Objective

By the end of this lesson, the student will be able to identify and describe the three states of matter: solids, liquids, and gases. They will understand how these states differ in terms of shape, volume, and particle movement.

Materials and Prep

- Paper
- Pencil or crayons
- A clear container (like a glass or jar)
- Water (for liquid demonstration)
- Air (demonstrated through blowing air into the container)
- Ice (or a small piece of solid if available)

Before the lesson, make sure to gather all materials and think about how to demonstrate each state of matter clearly using the items available.

Activities

- **State Sorting**

  Draw three large circles on a piece of paper. Label them 'Solid', 'Liquid', and 'Gas'. Ask the student to think of examples of each state of matter and draw or write them in the correct circle.

- **Container Experiment**

  Fill the clear container with water to demonstrate a liquid. Show how it takes the shape of the container. Then, blow air into the container to show how gas fills the space. Discuss how you can't see the gas but it's still there!

- **Ice Observation**

  If you have ice, show it to the student. Discuss how it is a solid and has a fixed shape. Let the ice sit out for a few minutes and observe how it changes into water (a liquid). Talk about how this is called melting!

Talking Points

- "What do you think a solid is? A solid has a shape that doesn't change!"
- "Can you think of something that is a liquid? A liquid takes the shape of its container!"
- "What about gas? Gas is all around us, but we can't see it!"
- "When we heat a solid, what happens? It can turn into a liquid!"
- "What happens when we freeze a liquid? It becomes a solid!"
- "Did you know that when ice melts, it turns into water? That's a change of state!"
- "Air is a gas, and it fills up space. Can you feel it when you blow?"