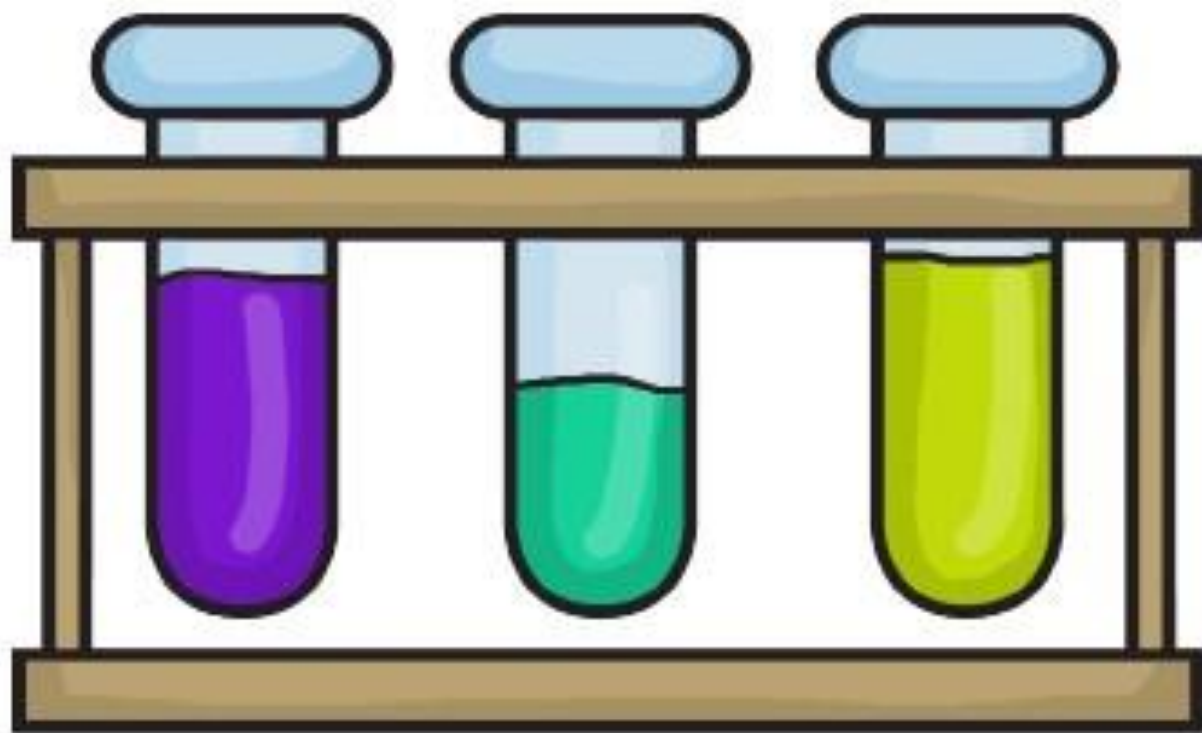


# MATTER AT HOME

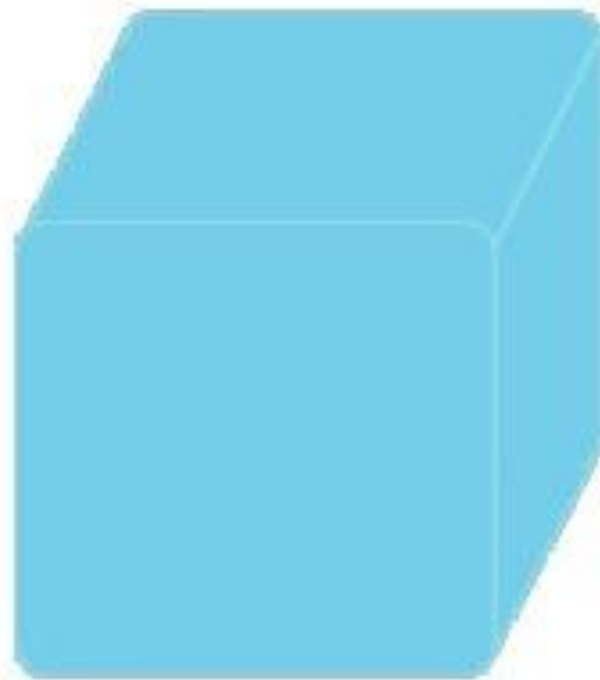


# Matter



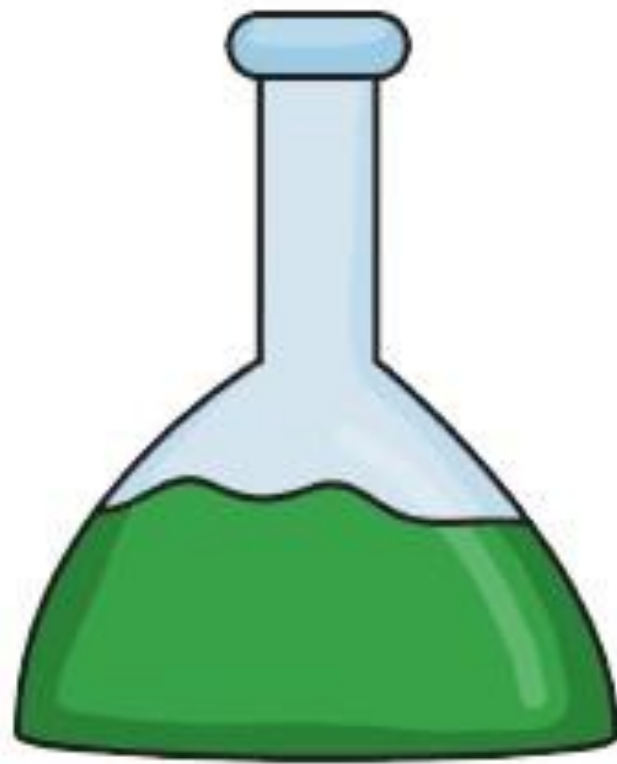
Matter is anything that has a mass and takes up space.

# Solid



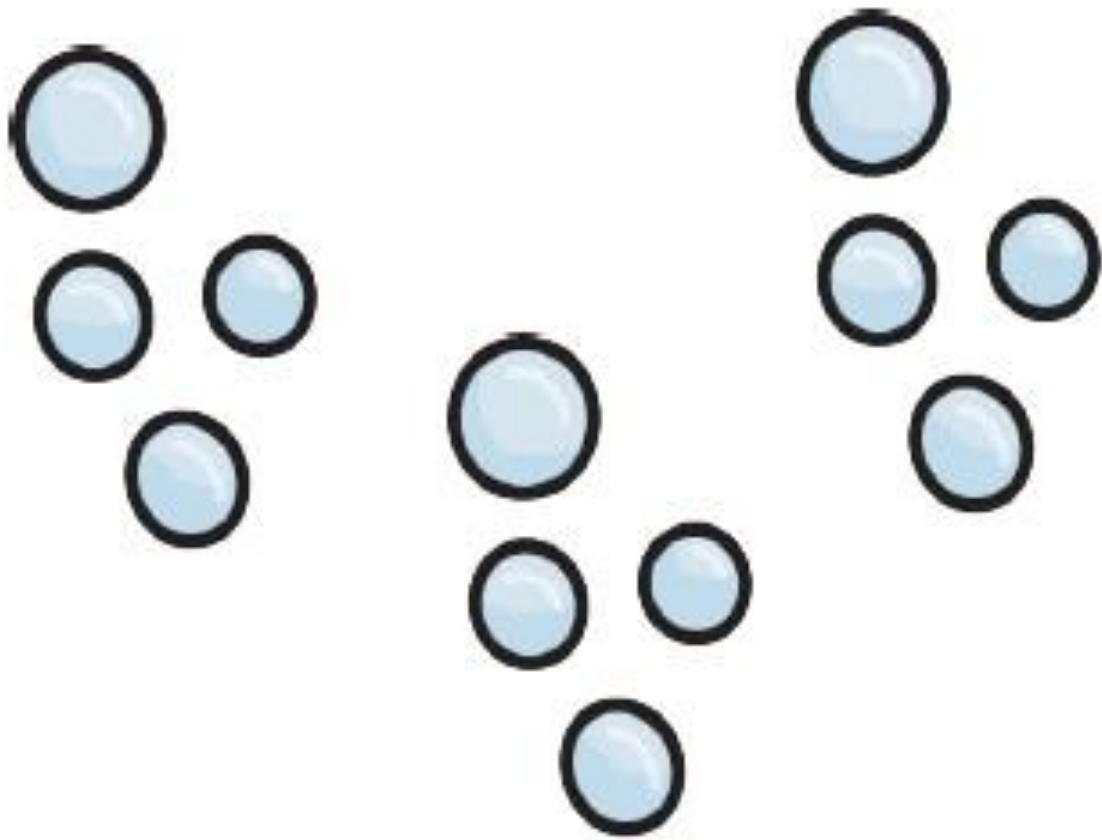
A solid is a state of matter. Solids maintain their shape and cannot be poured.

# Liquid



A liquid is a state of matter. A liquid can be poured and takes the shape of the container they are in.

# Gas



A gas is a state of matter. A gas does not have its own shape and it flows freely on its own.



# Move Like a State of Matter



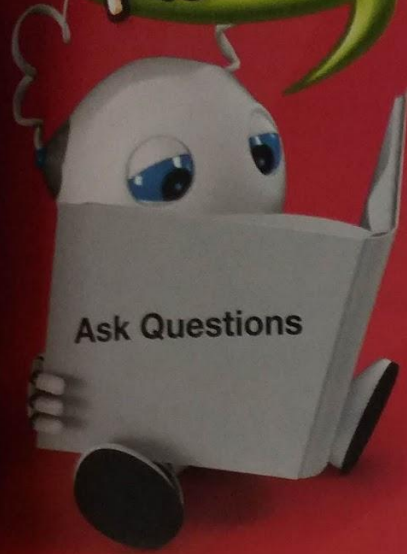
First and Second Grade Science

**SOLIDS  
AND  
LIQUIDS**





LET'S  
READ



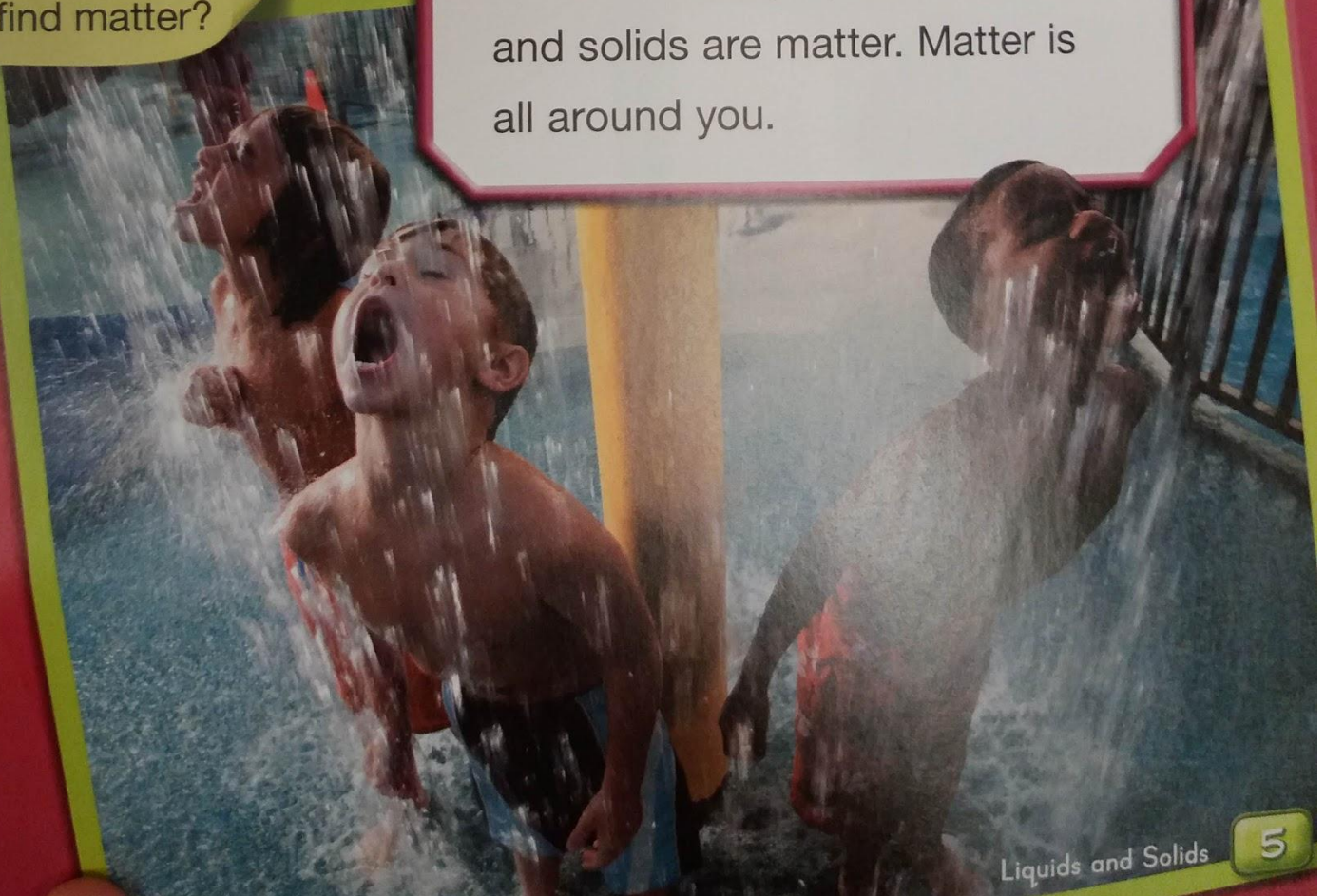
# What Are Liquids and Solids?

by Adrienne Mason

Ask questions to help you understand. Does the text make sense? Where can you find matter?

## Matter All Around You

Everything in our world is made up of matter. **You are matter.** A toy boat is matter. Water is matter. Matter takes up space. Liquids and solids are matter. Matter is all around you.



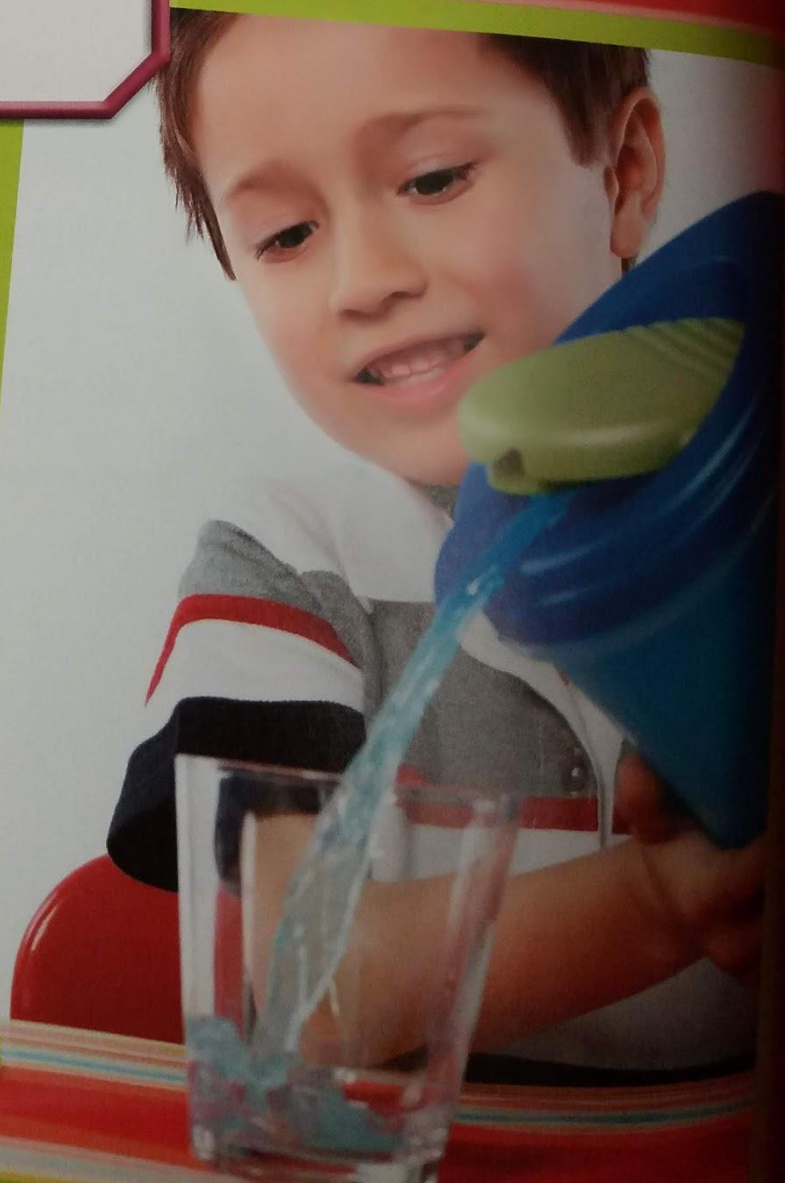
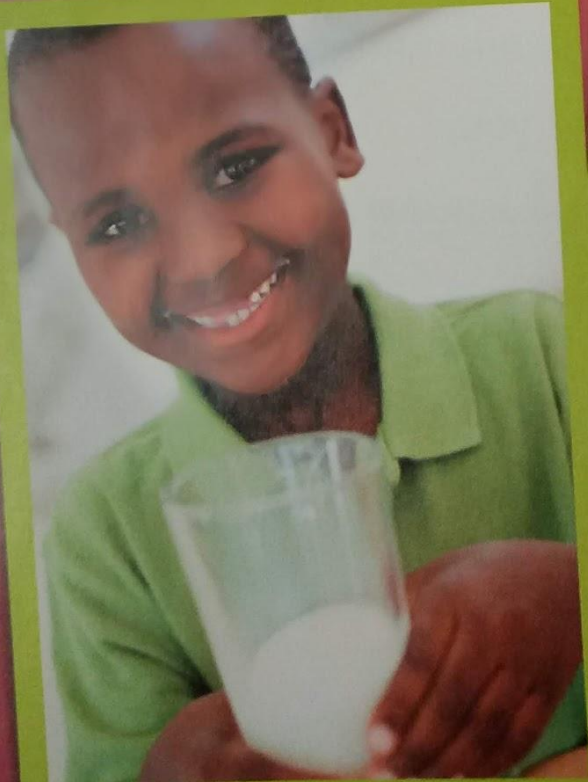


## What Are Liquids?

Liquids have no shape of their own. Water is a liquid. Honey and milk are liquids, too. Liquids change shape easily. When you pour liquid into a container, it takes the shape of the container—a glass, a bottle, or a pail.

Liquids can be thin and runny or gooey and thick. They can be cold or hot.

Ask questions to connect to what you know. What liquids have you used today?



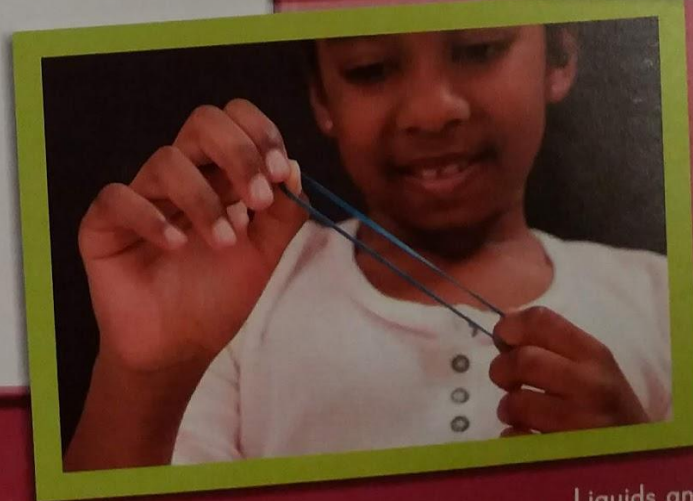




## What Are Solids?

Solids have their own shape. Rocks are solids. Hats and skipping ropes are solids, too. Solids do not change shape easily. Some solids will change shape when you push or pull them. You can stretch an elastic band. When you let it go, it takes its own shape again.

Ask questions to get more information. What other solids might change shape when you push or pull them?





## Melting

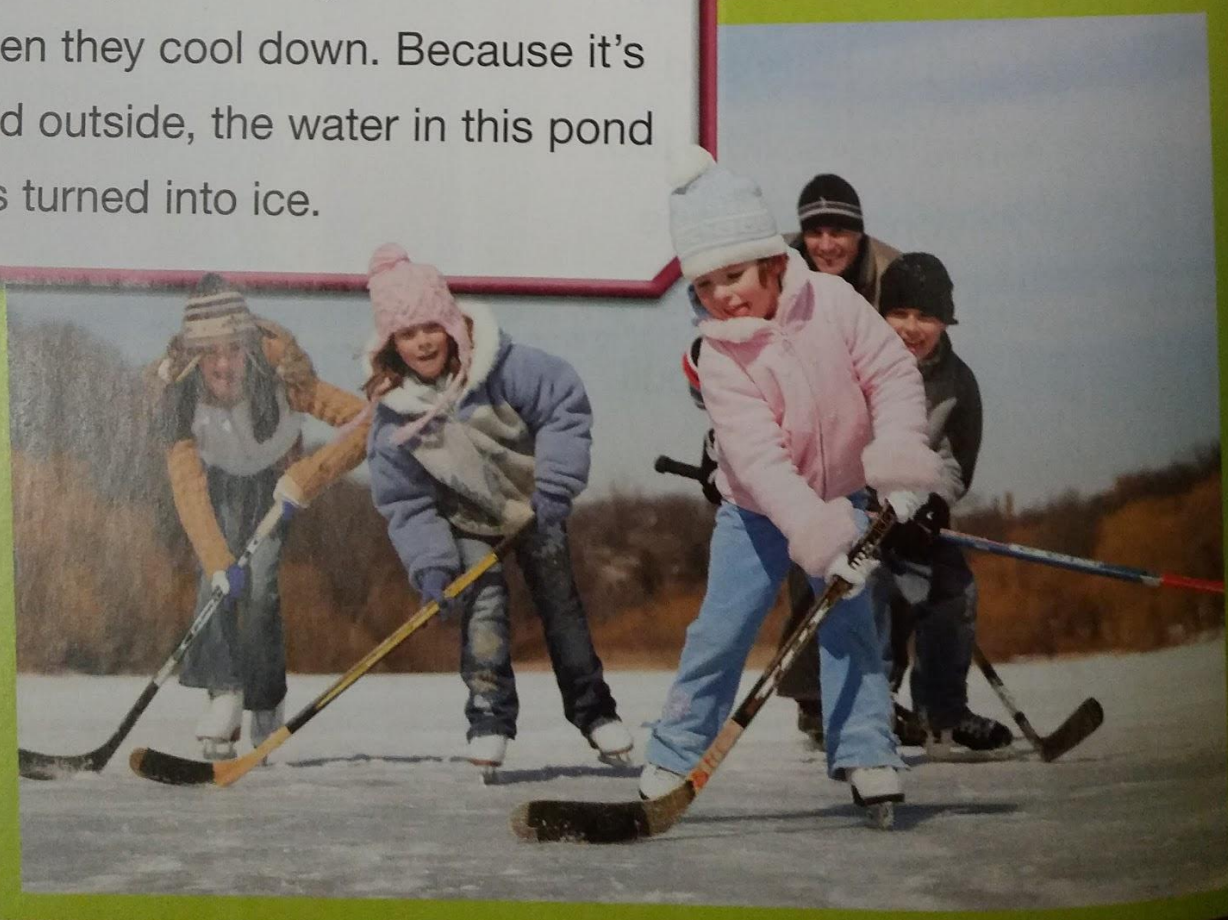
Some solids change into liquids when they warm up. When a solid snowflake lands on your warm tongue, it melts and changes into liquid water.



Ask questions to connect to what you know. When have you seen solids change when they warm up?

## Freezing

Some liquids change into solids when they cool down. Because it's cold outside, the water in this pond has turned into ice.



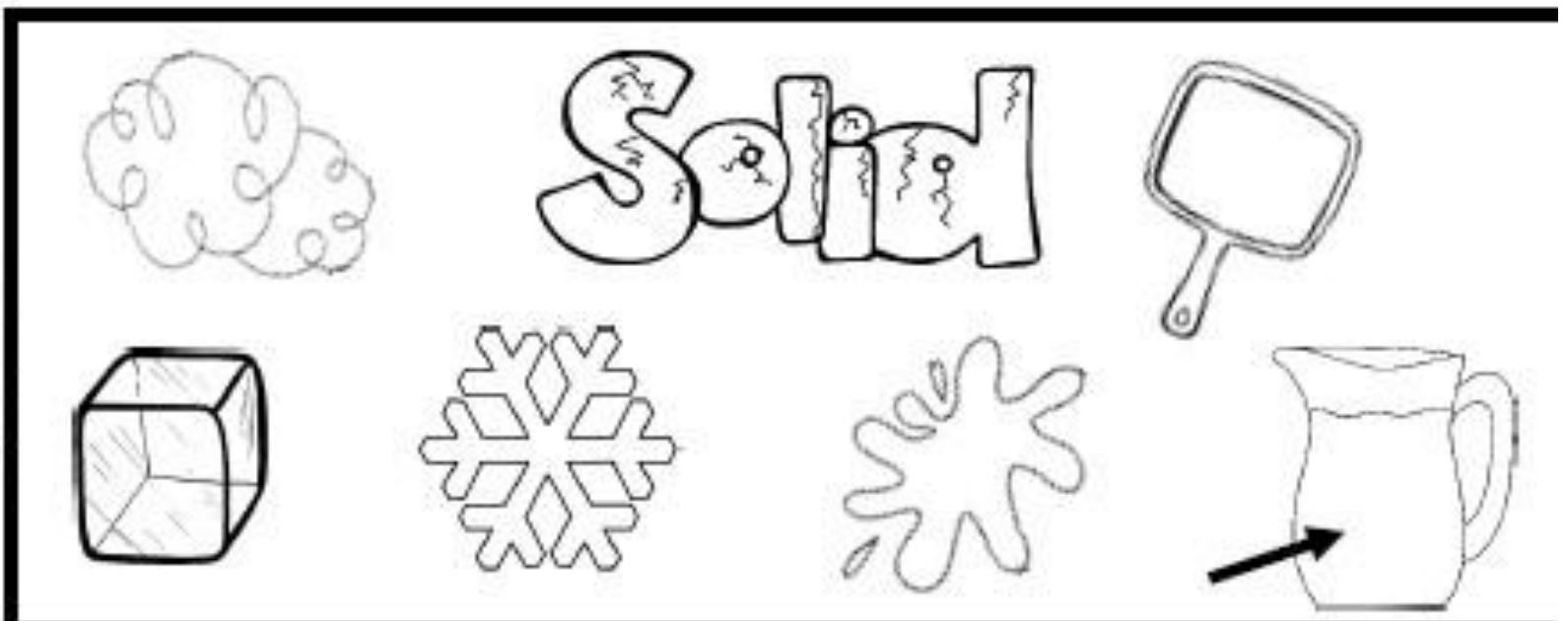


Name: \_\_\_\_\_

# States of Matter

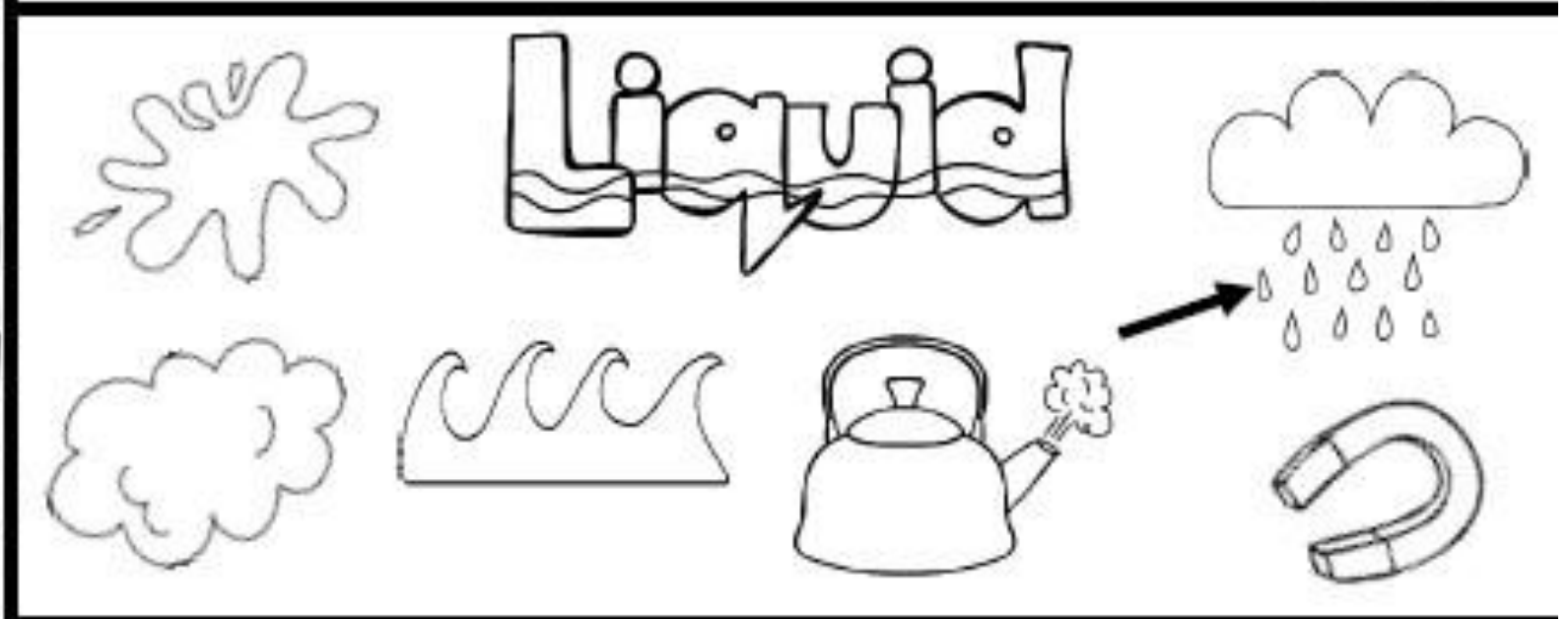
Color the objects that are a solid, liquid or gas in the correct boxes. Draw an "X" on the objects that are not.

**Solid**



This section is titled "Solid" in large, bubbly letters. It contains six line drawings: a cloud, a cube, a snowflake, a splash, a frying pan, and a pitcher. An arrow points to the pitcher.

**Liquid**



This section is titled "Liquid" in large, bubbly letters. It contains six line drawings: a splash, a cloud, a wave, a kettle with steam, a cloud with rain, and a horseshoe magnet. An arrow points to the cloud with rain.

**Gas**



This section is titled "Gas" in large, bubbly letters. It contains five line drawings: a snowflake, a kettle with steam, an ice cream cone, a cup with steam, and a cube. Arrows point to the kettle with steam and the cup with steam.

# What Happens When...

YOU DO DIFFERENT THINGS TO LIQUIDS AND SOLIDS?

## LIQUIDS

1.) When you POUR a liquid it:

---

---

2.) When it gets colder, a liquid will:

---

and become a:

---

## SOLIDS

1.) when you BREAK a solid it:

---

---

2.) When it gets hotter, a solid will:

---

and become a:

---

1.) I predict that when Ms. M hits the ice, it will:

---

2.) My prediction was CORRECT / INCORRECT.

---



## Solids and Liquids in the Natural Environment

The natural environment includes things that are not made by humans such as forests. Make a list of solids and liquids that can be found in the natural environment.

Write some examples of solids:

Write some examples of liquids:

## Solids and Liquids in the Built Environment

The built environment is made up of things that are built by humans such as schools. Make a list of solids and liquids that can be found in the built environment.

Write some examples of solids:

Write some examples of liquids:



## Solids and Liquids Menu

Cut and paste the menu items into either solids or liquids.

Solids

Liquids

Hot dog

Milk

Chocolate Bar

Orange juice

Cookie

Water

Apple

Maple Syrup

Banana

# Investigating Liquids and Solids

When solids mix with liquids a MIXTURE is formed. When a solid dissolves in a liquid it forms a SOLUTION. This happens because the solid is SOLUBLE.

Let's test to see what solids will dissolve in a liquid. It is dissolved when the solid is mixed with the liquid and the solid becomes part of the liquid. The solid will mix completely with the liquid. The solids are just suggestions and you can use what you wish from home. The liquid can be water.

| Solid             | Prediction<br>Yes or No | Did it dissolve?<br>Yes or No |
|-------------------|-------------------------|-------------------------------|
| salt              |                         |                               |
| oatmeal           |                         |                               |
| molasses          |                         |                               |
| cake sprinkles    |                         |                               |
| hot chocolate mix |                         |                               |
| pepper            |                         |                               |

# Buoyancy



Buoyancy is the ability of an object to float in water or air.





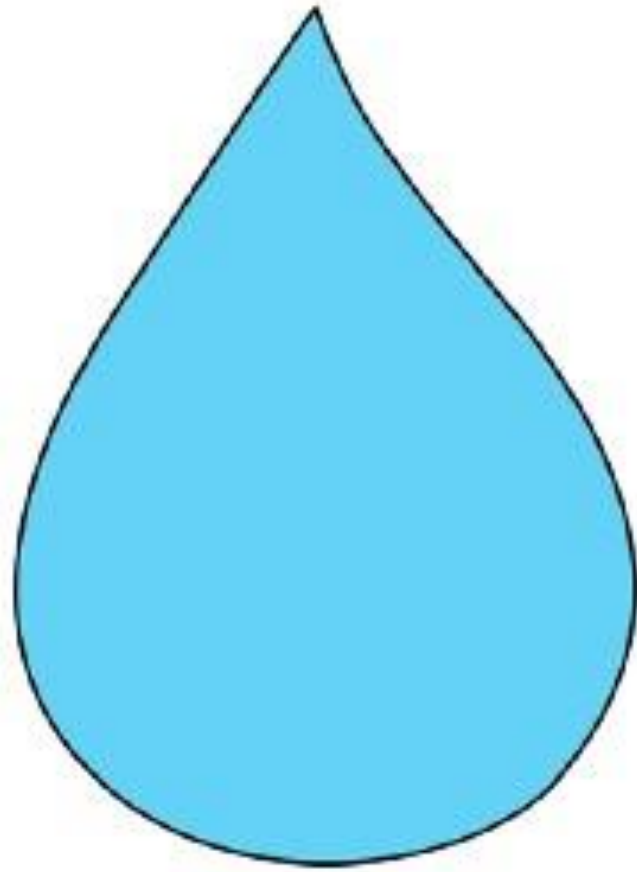
### **SINK OR FLOAT?**

**When a solid floats, it is BUOYANT. Boats, rafts and other things on water are buoyant, however, not all solids float.**

**Predict if the solids listed below will sink or float. Test the solids below in water. You can use whatever materials you wish.**

| Solid  | Prediction | Observation |
|--------|------------|-------------|
| marble |            |             |
| coin   |            |             |
| yarn   |            |             |
| paper  |            |             |
| button |            |             |

# Absorption



Absorption is the process of one thing becoming part of another thing.

123

SESAME STREET

absorb



PODCAST





## **SOAK IT UP!**

**What a mess... There is water everywhere! How will you clean it up? Materials that soak up liquids are **ABSORBENT**. Not all solids can absorb liquids. Some solids repel liquid. **REPEL** means to push away.**

**Circle what you think will happen with the following solids. Test them after.**

| <b>Solid</b> | <b>Prediction</b> |       | <b>Observation</b> |        |
|--------------|-------------------|-------|--------------------|--------|
| paper        | absorb            | repel | absorbs            | repels |
| sponge       | absorb            | repel | absorbs            | repels |
| plastic      | absorb            | repel | absorbs            | repels |
| tin foil     | absorb            | repel | absorbs            | repels |
| cloth        | absorb            | repel | absorbs            | repels |

**What happened?**

**Rank the solids from most absorbent to least absorbent.**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

# Liquids Race

Use liquids of different flow (ketchup, oil, water, syrup) and see which ones flow faster and slower. You can simply take a piece of thicker cardboard, hold it at an angle and pour a little of the liquid from the top.

| Liquid   | Prediction | Fast/Slow | Rank (fastest to slowest) |
|----------|------------|-----------|---------------------------|
| Water    |            |           |                           |
| Oil      |            |           |                           |
| Molasses |            |           |                           |
| Ketchup  |            |           |                           |

## Do All Liquids Mix?



Try it out yourself...with Mom or Dad!

## Which Liquid Flows Faster?

Liquids all flow. However some liquids flow faster than others. This is because some liquids are very thick and some liquids are very runny.

Put a drop of each liquid at the top of the tray. Tip the tray. Record your observations.

Which liquid will move the fastest?

---

Why?

---

---

Which liquid will move the slowest?

---

Why?

---

---



# States of Water



- **liquid**: flows and takes the shape of any container; ex. drinking water, pools, oceans

- **solid**: called ice, turns to ice by freezing

- **gas**: called water vapour, turns into a gas when heated; ex. boiling a pot of water

ALL ABOUT

# Solid and Liquid WATER

AND HOW IT CHANGES FROM ONE TO THE OTHER

**LIQUID**

Water

**SOLID**

Water

## Key Properties

- 1.) Liquid water can be \_\_\_\_\_.
- 2.) Liquid water takes the \_\_\_\_\_ of its container.
- 3.) Liquid water will \_\_\_\_\_ when it is below 0 C and become \_\_\_\_\_.

## Key Properties

- 1.) Solid water (ice) \_\_\_\_\_ be poured.
- 2.) Solid water (ice) \_\_\_\_\_ take the shape of its container.
- 3.) Solid water (ice) will \_\_\_\_\_ when it is above 0 C and become \_\_\_\_\_.

Solid water (ice) **MELTS** to make liquid water

Liquid water **FREEZES** to make solid water (ice)

## WORD BANK

doesn't      does      water      freeze  
can't      melt      ice      water

## Hazardous Household Product Symbols

Some matter is not safe for us to touch with our hands, to smell or to taste. These substances have symbols that tell us that they are not safe for us. Take a look at the symbols below.



This symbol means that the product is flammable. This means that if the product is near heat, flames or sparks the product will catch on fire.



This symbol means that the product is poisonous. This means that if a person ingests the product, it will cause illness or seriously harm the individual.



This symbol means that the container that the product is in or sometimes even the product itself is explosive. This means that if the container or product is smashed or dropped, it could explode.



This symbol means that the product is corrosive. This means that if the product gets on the skin of a person or if the person ingests the product, it will burn the skin, eyes, throat, or stomach.



## Hazardous Household Product Symbols

Write what each symbol means in the space provided.



Use the word bank below to fill in the blanks.

If the symbol is in an octagon, means the \_\_\_\_\_ is dangerous.

If the symbol is in an upside down triangle, means the \_\_\_\_\_ is dangerous.

Word Bank

product

container

# Extra Video Resources



**Magic School Bus: Season 4 Episode 1- Meets Molly Cule**  
(Can be found on Netflix)