

Intro to States of Matter

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Unit: [Physical Science](#)

Course: Science 3rd Grade

Subjects: Science, Science Skills, Biology / Life Science, Earth and Space Science, Physical Science, Physical Science, Science, Matter and its Properties

Grade Level: Second grade

Objective: Students will provide prior knowledge about what they think the world is made of.

Length: 30 minutes

State Standard: Grade Three Physical Sciences 1. Energy and matter have multiple forms and can be changed from one form to another. e. Students know matter has three forms: solid, liquid, and gas. h. Students know all matter is made of small particles called atoms, too small to see with the naked eye.

Assigned Files: [D1-IntroSoMSortP.pdf](#)

PREP

- Have an example of a solid (book), liquid (bottled water) available.
- Copy Student Response Sheet. Materials needed: scissors, glue
- Check access to youtube videos. They can be omitted.

LAUNCH

- Ask students to look around the room and think about what the world is made of.
- Have students share their ideas. (Chart or list on the board)
- Tell: Scientists classify everything in the world as **matter**.
- Tell the students that for this unit in science, they will be learning what matter is, the different types/or states of matter, and how the different states can change from one to the other.
- Define: Matter is anything that takes up space.

EXPLORE

Show one (or both) of these introduction videos:

<http://www.youtube.com/watch?v=9xDNJS MikBo>

http://www.youtube.com/watch?v=guoU_cuR8EE

- Ask students to tell their partner what matter is and what were the 3 types of matter shown in the video.
- List the 3 types of matter in 3 columns: Solid, Liquid, Gas
- All the matter in the world is classified into these 3 types.
- Things that are solid have their own shape.
- Hold up a book. This is a solid. (show other examples)
- Have students look around the classroom and share other objects that are solids.
- Things that are liquids can be poured and they take the shape of their container.
- Show a water bottle, or tell how water takes the shape of a cup or a bottle.
- Have students share examples of liquids.
- A gas fills up all the space that it can. This room is filled with gas. The gas that we breath is called oxygen.
- **Show:** student response sheet.
- Students will cut, sort and glue objects into their correct state of matter. They will also fill out their own examples for each state of matter.
- Hand out worksheet for students to work on and complete.

CLOSE

- After 10-15 minutes bring the students to the carpet to discuss the activity.
- Review the 3 states of matter.
- Tell the students that they'll learn more about each state of matter in our future science lessons.
- Allow students to share the examples that they came up with for each state of matter.
- Tell the students that when they go home today, they should try to find more examples of solids, liquids, and gases.

REFLECTION / NOTES

I find this "fundamentals" lesson important to lay the foundation for the rest of the unit. Even though, the standard of 3 types of matter is addressed at earlier grade levels, it is always best to start everyone on an even field to make sure that they have the basics for the subsequent lessons. Use this time (and the homework) for students to share real world connections to what the states of matter that they have already observed. Questions like: Is Jello a liquid? Are there other gases other than oxygen? should be encouraged. This curiosity only leads students to the scientific process of hypothesis -> experiment -> data -> conclusion.