (containing air). Have one bowl with solids only. (Be sure to put in sequins and glitter.) Have a bowl with water only and another with water, sequins, and glitter. Tell the students to observe what is in the bowls. Explain that the students will be able to classify what is in each bowl after they listen to this story. Read *What Is the World Made Of? All About Solids, Liquids, and Gases* by Kathleen Weidner Zoehfeld (ISBN 0064451631). Discuss characteristics of the states of matter as you read the story.

After reading the story, look at the bowls again and make a class chart categorizing the objects in the bowls as solids, liquids, or gases. Be sure to have students note where the objects in the bowls are in relation to each other. For example, are the solids on the top or

bottom? Are they floating?

If students do not believe that the empty bowl really contains air, demonstrate this activity: Put a plastic bag over the mouth of a jar with a rubber band. Then have students try to gently push the bag into the jar. There is resistance because the air in the jar takes up space.

Reading Activity

Students identify the main idea of a story and relate it to their own lives.

Read the story *The Rainbow Fish* by Marcus Pfister (ISBN 1558580093) aloud. As the students listen to the story, have them discuss the characteristics of some of the solids, liquids, and gases in the ocean habitat. After reading, have students discuss the main idea of the story. What lesson did the Rainbow Fish learn? (to share and to treat others nicely) Why is this an important lesson? Determine some cause and effect relationships.

Put students in groups of three to four and choose one to be a recorder. Have each group make a chart contrasting the way the Rainbow Fish felt and acted at the beginning of the story with how he acted at the end. When the groups are finished, record their ideas on a class chart. Point out the characteristics of a good friend.

Writing Activity

Students write journal entries about an imaginary friend.

Have students pretend that they are friends with the Rainbow Fish. Ask students to write in their literature journals about what they would do with their new friend. Invite the children to share their entries with the class.

Music Activity

Students use a familiar melody to sing about the characteristics of solids, liquids, and gases.

Display the following song lyrics on an overhead projector. Say the words together first. Talk about any unfamiliar words and meanings. Sing the song to students. Then have students join in.

The States of Matter Song
(Sing to the tune of “All Around the Mulberry Bush.”)

*A liquid changes shape you know,
From pitcher into glass does flow.*

*A solid stays the same, you see,
The shape's the same consistently.*

*Air's in each glass before you fill it.
It doesn't stain if you spill it.
When you think there's nothing there.
Think again—air's everywhere.*

Art Activity

Students draw solids and liquids.

Give students construction paper. Have them fold the paper into fourths and draw examples of two solids and two liquids and label them.

Social Studies Activity

Students recognize that water (a liquid) makes up 98% of the Earth.

Ask students if they know what the most common liquid is on Earth? When someone says water, show students a world map or globe. Point out the oceans and list them on the board. Teach students the song below to help them remember the oceans. Point to the location of each ocean as you sing the song together. Then give students a blank map of the world and have them fill in the ocean names.

Oceans Song

(Sing to the tune of “Are You Sleeping?”)

Pacific Ocean, Pacific Ocean

Atlantic, Atlantic

Indian and Arctic

Indian and Arctic

These are the oceans.

These are the oceans.

Course of Study Social Studies Objectives for Batavia (Proficiency 4, 6, 9):

- Develop map skills and associated language.
- Name and locate the continents and oceans.