

Unit 3. What's the Matter?

THREE TYPES OF MATTER

1 All things are made of matter. Matter is anything that **takes up space**.
Look at the things in your classroom. They are all made of **matter**. You
are made of matter, too.

5 There are three different **states** of matter. Solid is one state. Like all
matter, a solid takes up space and has **mass**. But only a solid has a **shape**
of its own. They do not change shape when they are moved from place
to place. A pencil and an eraser are both solids. Look around and find
things that are solids.



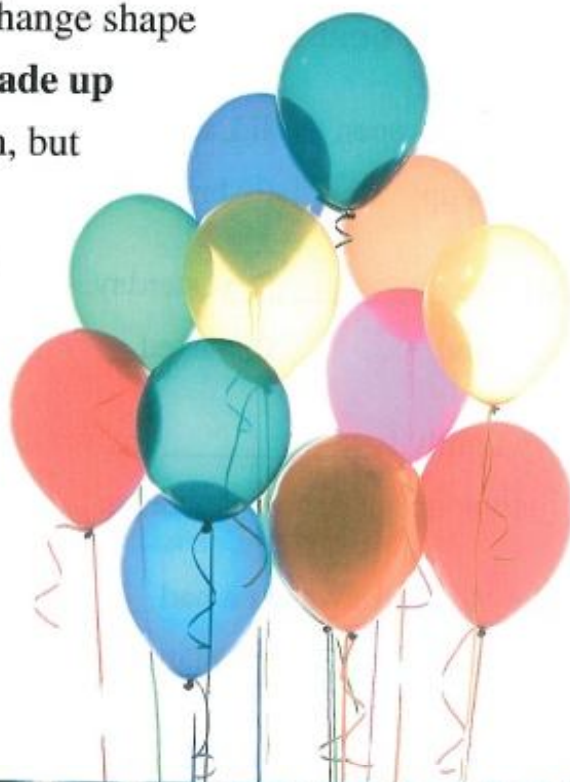
Liquid is another state of matter. Liquid takes up space and has mass. However, liquid can change shape. It takes the shape of its **container**: a glass, a cup, a bowl, a vase, etc. Milk, juice, and water are all liquids.

If you pour a liquid thing from a tall glass into a round pot, what shape will it be?



The third state of matter is gas. It takes up space and has mass. It does not have a shape of its own. Gas can change shape and size when it **spreads** out. Air is **made up** of gasses. You cannot see or taste them, but you can sometimes smell them. Air is everywhere. It can fill up a balloon or ball. What will happen to the air if the balloon or ball

blows up?



Vocabulary Build Up

A. Match the words to the correct definitions.

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|--------------|---|--|
| 1. take up | • | • the area within which everything exists |
| 2. space | • | • solids, liquids, and gasses |
| 3. matter | • | • to open something out or arrange it over a place |
| 4. state | • | • to fill an amount of space or time |
| 5. mass | • | • to form or be the parts of |
| 6. shape | • | • the condition of a person or thing |
| 7. container | • | • to get a hole in it and go flat |
| 8. spread | • | • what holds something else, such as a box or can |
| 9. make up | • | • the particular physical form of something |
| 10. blow up | • | • the amount or volume of matter |

B. Choose the best words to fill in the blanks.

- When you open the lid, the smell _____ out.
(a) fills up (b) brings (c) makes (d) spreads
- My tire _____ yesterday.
(a) found (b) tasted (c) spread (d) blew
- My family is _____ my parents, my brother, and I.
(a) took up (b) made up of (c) blew (d) looked around
- The old house was in a bad _____.
(a) space (b) matter (c) mass (d) state

Comprehension Check Up

A. Check True or False.

1. You are not made of matter. ☐ T ☐ F
2. Liquid does not have a shape of its own. ☐ T ☐ F

B. Choose the best answers.

1. Which of the following are all liquids?

(a) water, glass, vase, bowl	(b) tire, ball, pencil, eraser
(c) milk, juice, water, cup	(d) cola, coffee, lemonade, water
2. Which of the following is not made of matter?

(a) human	(b) cup	(c) love	(d) air
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3. What makes a solid different from the other two states?

(a) A solid has a shape of its own.	(b) A solid has one state of matter.
(c) A solid takes up space and has mass.	(d) A pencil and an eraser are solids.
4. Which of the following is true?

(a) Matter has two states.	(d) You can see gas all around.
(c) Liquid takes its container.	(d) Liquids take up space and have mass.

C. Write the best answers.

1. What is the title of the passage?




2. Where is air?

Reading Skill Up

Categorizing

Categorizing is putting people or things into groups with the same characteristics. You can understand the characteristics by categorizing.

Write correct sentences that tell about solid, liquid, or gas.

Example	Category	Characteristics
	Solid	
	Liquid	
	Gas	

- It has a shape of its own.
- It can fill up a tire or ball.
- Air is made up of it.
- It does not change its shape when it is moved.
- You cannot see it, but you can sometimes smell it.
- It takes the shape of its container.
- A pencil and an eraser are kinds of it.
- You can pour it from one container to another.

Story Summary Up

Complete the summary by filling in the blanks.

container everywhere fill gas matter shape space spreads

There are three states of _____: solid, liquid, and _____. They all take up _____ and have mass. But only a solid has a _____ of its own. Liquid, like milk and juice, takes the shape of its _____. Gas _____ out. You can not see it and it is _____. It can _____ up a tire or a ball.

Think and Act Out

Write or say your own opinions.

- What will happen to the air in a tire when it blows up?
- When you move a ball from one place to another, what will happen to it?