

Project FOCUS
Best Lessons
SECOND GRADE

Title of Lesson: States and Changes of Matter

Theme: Physical Science

Unit Number: 1 **Unit Title:** Properties of Matter

Performance Standard(s) Covered (enter code):

S2P1 Students will investigate the properties of matter and changes that occur in objects.

S2P1a Identify the three common states of matter as solid, liquid, and gas.

S2P1b Investigate changes in objects by tearing, dissolving, melting, squeezing, ect.

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Enduring Standards (objectives of activity):

Habits of Mind

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

Content (key terms and topics covered):

Questions: What is matter? What are the three states of matter? What are the characteristics of the states of matter? How can matter change?

Topics: Matter takes up space and had mass. The states of matter are solid, liquid, and gas (shown based on their observations). Matter has different properties. The states of matter can be altered from one form to another.

Terms: solid, liquid, gas, condensation, evaporation, melting, cooling, dissolving, mixture

Learning Activity (description in steps)

Abstract (limit 100 characters): The purpose of this activity is to allow the students to understand the different properties of matter and the changes that it undergoes.

Details: Before performing the activity, prepare the pancake mixture (texture should be a little thick) and store it in a ziploc bag. Also boil hot water and place it inside the thermos, blow the balloon, and fill ice in a ziploc bag. Fill water in a ziploc bag before performing the activity as well. Place all of the prepared objects (pancake mixture, hot and cold water, balloon, ice, candle, and pencil) on the table for the students to see. The students touched all the objects and described them using different words. I wrote what they said on a white board. After, I asked them to tell me what state of matter each object represents. I wrote that on the white board as a chart. I told the students to write these observations in their notebook as well. The students then discussed their observations by comparing and contrasting properties of the states of matter of all the objects. I asked the students various questions of the physical changes in matter such as what would happen if I put water in the refrigerator. After discussing the physical changes of evaporation, condensation, melting, and freezing, I gave them a worksheet to conclude the discussion. The worksheet contained names of various objects. The instruction was to label

the state of matter of each object. The questions in the end contained a description of the properties of each state that they needed to label as well.

Materials Needed (type and quantity): Mixture of pancake mix and water, ziploc bags, water, balloon, candle, thermos water bottle, pencil, ice

Notes and Tips (general changes, alternative methods, cautions): The group discussion throughout the activities helped the learning process for the students; however, they can easily drift to another topic. Try to maintain the students focus on the topic without losing their attention. The boiling water is hot so make sure that the students handle all objects with care. Keep the students away from putting anything in their mouth. Asking questions is a good way to keep the students focused.

Sources/References:

- 1) Georgia Science "Spotlight on Georgia Performance Standard" book
- 2) http://www.superteacherworksheets.com/matter/matter1_WMTBR.pdf
- 3) [Click here to enter text.](#)