

UNIT OVERVIEW

The “***Matter***” unit focuses on the three states of matter as children complete different discovery activities. The “***Matter***” unit is divided into four sections. The first section contains a set of lesson plans for the teacher. Details are provided for the activities that the children participate in during each lesson. The second section provides a fact card on matter and twelve discovery cards. The majority of the lessons are centered around the discovery cards. The discovery cards enable the children to learn about different aspects of matter. The third section of this unit contains a student booklet in which children can record their findings and discoveries. The final section includes a card classification activity, a matter vocabulary match game, a book outline, and a science fair project planning outline that are used throughout the day-to-day lessons of the unit. In addition, other activities are included to reinforce what the children learn throughout the “***Matter***” unit.

A display of books about matter should be set up somewhere in the classroom. Children refer to these books as they complete the different activities about matter. They are also encouraged to read these books in their spare time and during silent reading.

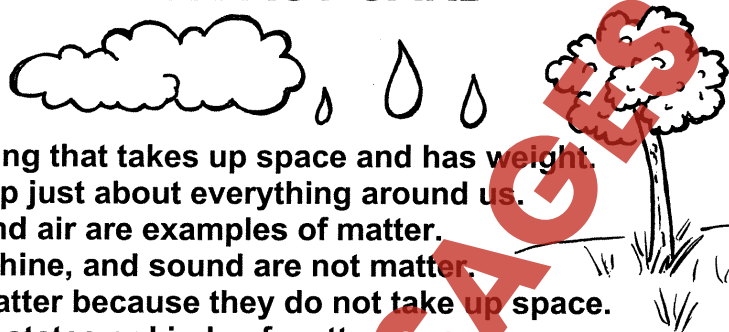
LEARNING OBJECTIVES

Throughout the unit on matter, children learn about:

- what matter is and is not
- molecules
- the three states of matter
- similarities and differences between solids and liquids
- how matter changes from one state to another
- the interactions of some solids and liquids
- solids that float in water
- solids that absorb liquids
- applying matter knowledge in daily life.

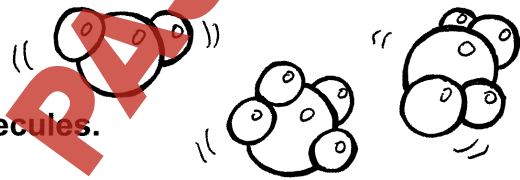
MATTER FACT CARD

MATTER



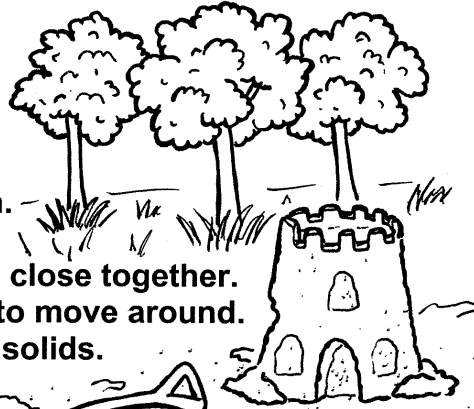
Matter is anything that takes up space and has weight. Matter makes up just about everything around us. Trees, water, and air are examples of matter. Shadows, sunshine, and sound are not matter. They are not matter because they do not take up space. There are three states or kinds of matter. The three states of matter are solids, liquids, and gases.

MOLECULES



All matter is made up of molecules. Molecules are little particles. Molecules join together to make solids, liquids, and gases. Molecules are always moving.

SOLIDS



Solids are one kind of matter. They take up space. Solids have a shape of their own. They keep their shape and size. The molecules in solids are very close together. The molecules have little space to move around. Trees and sand are examples of solids.

DISCOVERY CARD #5 MATTER HUNT

Discovery Question:

What solids, liquids, and gases are found around your classroom and school?

Materials:

student booklets

Steps:

1. Find the chart on the matter hunt in your student booklet.
2. Walk around your classroom and write down examples of solids, liquids, and gases in the correct columns.
3. When you are finished recording the solids, liquids, and gases in your classroom, walk around the inside of the school and then the outside of the school. Write down more examples of solids, liquids, and gases that you notice inside and outside of the school.
4. When the allowed time is up, go back to the classroom.
5. As a class, record all your findings.
6. Answer the questions in your student booklet.



DISCOVERY CARD #7 FREEZING ACTIVITY

Discovery Question:

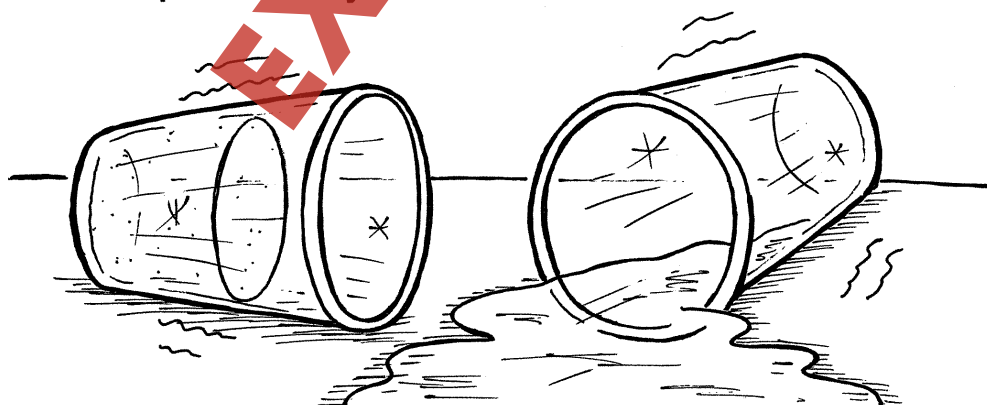
What happens when liquids are placed in the freezer?

Materials:

cooking oil, honey, orange juice, shampoo, water, five plastic cups, student booklets

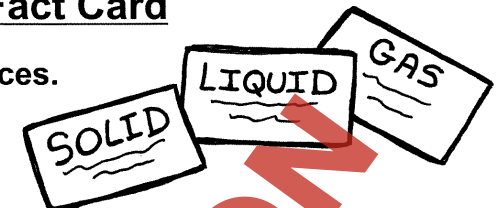
Steps:

1. Pour one material into each plastic cup. Fill the cups half-full.
2. Stand the cups in the freezer.
3. Wait an hour or until your teacher tells you that the time is up.
4. While you are waiting, complete an activity on matter or play the *Matter Vocabulary Match* game.
5. After an hour, take the cups out of the freezer. What do you see? What has happened? Answer the questions in your student booklet.



Matter Fact Card

A. Answer in complete sentences.



1. What is matter?

2. What are molecules?

3. What is a solid?

4. What is a liquid?

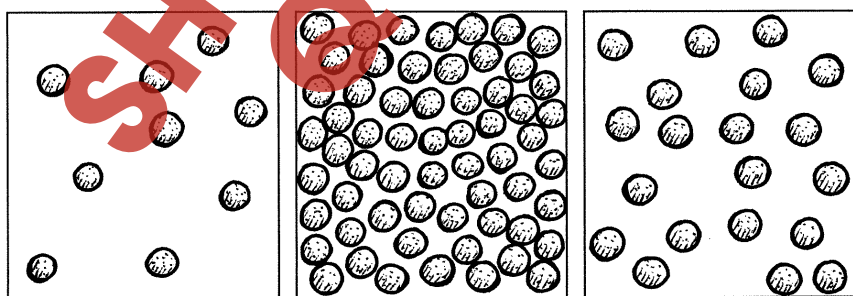
5. What is a gas?

B. Fill in each blank with a word from the box below:

- The three states of matter are _____, _____, and _____.
- All matter is made up of _____. Molecules are always _____.
- Solids have their own _____. Solids _____ their shape and size.
- Liquids take the shape of the _____ they are in. They keep their size but _____ their shape.
- Gases have no constant shape or size. They _____ around in different _____.

directions	solids	liquids	float
gases	container	change	moving
shape	keep	molecules	

C. Label the following boxes with 'solid', 'liquid', or 'gas':



SCIENCE FAIR PROJECT PLANNING OUTLINE

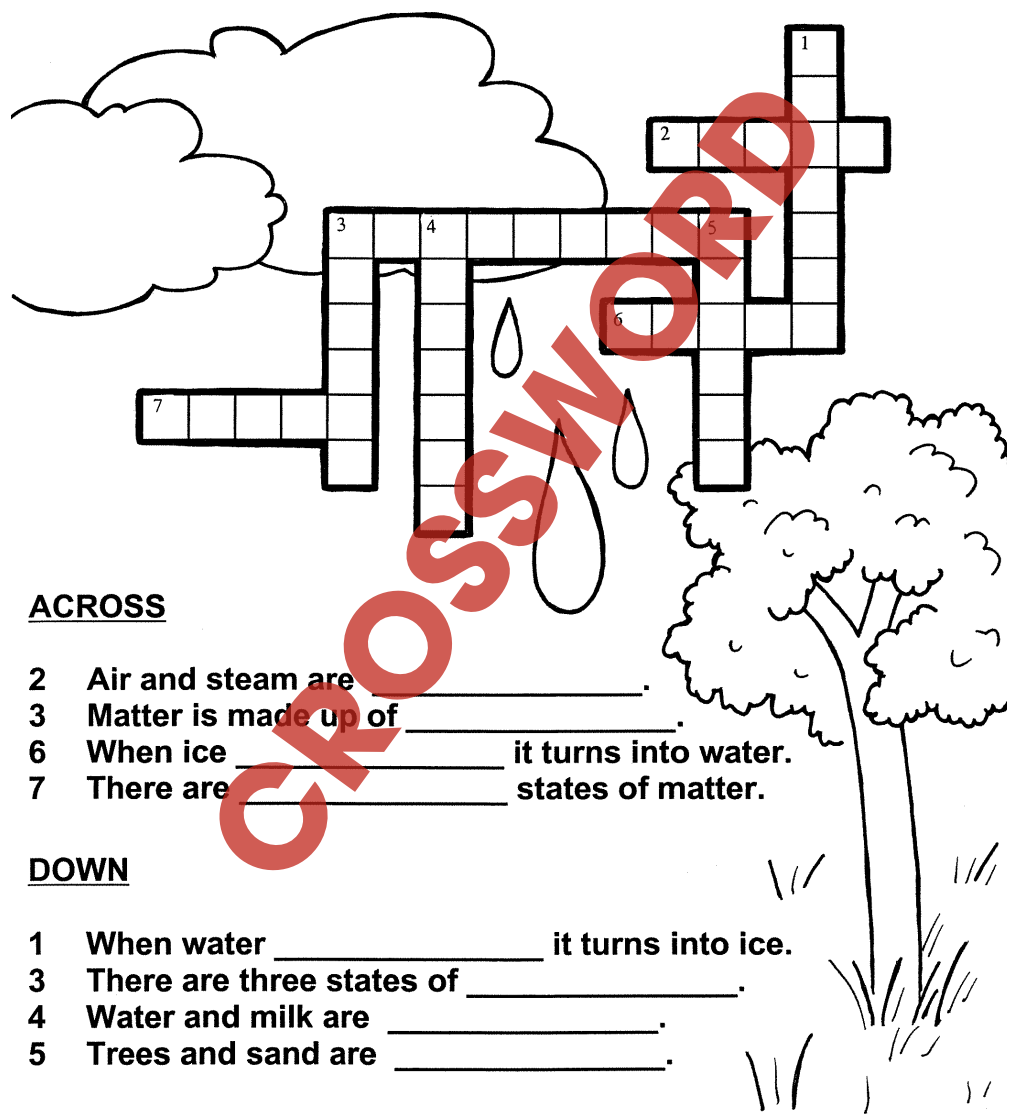
Discovery Question:

Materials:

Steps:

Name: _____

CROSSWORD PUZZLE



ACROSS

- Air and steam are _____.
- Matter is made up of _____.
- When ice _____ it turns into water.
- There are _____ states of matter.

DOWN

- When water _____ it turns into ice.
- There are three states of _____.
- Water and milk are _____.
- Trees and sand are _____.

Name: _____

UNIT TEST

A. Match the word to the correct definition by drawing a line from the word to the correct definition.

- | | |
|-----------|--|
| matter | little tiny particles |
| molecules | matter that keeps its size but changes its shape |
| solids | anything that takes up space and has weight |
| liquids | matter that has no constant shape or size |
| gases | matter that keeps its shape and size |

B. Print the word 'solid', 'liquid', or 'gas' beside each material.

- | | | | |
|--------|-------|-------|-------|
| tree | _____ | steam | _____ |
| oxygen | _____ | sugar | _____ |
| milk | _____ | water | _____ |
| honey | _____ | ice | _____ |
| air | _____ | sand | _____ |