

Do your Investigation.

3. Follow your steps.

Collect and record data.

4. Fill in the chart.

Tell your conclusion.

5. Why did the seed look bigger?



Handwriting practice lines consisting of a solid blue top line, a dashed blue middle line, and a solid red bottom line.

6. Did you see roots or leaves first?

Handwriting practice lines consisting of a solid blue top line, a dashed blue middle line, and a solid red bottom line.

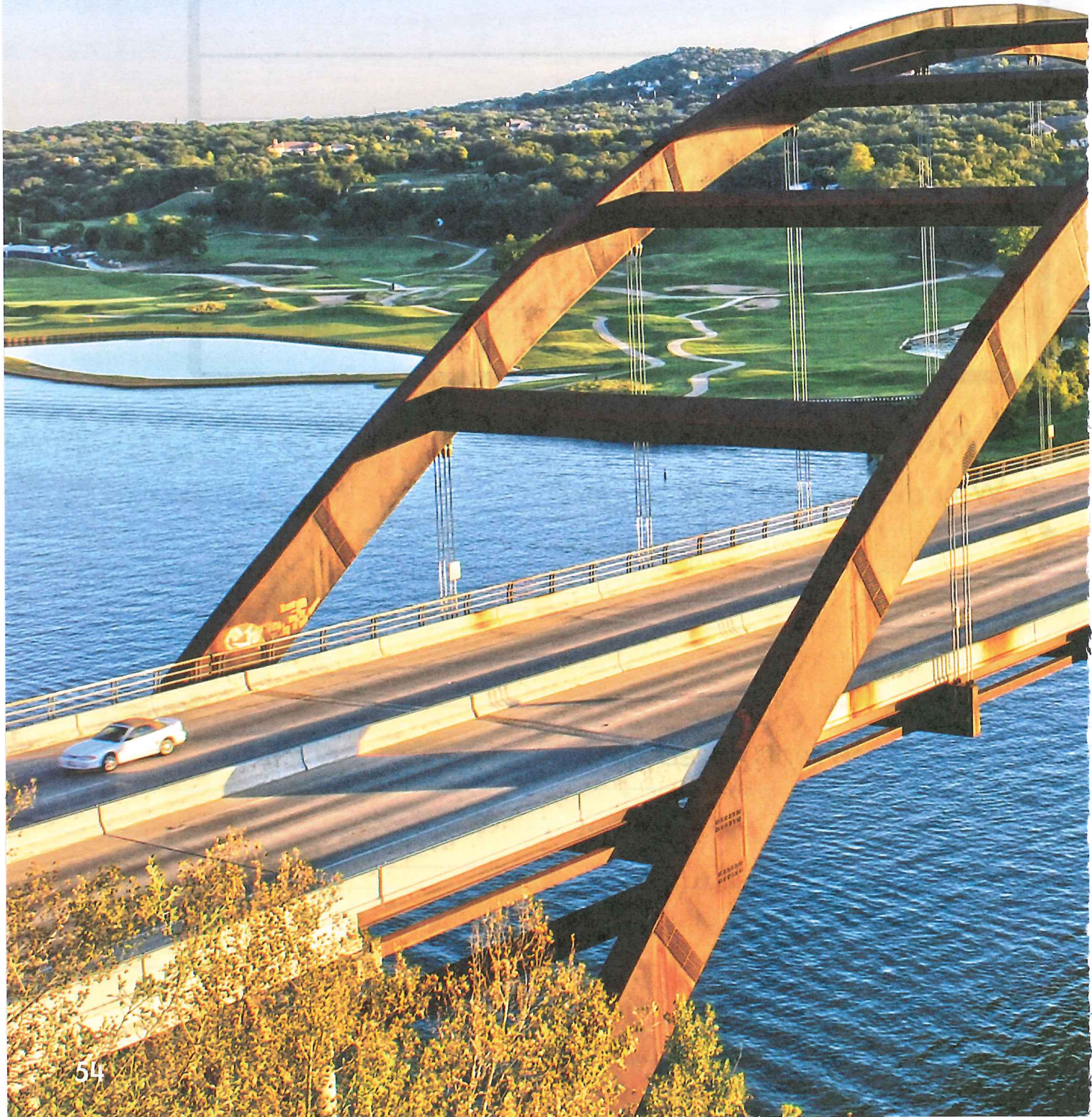
Texas



Unit

B

Physical Science





Texas Essential Knowledge and Skills

Content TEKS

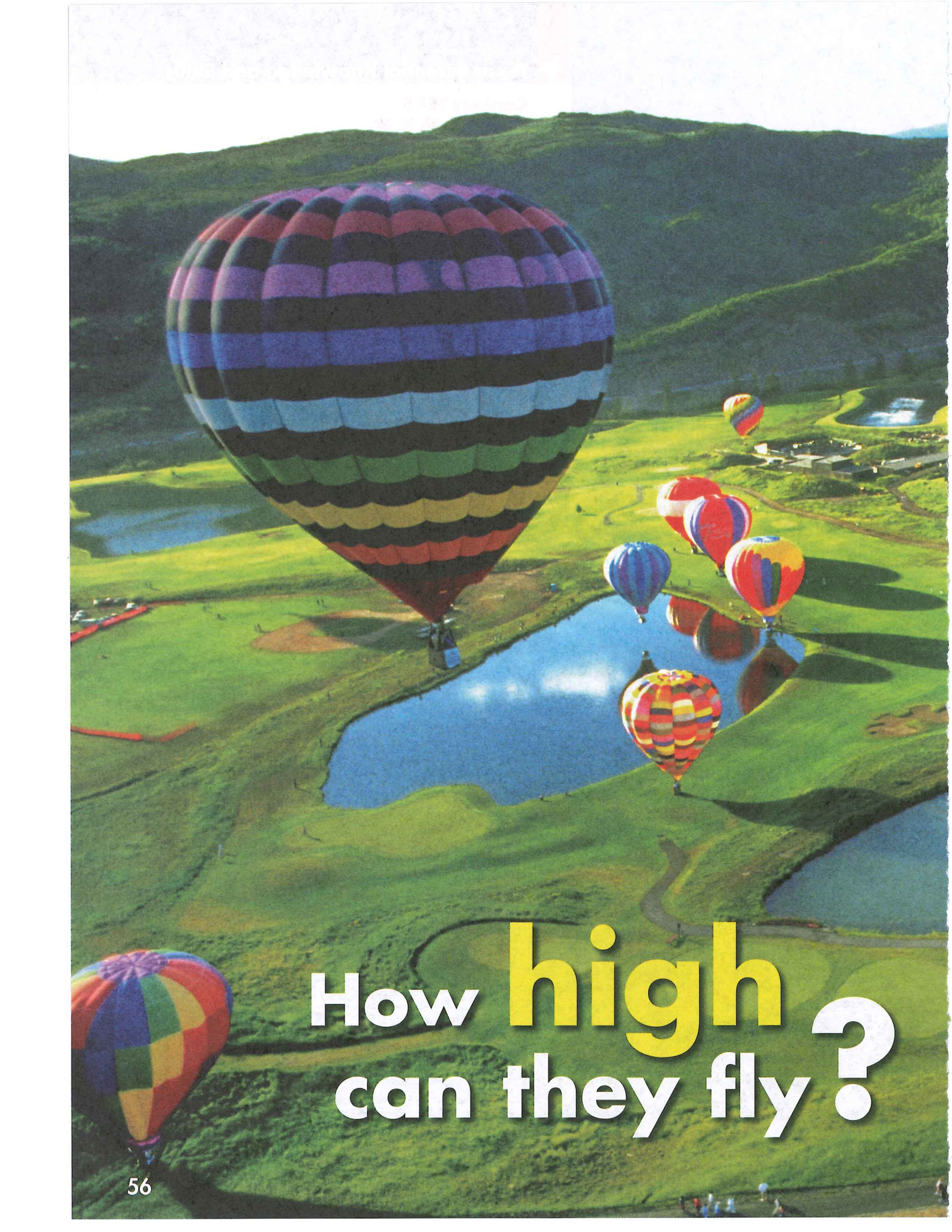
Matter: 5A, 5B, 5C, 5D

Energy, Motion, and Force: 6A, 6B, 6C, 6D

Process TEKS

1A, 1C, 2A, 2B, 2C, 2D, 2E, 2F, 3B, 4A





How **high**
can they fly ?



Matter

Lesson 1 What are some properties of matter?

Lesson 2 What are solids, liquids, and gases?

Lesson 3 What are some ways matter can change?

Lesson 4 How can cooling and heating affect matter?

Lesson 5 How can you combine materials?



What is matter?

Tell what you think makes these balloons fly.



Texas Essential Knowledge and Skills

TEKS 5A Classify matter by physical properties, including shape, relative mass, relative temperature, texture, flexibility, and whether material is a solid or liquid. **5B** Compare changes in materials caused by heating and cooling. **5C** Demonstrate that things can be done to materials to change their physical properties such as cutting, folding, sanding, and melting. **5D** Combine materials that when put together can do things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties.

Process TEKS: 1A, 2B, 2C, 2D, 2E, 3B, 4A



Inquiry Warm-Up

TEKS 5B, 1A, 2B, 2C, 2D, 2E

What is the temperature?

- 1. Put the thermometer in the cup of ice water.
- 2. **Observe** Take the temperature every 10 minutes.
- 3. **Record** your observations in the chart.

Materials

clear plastic cup with ice water



thermometer

Inquiry Skill

When you collect and record data, you show what you **observe**.

Temperature

First measurement	Second measurement	Third measurement	Fourth measurement

Explain Your Results

- 4. **Communicate** What happens to the temperature?



- 5. How do the contents of the cup change?



Texas Safety
LAB RULES

Use science tools carefully. Clean up spills.

Focus on Draw Conclusions

You will practice the reading skill **draw conclusions** in this chapter. You draw conclusions when you decide about something you see or read.

A Hot Day

You are playing outside on a hot day. You bring a glass of ice water with you to drink. After a while, you notice that the ice is gone.



Practice It!

Write what you think happened to the ice.

I know

It is a
hot day.



My conclusion

A set of handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line. A small pencil icon is positioned at the start of the top line. The lines are intended for writing a conclusion.



What are some properties of matter?



I will know TEKS 5A

I will know that I can classify matter by its physical properties. (Also **2D**)

Vocabulary

matter
property
thermometer

Corpus Christi, Texas

Connect to

Math

 **Math TEKS 4C**

Scientists measure temperature. They use math to compare temperatures.

High temperature in Corpus Christi:

27° Celsius (81°F) on Saturday

24° Celsius (75°F) on Monday

How much warmer was Corpus Christi on Saturday? Subtract to find out.

$$\begin{array}{r}
 27^{\circ} \text{ Celsius} \\
 - 24^{\circ} \text{ Celsius} \\
 \hline
 \text{Celsius}
 \end{array}$$



Saturday was _____ degrees Celsius warmer.

Compare high temperatures on 2 days where you live. Tell which day was warmer.



Quick Lab

TEKS 5A, 2D

How can you classify matter?

- 1. **Classify** the objects as metal or nonmetal.
- 2. Name something that is metal and flexible.



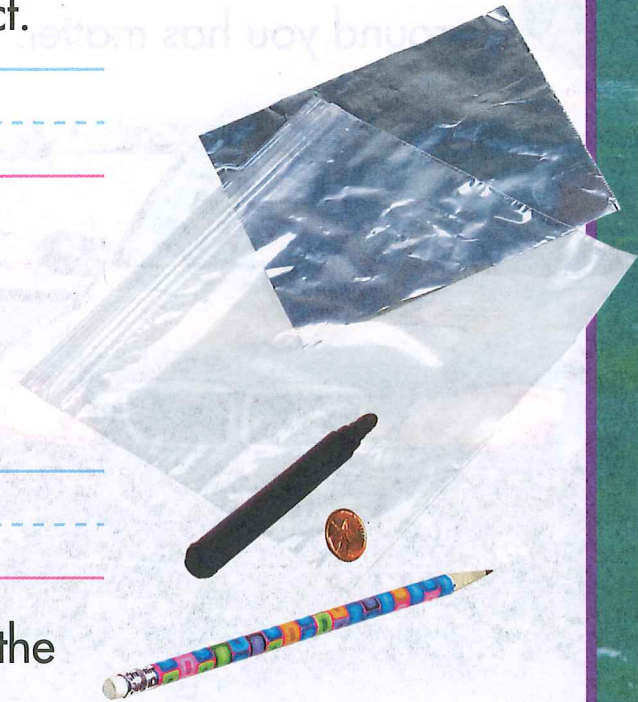
- 3. Name a flexible, nonmetal object.

Explain Your Results

- 4. **Infer** Are all metal objects flexible? Explain.

- 5. What is another way to classify the objects?

Materials



Matter

Everything you see around you is made of matter. **Matter** is anything that takes up space and has mass. Mass is the amount of matter in an object. A car takes up space and has mass. A car is made of matter.

Some things you cannot see are made of matter. The air around you has matter.

The cars and the bicycle are made of matter.



The truck has mass.



The car has mass.



The bicycle has mass.

You can compare the masses of objects. Some things have more mass than other things. The truck has lots of mass. The truck has more mass than the car. The truck's mass is greater than the mass of the car.

Draw Conclusions The car has more mass than the bicycle. Is the truck's mass greater than the bicycle's mass? **Explain.**



Handwriting practice lines consisting of a solid blue top line, a dashed blue middle line, and a solid red bottom line.

Properties of Matter

Different kinds of matter have different properties. A **property** is something about an object that you can observe with your senses. You can describe matter by telling about its properties. Mass is a property of matter. Weight is a property of matter too. Weight is how heavy or light something is. Mass and weight are related. The more mass an object has, the more it weighs.

Find two objects in your classroom.

Use a pan balance.

Put one of the objects in each pan.

Tell which one has a greater mass.

Tell which one weighs more.

The tape is sticky.



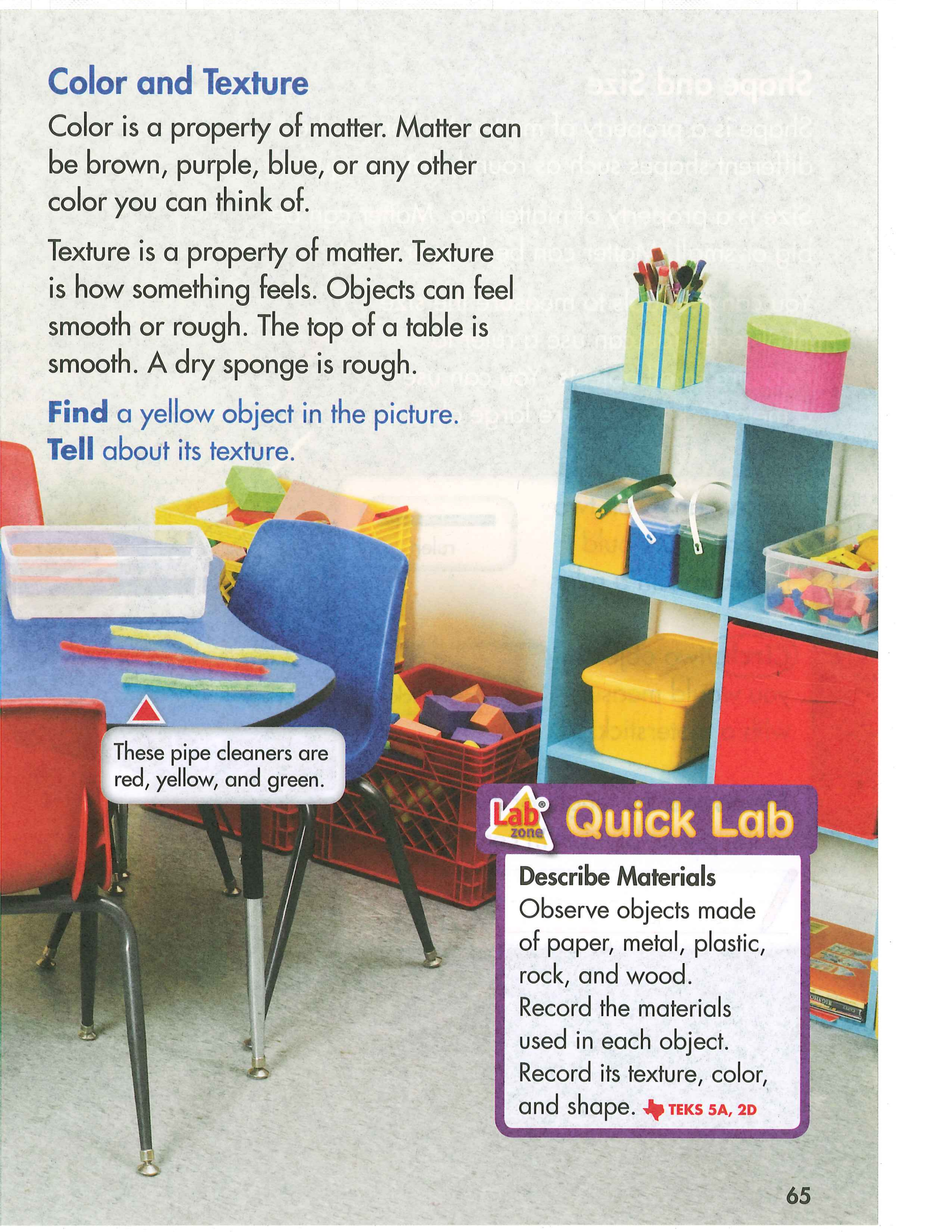
Color and Texture

Color is a property of matter. Matter can be brown, purple, blue, or any other color you can think of.

Texture is a property of matter. Texture is how something feels. Objects can feel smooth or rough. The top of a table is smooth. A dry sponge is rough.

Find a yellow object in the picture.

Tell about its texture.



These pipe cleaners are red, yellow, and green.



Quick Lab

Describe Materials

Observe objects made of paper, metal, plastic, rock, and wood.

Record the materials used in each object.

Record its texture, color, and shape.  **TEKS 5A, 2D**

Shape and Size

Shape is a property of matter. Matter can be different shapes such as round, flat, or square.

Size is a property of matter too. Matter can be big or small. Matter can be long or short.

You can use tools to measure the size of objects. You can use a ruler to measure small objects. You can use a meterstick to measure large objects.

Draw an **X** on two objects you would measure with a ruler.



ruler

Circle two objects you would measure with a meterstick.



meterstick

Measure the length of the picture of the picnic blanket in centimeters.



cm

Flexibility

Flexibility is a property of matter. Some matter can bend without breaking. This matter is flexible. You can fold the beach towels. The beach towels are flexible. Some matter cannot bend. This matter is not flexible. The bicycle helmet is not flexible.

Name something in the picture that is flexible.

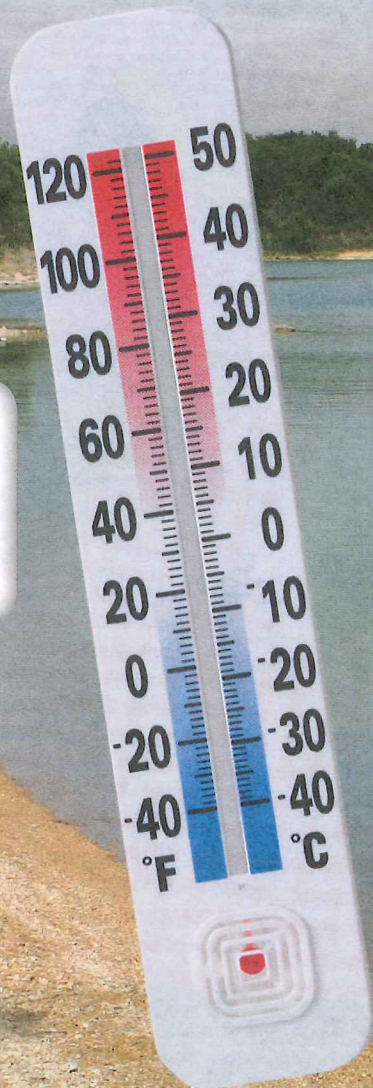
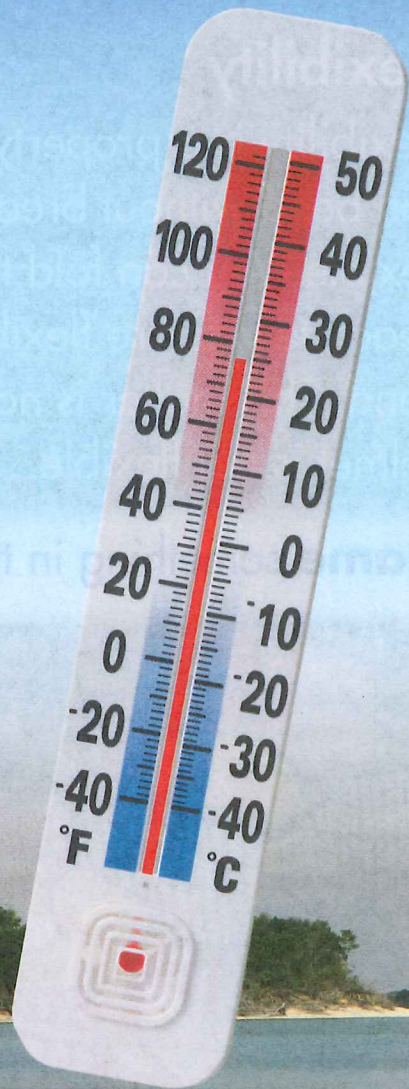


Temperature

Temperature is a property of matter. It tells how hot or cold something is.

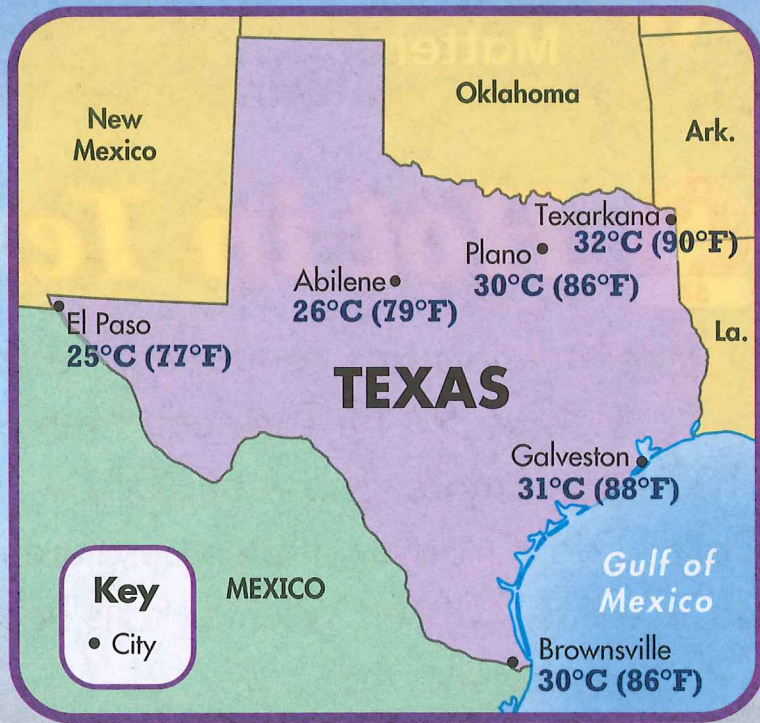
A **thermometer** is a tool that measures temperature. A thermometer can measure the temperature of the air. The red liquid in a thermometer goes up when it is getting warmer. The red liquid goes down when it is getting colder. The number next to the top of the red liquid is the temperature.

Fill in the thermometer to show how 5° Celsius (41° F) would look.




Comparing Temperatures

You can compare temperatures. Look at the map of Texas. Find Plano. Plano's high temperature was 30° Celsius (86° F). On the same day, Abilene had a high temperature of 26° Celsius (79° F). Abilene's high temperature was 4° Celsius lower than Plano's high temperature.



Complete the chart. **Write** the names of the cities in the chart.

Temperature Lower than 30° C	Temperature at 30° C	Temperature higher than 30° C
 <hr/> <hr style="border-top: 1px dashed;"/> <hr/>	<hr/> <hr style="border-top: 1px dashed;"/> <hr/>	<hr/> <hr style="border-top: 1px dashed;"/> <hr/>
<hr/> <hr style="border-top: 1px dashed;"/> <hr/>	<hr/> <hr style="border-top: 1px dashed;"/> <hr/>	<hr/> <hr style="border-top: 1px dashed;"/> <hr/>



Hot in Texas

Summertime in Texas can be hot. Temperatures can soar to 32° Celsius (90°F). They can even reach 38° Celsius (100°F) and more. The year 2011 was especially warm. Dallas had 71 days with temperatures of at least 38° Celsius (100°F). Wichita Falls had 100 days with temperatures that high.

The thermometer on this building shows a high temperature reading.



How many more very hot days did Wichita Falls have than Dallas had?

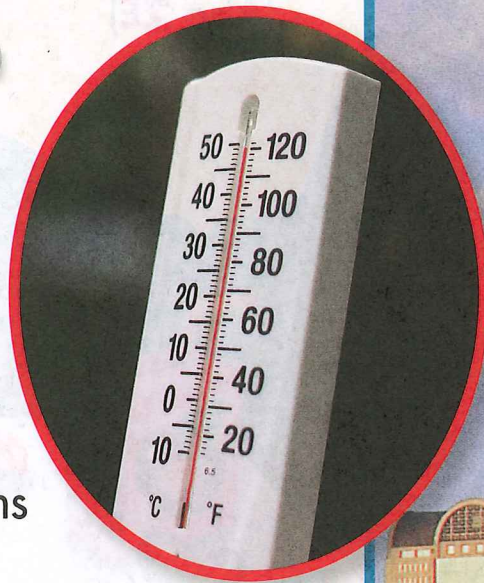
$$\begin{array}{r}
 100 \text{ days of high heat in Wichita Falls} \\
 - \quad 71 \text{ days of high heat in Dallas} \\
 \hline
 \end{array}$$





Did You Know?

Twice thermometers in Texas recorded a temperature of 49° Celsius (120° F). In 1936, Seymour reached that record-high temperature. Many years later, thermometers in Monahans showed that temperature.



Look at the thermometer. Could it record a temperature of 54° Celsius (129° F)? **Explain.**



Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line. A yellow pencil is shown at the start of the lines.

Dallas, Texas



What are solids, liquids, and gases?

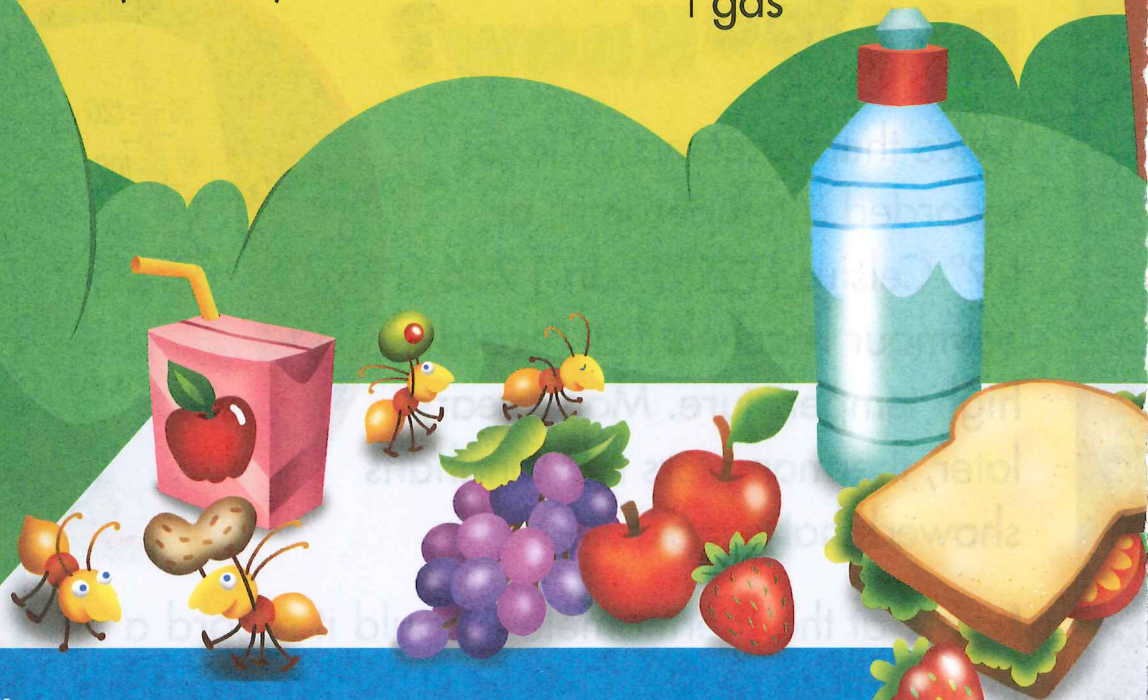


I will know TEKS 5A

I will know that matter can be a solid, a liquid, or a gas. (Also **2E**)


Vocabulary

- solid
- liquid
- gas



Connect to

Reading

Everything at this picnic is a kind of matter. Some matter changes shape. Some matter keeps its shape. Write to compare two different kinds of matter. Tell how they are alike and different.  **ELA TEKS 19A**



Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line.



Quick Lab

TEKS 5A, 1A, 2E

How are the states of matter different?

- 1. Gently squeeze each bag. **Observe.**
- 2. Tell how the shape of the rock, the water, and the air changes. **Record.**



Handwriting practice lines (blue top and bottom lines, dashed blue middle line, pink baseline) for recording observations.

Explain Your Results

- 3. **Classify** How are solids, liquids, and gases different?

Handwriting practice lines (blue top and bottom lines, dashed blue middle line, pink baseline) for explaining results.

Materials

air in sealed plastic bag



rock in sealed plastic bag



water in sealed plastic bag



Texas Safety LAB RULES

Be sure bags are completely sealed. Clean up spills.



Solids

Everything around you is made of matter. All matter takes up space and has mass. Three states of matter are solid, liquid, and gas.

A **solid** is matter that keeps its own size and shape. Look at the picture of the art box. The box keeps its own size and shape. The box is a solid.

Underline three states of matter.

This art box and the objects in it are solids.



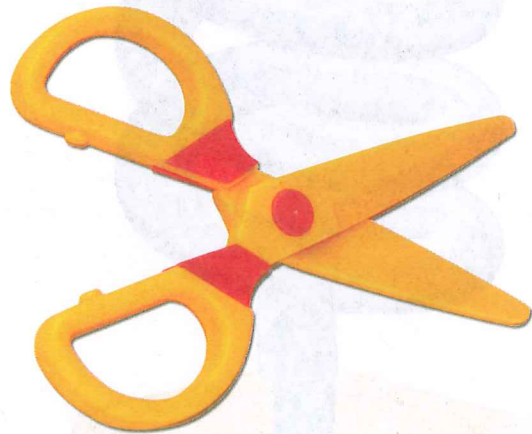


The paintbrushes keep their size and shape.



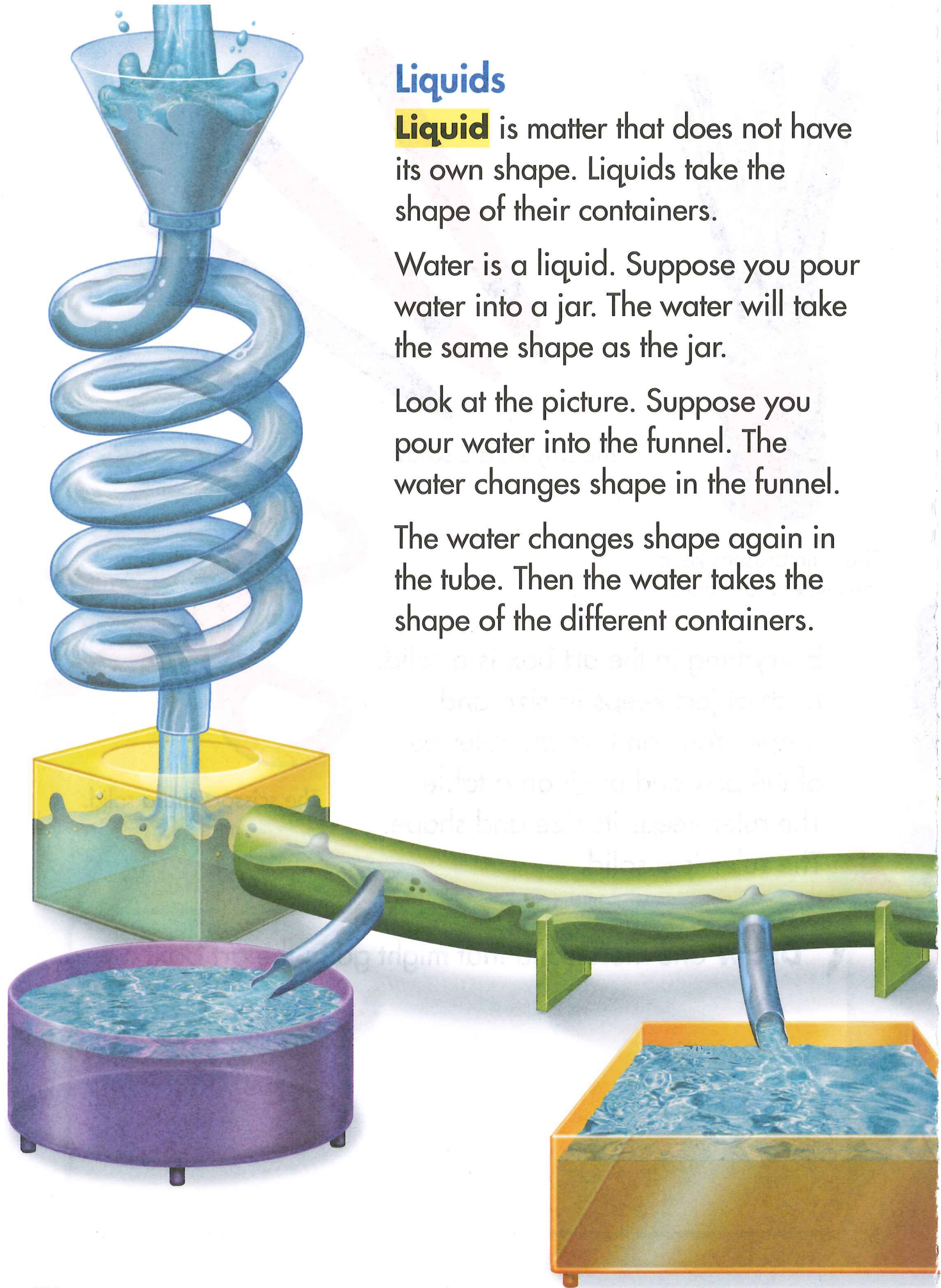
The crayons are solids.

Everything in the art box is a solid. Each object keeps its size and shape. You can take the ruler out of the box and put it on a table. The ruler keeps its size and shape. The ruler is a solid.



The scissors are a solid.

Draw one more solid that might go in the art box.



Liquids

Liquid is matter that does not have its own shape. Liquids take the shape of their containers.

Water is a liquid. Suppose you pour water into a jar. The water will take the same shape as the jar.

Look at the picture. Suppose you pour water into the funnel. The water changes shape in the funnel.

The water changes shape again in the tube. Then the water takes the shape of the different containers.

Name one solid and one liquid.

Write how the solid and liquid are different.




Four sets of primary writing lines, each consisting of a solid top line, a dashed middle line, and a solid bottom line.



Quick Lab

Water and Ice

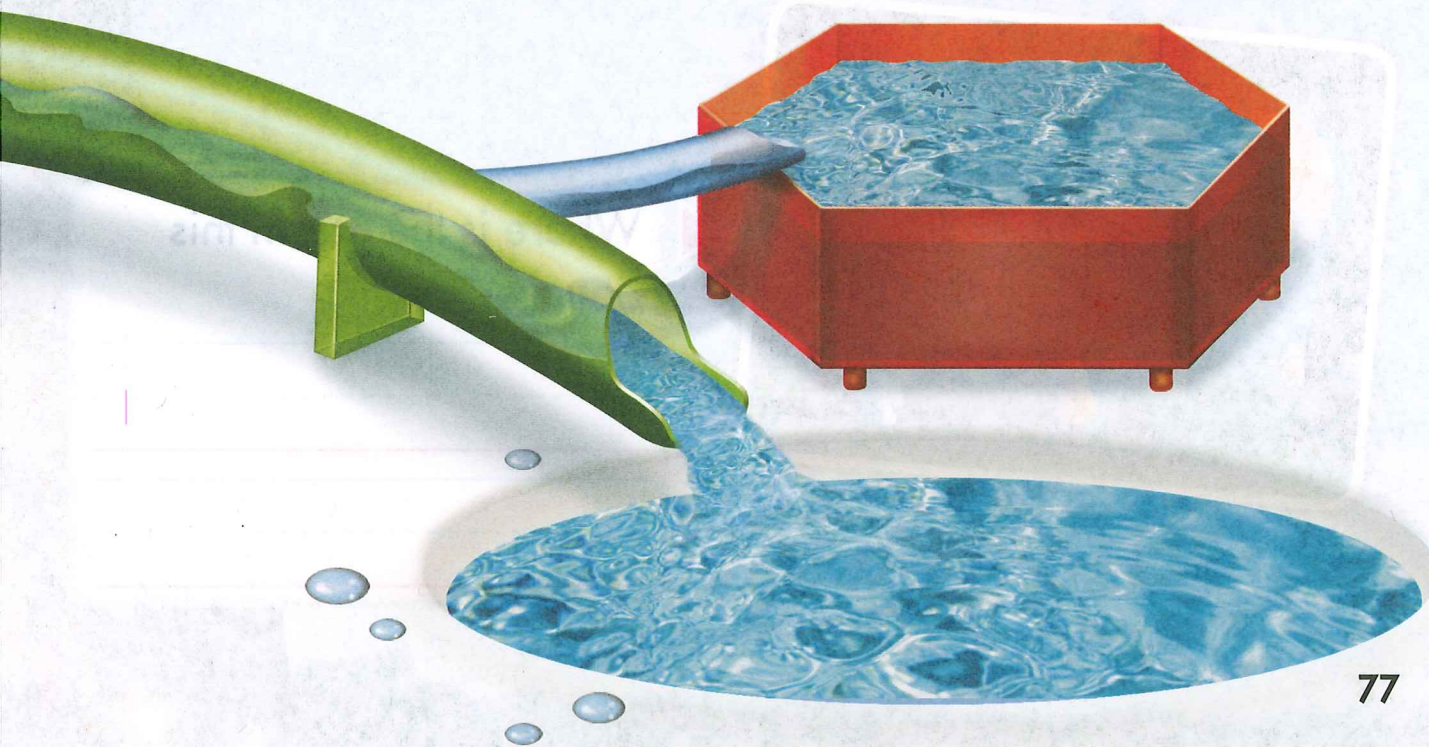
Put some ice cubes in a bowl. Fill the bowl with water. Tell what happens to the solids. Tell what happens to the liquid.  **TEKS 5A, 2E**



A large rectangular area with horizontal lines for drawing.

Look at the picture.

Draw two shapes the water takes.



Gases

Gas is matter that does not have its own size or shape. Gas takes the size and shape of what it is in. Gas takes up all of the space inside its container. The bubbles in the picture are filled with gas.

You know that air is all around you. Air is made of gases that you cannot see.

How are liquids and gases alike?



Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line, repeated three times.



Where is the gas in this bouncer?

Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line, repeated three times.



Draw an arrow to the gas in a bubble.

Tell what shape the gas takes.



What are some ways matter can change?



I will know TEKS 5C

I will know that matter can change in many ways.

(Also **2E, 3B**)

Vocabulary

physical change

Connect to

Math

 **Math TEKS 3A**

Materials can change in many ways. You can fold and cut paper into equal parts. Fold a sheet of blue paper in half. Open the paper and cut it apart along the line of the fold.

How many pieces do you have?



Label each piece $\frac{1}{2}$. Then fold a sheet of yellow paper in half twice. Open the paper and cut it apart along the lines of the folds.

How many pieces do you have?





Quick Lab

TEKS 5C, 1A, 2E

How can you change clay?

- 1. Make a ball of clay. Squeeze it. **Record** what happens.





- 2. Add the other clay to the ball. What happens?

Explain Your Results

- 3. **Communicate** What properties of the clay changed?

- 4. What could you do to change the clay back into 2 sticks?

Materials

yellow clay red clay

 **Texas Safety**
LAB RULES
Wash your hands.



Changing Matter

Matter can be changed. A **physical change** happens when matter changes but does not become a new kind of matter.

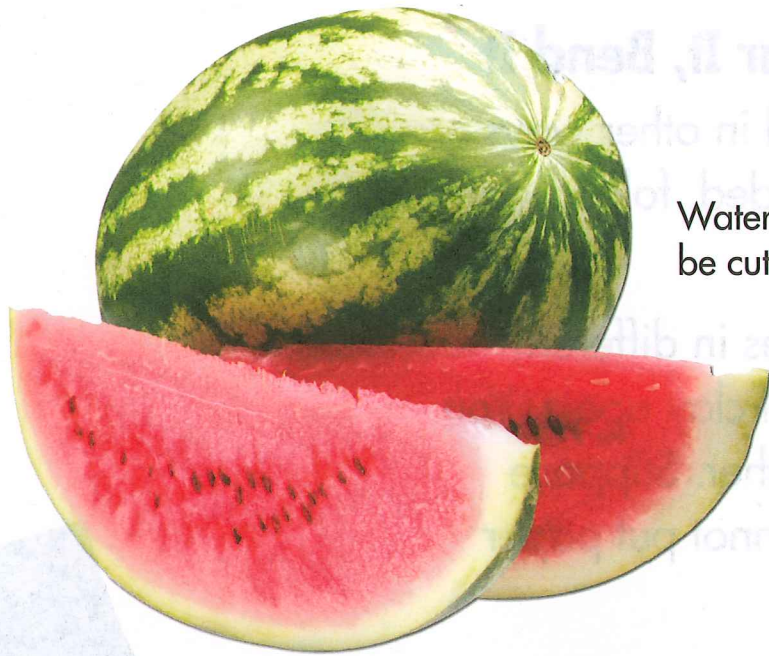
You can sharpen a pencil to change its size and shape. Sharpening causes a physical change. It is still a pencil after you sharpen it.

What is another physical change you can make to a pencil?



Handwriting practice lines consisting of four sets of horizontal lines. Each set includes a solid top line, a dashed middle line, and a solid bottom line. The lines are colored blue, pink, and blue from top to bottom.





Watermelon can be cut into slices.

Cutting Matter

You can change matter by cutting it. You can cut paper with scissors. Cutting causes a physical change. Cutting changes the size and shape of paper. But it is still paper after you cut it.

Demonstrate how you can change paper by cutting it. Draw a shape on paper. Use a scissors carefully. Cut out the shape.



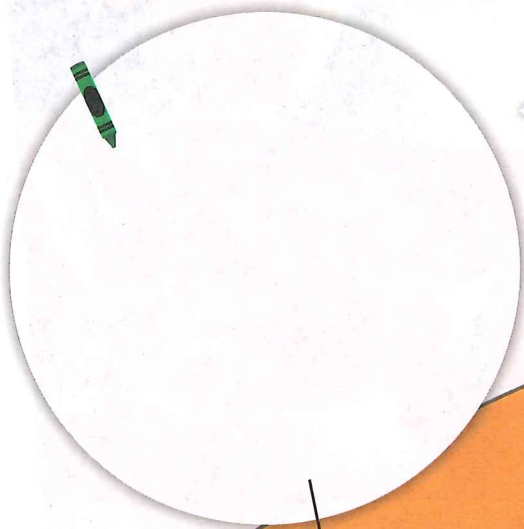
Explain how you changed the paper.

Mold It, Fold It, Tear It, Bend It

Matter can be changed in other ways too. Matter can be molded, folded, torn, and bent.

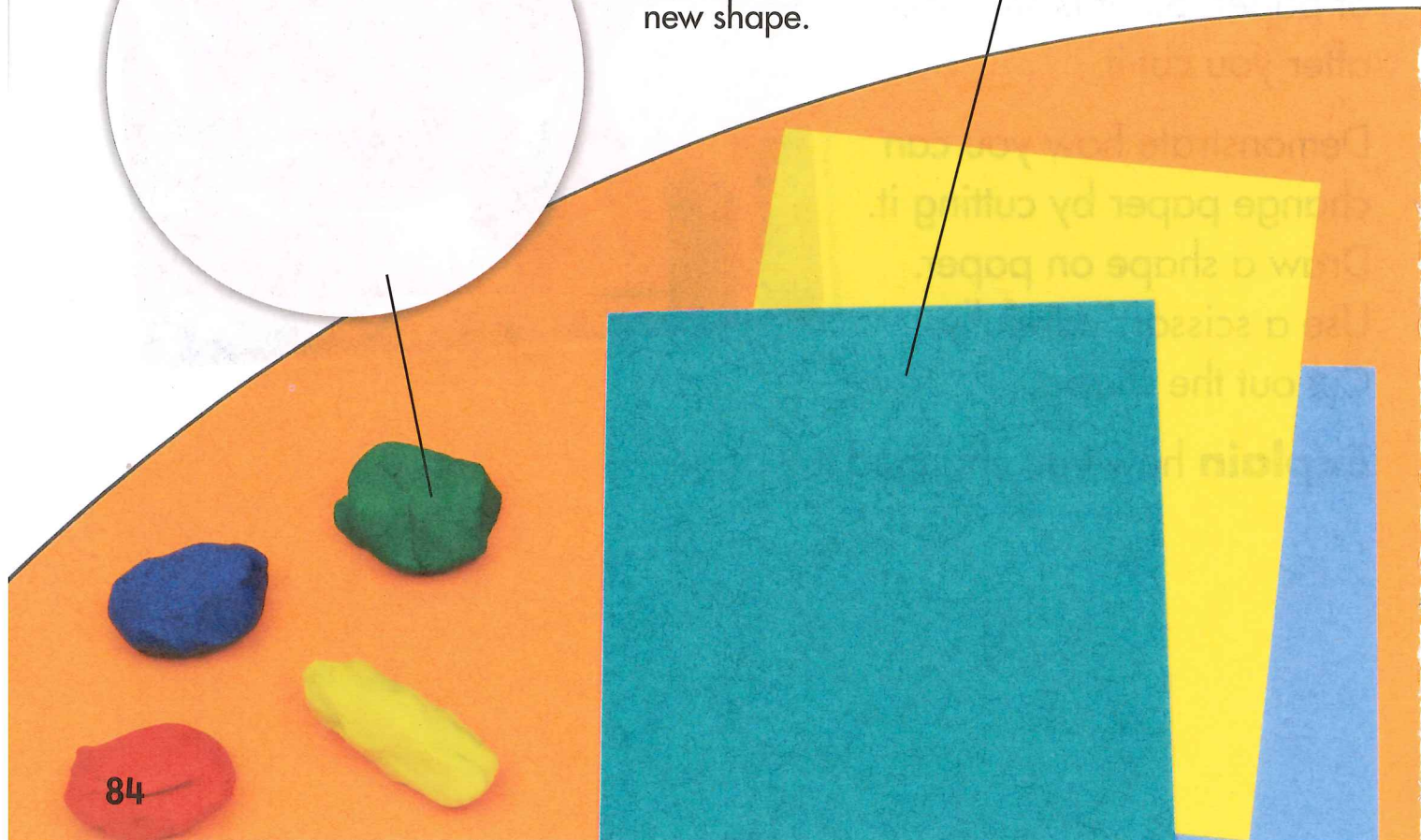
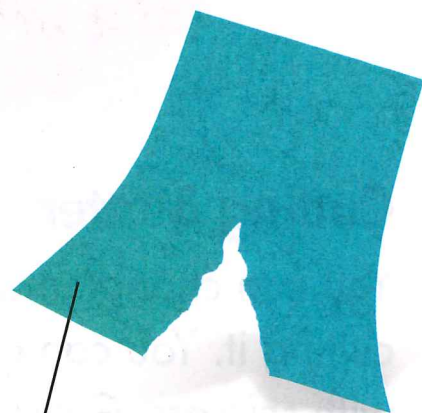
Different matter changes in different ways. Suppose you pull clay apart. You can put clay back together. Suppose you tear paper. You cannot put paper back together.

Draw the clay and pipe cleaners after they have changed.



◀ Clay can be molded into a new shape.

▲ Paper can be torn to change its size.



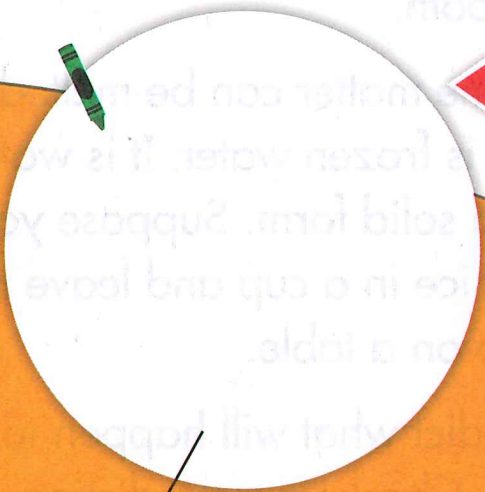
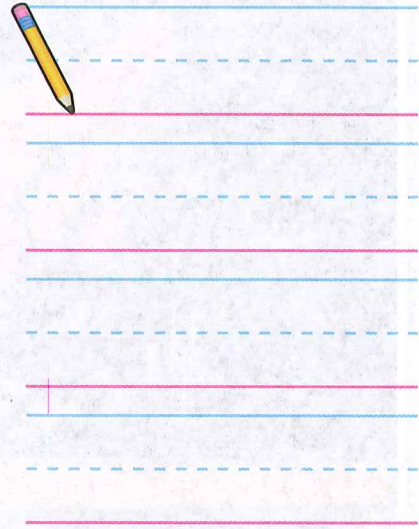
Changing Paper

Some matter can be changed in many different ways. You can cut paper. You can tear paper. You can crumple paper. You can change paper in other ways too.

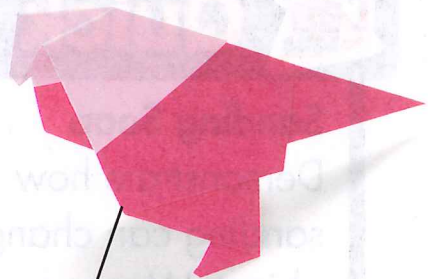
Demonstrate ways to change sheets of paper. Try to change the paper in many different ways.

Draw Conclusions Tell which changes you can undo.

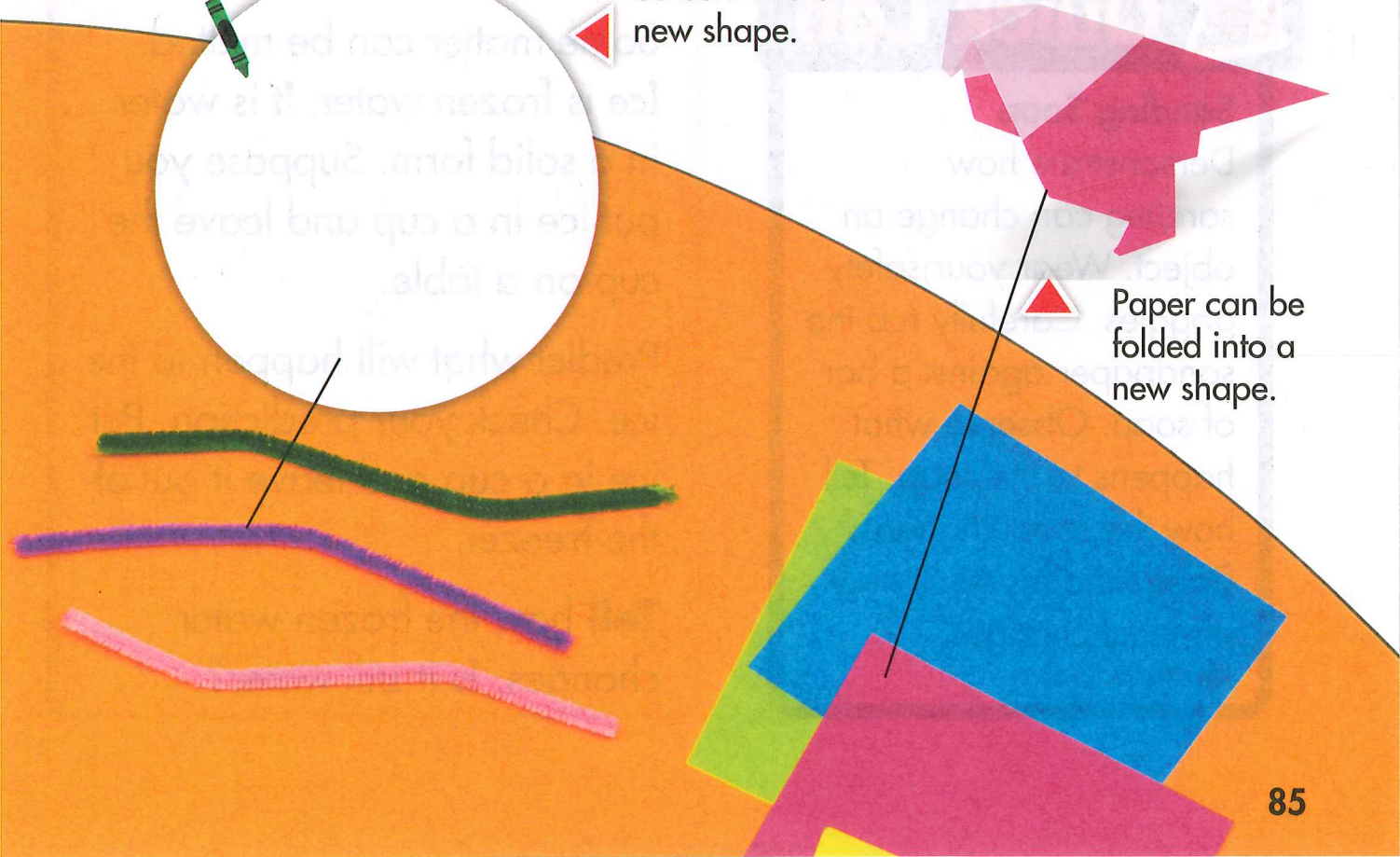
Make a list of the ways you changed the paper.



Pipe cleaners can be bent into a new shape.



Paper can be folded into a new shape.



Sanding makes
the wood smooth.



Sand It, Melt It

Some matter can be changed by sanding. You can use sandpaper to make matter smooth. Wood can be rough. Sanding the wood can make it smooth.

Some matter can be melted. Ice is frozen water. It is water in a solid form. Suppose you put ice in a cup and leave the cup on a table.

Predict what will happen to the ice. Check your prediction. Put ice in a cup and leave it out of the freezer.

Tell how the frozen water changes. Is it still water?



Quick Lab

Sanding Soap

Demonstrate how sanding can change an object. Wear your safety goggles. Carefully rub the sandpaper against a bar of soap. Observe what happens to the soap. Tell how the soap changes. Does sanding result in a physical change?

 **TEKS 5C, 1A, 2E**

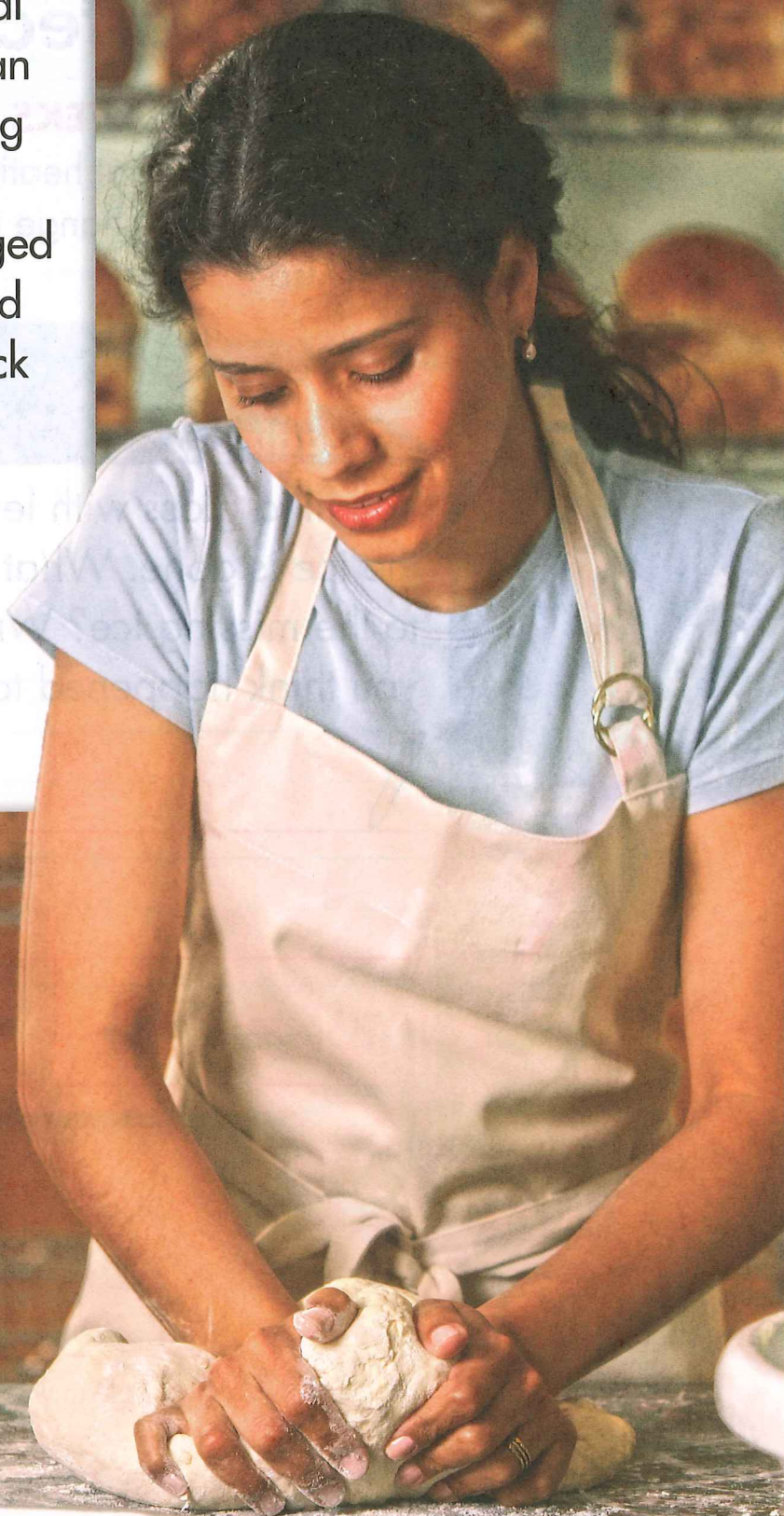
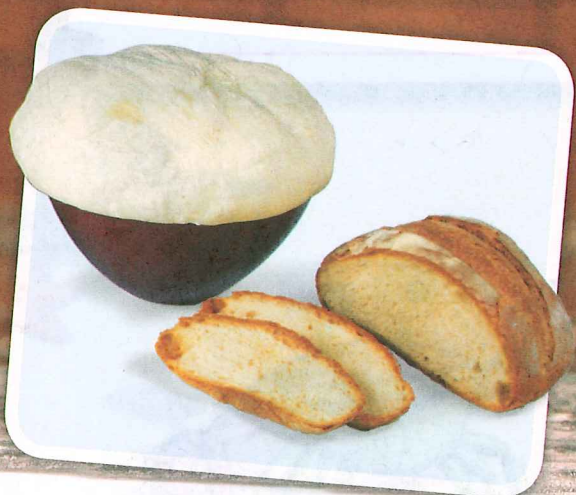
Other Ways Matter Can Change

Some changes are not physical changes. Sometimes matter can be changed completely. Baking bread dough in an oven will change it. The dough is changed into something different. Baked bread cannot be changed back into dough. The bread comes out of the oven warm and ready to eat!

Draw Conclusions **Look** at the pictures. **Discuss** how the dough changed.

The properties of dough are very different from the properties of bread.

Baking changes bread dough into bread.





How can cooling and heating affect matter?



I will know TEKS 5B


I will know that heating and cooling can change matter.
(Also **3B**)

Vocabulary

volume

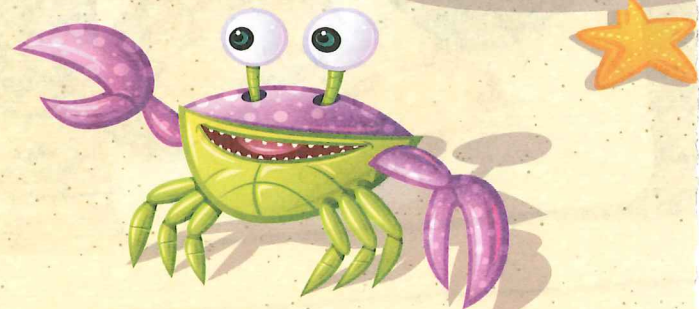
evaporate

Connect to
Reading

You fill a glass with lemonade and ice. Soon the ice is gone. What do you think happened to the missing ice? Write sentences telling what you think happened to the ice.  **ELA TEKS 19A**



Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line. There are four sets of these lines provided for writing.



How does cooling and warming change matter?

- 1. With help, add cooking oil to the 30 cc line on the measuring cup.
- 2. Put the cup in a freezer.
- 3. **Observe** Wait for one day. Take the cup from the freezer. Look at and feel the oil.

Explain Your Results

- 4. **Communicate** What effect does a freezing temperature have on oil?



- 5. **Predict** What will happen to the frozen oil if you leave the cup at room temperature for a few hours? Check your prediction. Tell what happens to the oil.

Materials

cooking oil

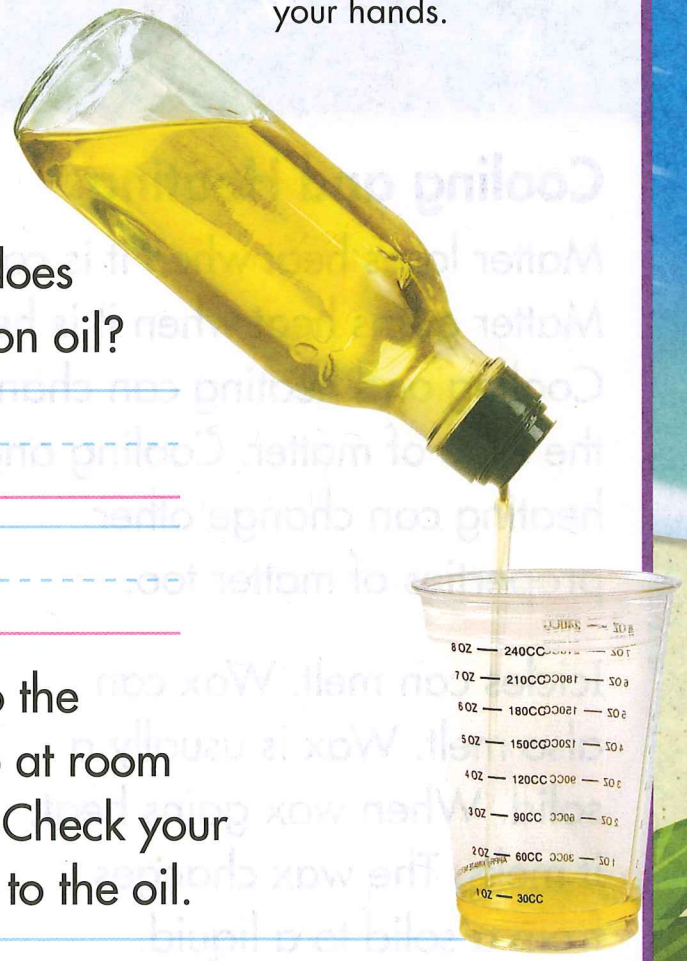


measuring cup



Texas Safety LAB RULES

Do not taste the oil.
Clean up spills. Wash your hands.





Cooling and Heating

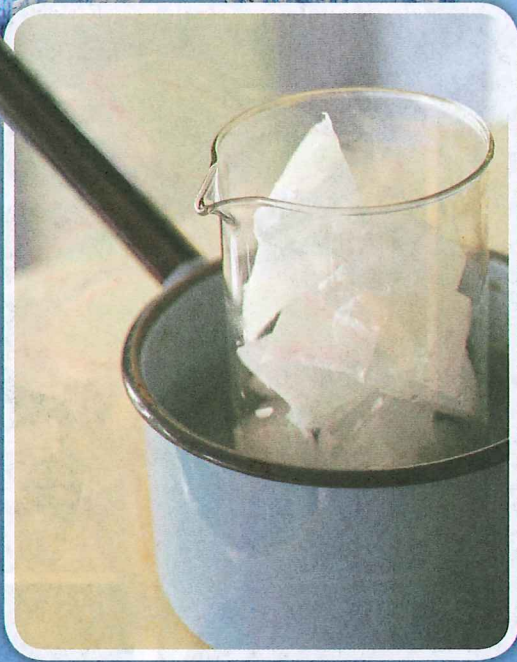
Matter loses heat when it is cooled.
Matter gains heat when it is heated.
Cooling and heating can change the state of matter. Cooling and heating can change other properties of matter too.

Icicles can melt. Wax can also melt. Wax is usually a solid. When wax gains heat, it melts. The wax changes from a solid to a liquid.

As these icicles gain heat, they melt.



Candles are made of wax.



Heat melts the wax in the pan.



Some candle makers dip strings in and out of melted wax to make candles.

Draw Conclusions Write what happens to melted wax when it is cooled.



Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line.

Cooling Matter

Cooling can change the state of matter. Some properties of matter change when it is cooled.

Water can be a solid, a liquid, or a gas. Water can change from a liquid to a solid. Suppose the air temperature is very cold. Rain will freeze and change to ice. Ice is a solid. The volume of ice is greater than the volume of liquid water.

Volume is the amount of space matter takes up.

Water can change from a gas to a liquid too. Have you ever had a cold drink on a hot day? Water vapor in the air touches the cold glass. The water vapor changes from a gas to a liquid. Tiny drops of water form on the glass.

Describe how the properties of ice and liquid water are different.

Water on these leaves changed from a liquid to a solid. Water expands, or gets bigger, as it freezes.



Heating Matter

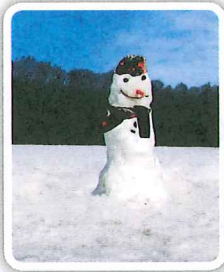
Heating can change the state of matter. Some properties of matter change when the matter is heated.

Ice and snow melt when the air warms. The volume of ice and snow gets smaller and smaller. Solid water becomes liquid water.

Puddles evaporate into the air. Water and other liquids **evaporate** when they change from a liquid to a gas. The liquid water in a puddle changes to water vapor. Water vapor is a gas. The volume of liquid water in the puddle gets smaller and smaller.


Suppose the temperature of water is very hot. Water boils and changes to water vapor. Water vapor is inside the bubbles of the boiling water.

Draw Conclusions Look at the pictures of the snowman. Tell how the snow changed.



Quick Lab

Observe Evaporation

Pour small amounts of liquids such as water, detergent, and rubbing alcohol in clear plastic cups. Draw a line at the top of each liquid. Put the cups in a warm place. Check the cups every day. Observe how fast the liquids evaporate.  **TEKS 5B**

Texas



Lesson

5

How can you combine materials?



I will know TEKS 5D

I will know that materials can be combined to make or build things. (Also **5A**)

Vocabulary

combine

Connect to

Math

STEM

 Math TEKS 6A


You can use math to help you determine how much material you need when making something. Suppose you are making a cardboard bridge. You tape a piece of cardboard to the top of 4 cardboard tubes. This is 1 section of your bridge. You can make the bridge longer by adding more sections.

You decide to make 5 sections. How many pieces of cardboard do you need? How many tubes? You can multiply to find the answers.

Number of cardboard pieces needed for 5 sections:

$$1 \times 5 = 5$$

Number of tubes needed for 5 sections:

 _____ \times 5 = _____

Austin, Texas

How can you build a bridge?

- 1. Plan a design for a bridge.
- 2. Draw your design.



- 3. Choose materials.
- 4. Build a bridge that will hold the toy car.
- 5. Put the toy car on the bridge.

Explain Your Results

- 6. **Communicate** What materials did you use? Tell why.
- 7. **Infer** Could you have used just one kind of material? Explain.



Handwriting lines for explaining results, consisting of a solid top line, a dashed middle line, and a solid bottom line.

Materials



 **Texas Safety**
LAB RULES
Handle scissors carefully. Wash your hands.

Combining Materials

Materials have many different properties. Materials may be strong. They may be sticky. They may be hard. How you use a material depends on its properties. Tape is flexible and sticky. You can use tape to seal a box. You can use tape to wrap a gift. The properties of tape make it useful for these jobs.

Underline the properties that make tape useful for wrapping a gift.

The girl is using tape to keep the bag closed.



You can combine materials that have different properties. You **combine** materials when you put them together. You can use combined materials to make things that you could not make with just one material.

You could not make a kite with just string. You could not make a kite with just paper. You need more than one material to make a kite. You need paper, lightweight cloth, or plastic. You need thread or glue. You need thin wood strips and string. By combining these materials, you can make a kite.

The girl's kite is made of cloth, wood, and string.

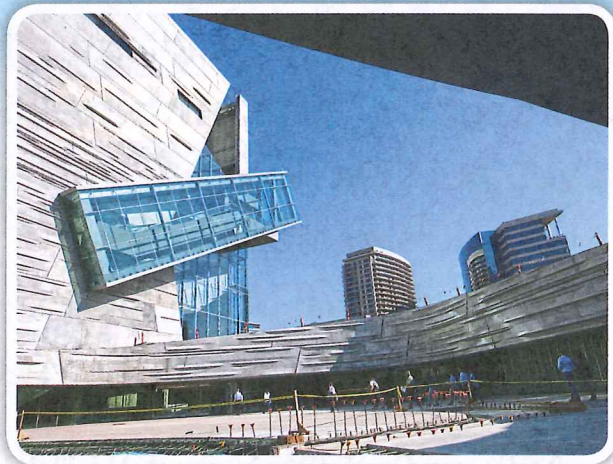
Underline the materials you need to make a kite.

Combined Materials

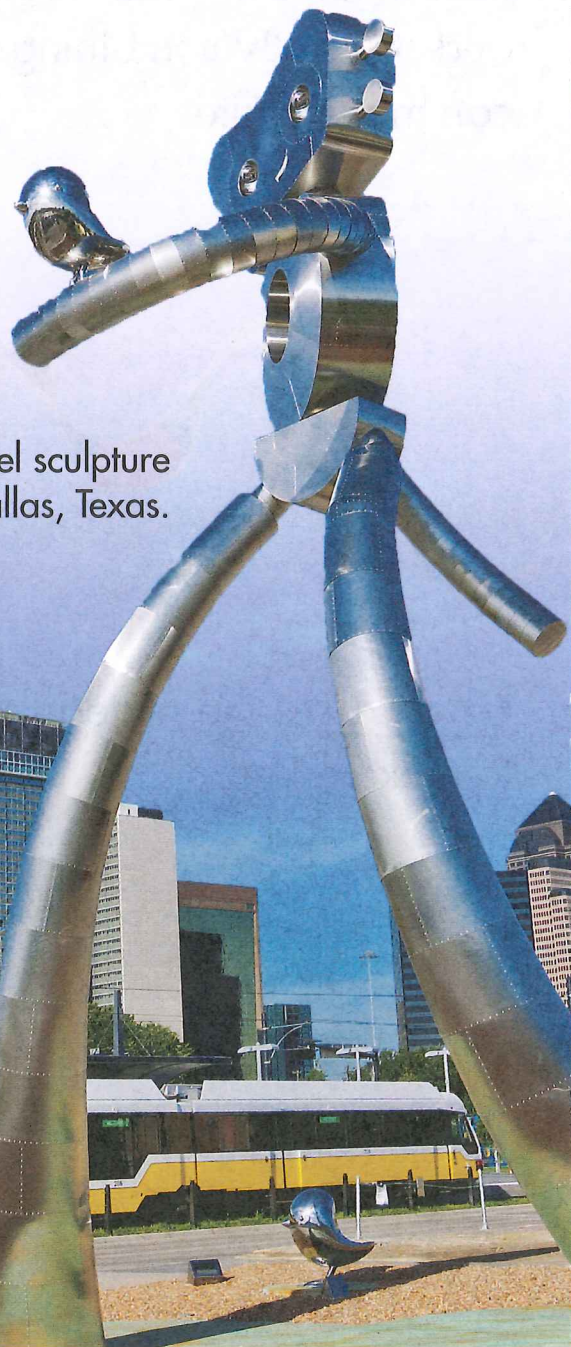
Some materials are combinations of other materials. Steel is a combination of iron and other materials. Steel is a strong, hard metal, which makes it a good building material. It can be formed into beams, cables, and wire. Steel has other uses too. Some pots and pans are made of steel. Even some works of art are steel.

Like steel, concrete is a combination of materials. Cement, sand, gravel, and water make up concrete. Workers pour concrete into forms. The concrete hardens. The hardened concrete is strong.

Name steel things you have seen or used.



Steel is one of the materials used to build the new Perot Museum of Nature and Science in Dallas, Texas.



This steel sculpture is in Dallas, Texas.



Materials in Bridges

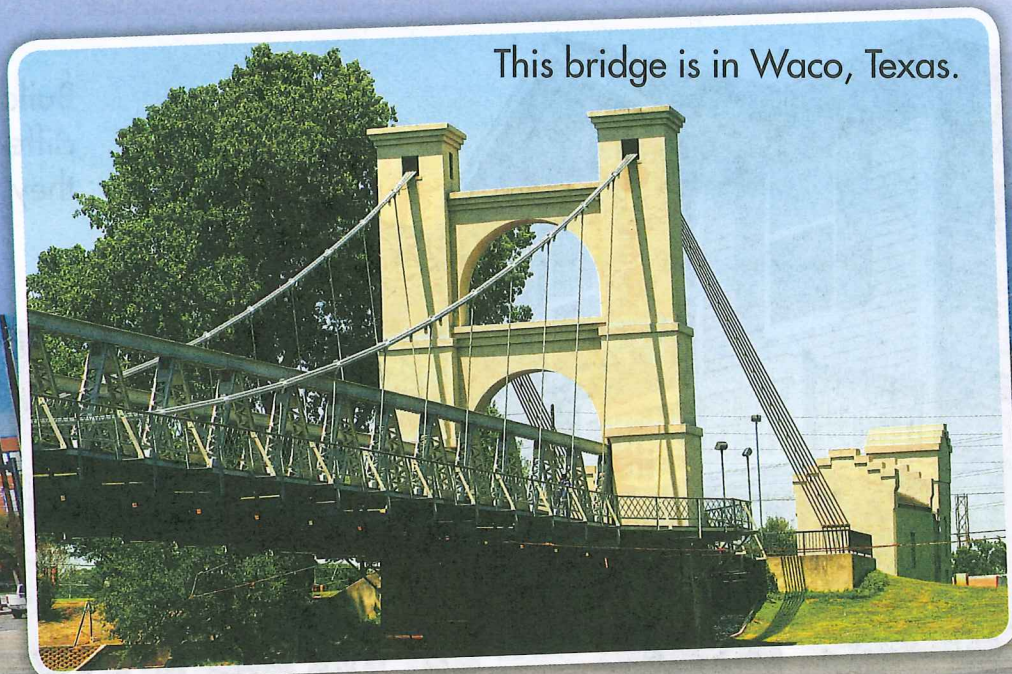
Many bridges are made of concrete and steel. Steel cables and beams are part of the bridges. Thick concrete poles help hold up the bridges. The roadways are concrete. Concrete and steel bridges are strong.

Not all bridges are made of steel and concrete. You can find other materials in bridges too. Some footbridges are made of wood. Wood is not the only material in these bridges though. Bolts or nails hold the wooden parts together. Bolts and nails are made of metal.

Look at the photographs of the bridges. **Compare** the bridges. **Tell** how they are alike and different.



This footbridge is in a garden in Austin, Texas.



This bridge is in Waco, Texas.

Building Materials

Bridges are structures. Houses and towers are structures too. A structure is something that is constructed. Many structures have concrete and steel parts. Other materials used in structures are glass, wood, stone, and brick. Each kind of material has its own properties and uses.

Look at these homes. Their windows are glass. The window frames are wood. Some of the outside walls are brick and mortar. Mortar holds the bricks together. These homes could not be built with just one material. They needed a combination of materials.

Look around your home. **Write** a list of materials that are part of the building.



Builders used many different materials when they built these homes.



This tower is in Dallas, Texas.

Materials in Towers


A tower is a very tall building. Towers are also called skyscrapers. You can see many different materials in towers. The tower in the picture is in Texas. The outside of the tower is mostly glass and concrete. Other towers might have stone or steel walls. Take a look inside the tower. You might see steel, wood, glass, stone, and other materials.

Explain why builders use many materials when building structures.



Quick Lab

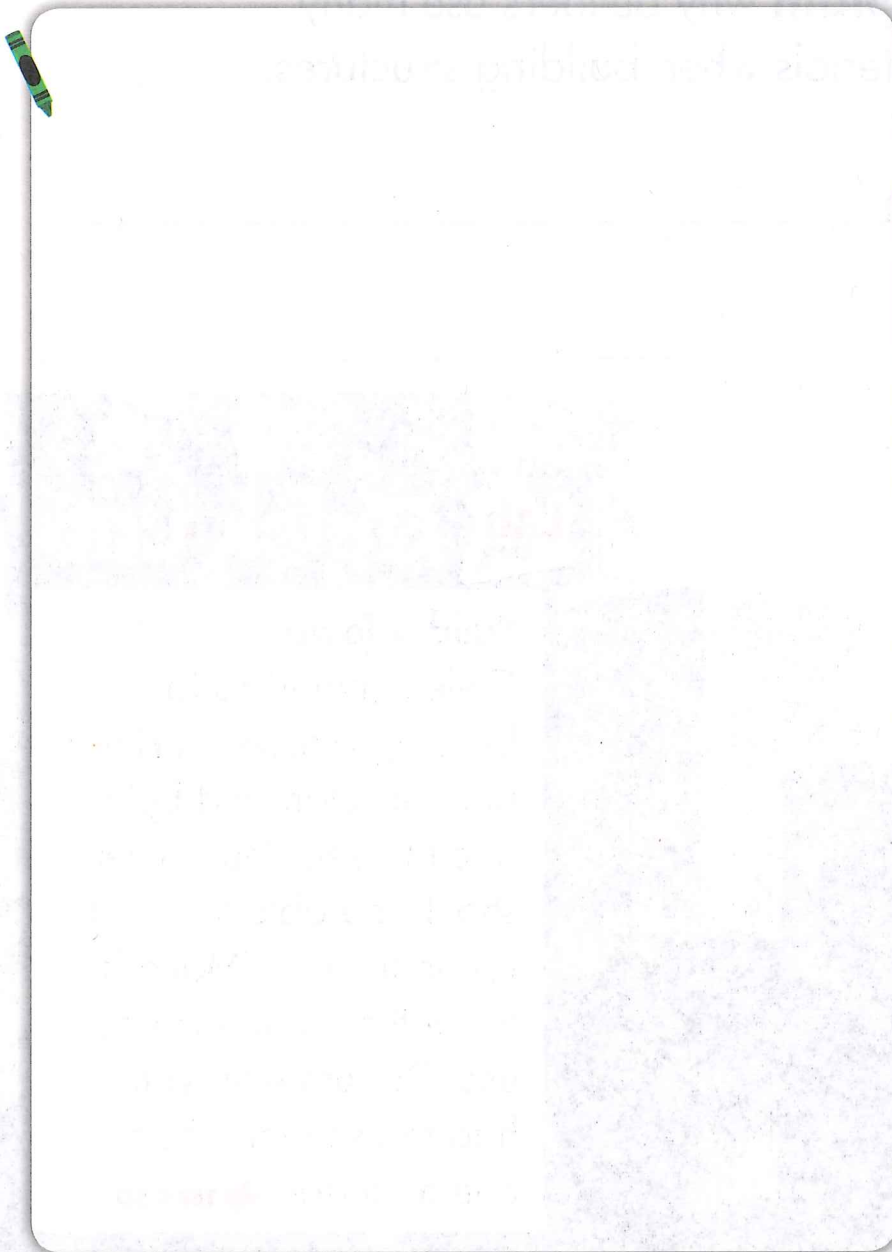
Build a Tower

Collect materials for building a tower. With a partner, plan and build a tall tower. Your tower should be able to stand up on its own. Make a list of the materials you use. Discuss why you had to use more than one material.  **TEKS 5D**

How can a machine ring a bell?

Follow a Procedure

- 1. **Design** a machine to ring a bell from 1 meter away. Use any materials you wish.
- 2. Draw your plan.



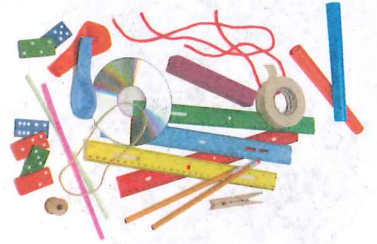
Materials



bell



marble



common objects



meterstick

Inquiry Skill

You **infer** when you get ideas from what you learn.

3. **Record** what materials you will use.



4. Test your design.

My machine (**did** / **did not**) ring the bell.

5. Evaluate your design. How could you **redesign** your machine to ring the bell better?

Analyze and Conclude

6. **Communicate** How did combining materials help you solve the problem?

7. **Infer** Could you have solved the problem using only a ruler? Explain.

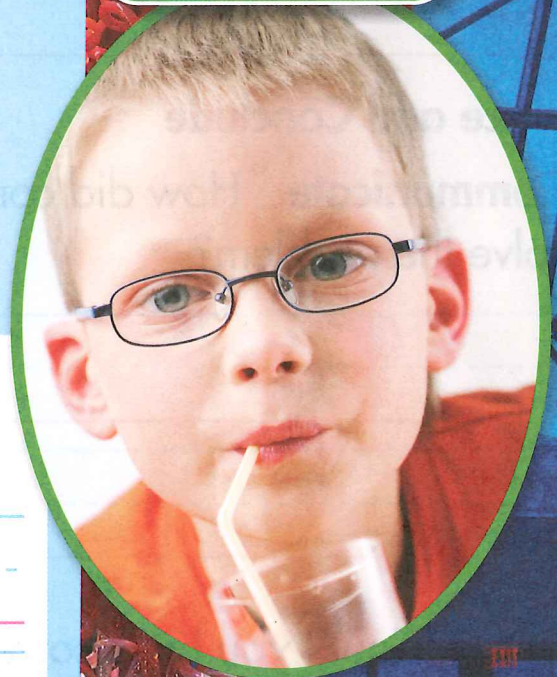
From Sand to Glass

Big World

Dale Chihuly is an artist. He made this glass sculpture. Glass is used in everyday objects such as eyeglasses too. Glass objects can look different. But they all have something in common. They are made from sand.

Glass is made mostly from melted sand. Sand melts at very high temperatures. The melted sand is soft. It hardens into glass when it cools.

My World



How is hot, melted sand different from glass?



Four sets of horizontal writing lines, each consisting of a solid top line, a dashed middle line, and a solid bottom line, for student response.

Vocabulary Smart Cards

combine
evaporate
gas
liquid
matter
physical
change
property
solid
thermometer
volume

Play a Game!

Cut out the cards.

Work with a partner.

Cover up the words.

Use the pictures to guess the words.



solid



sólido

matter



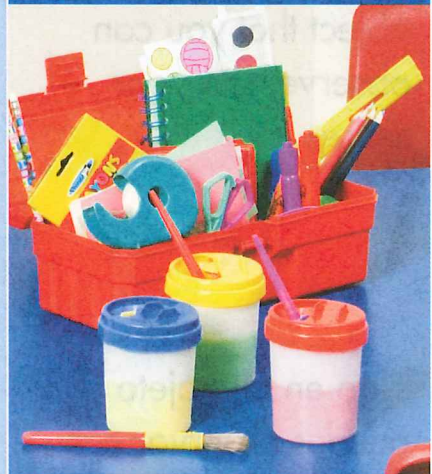
materia

liquid



líquido

property



propiedad

gas



gas

thermometer



termómetro

anything that takes up space and has mass



todo lo que ocupa espacio y tiene masa

matter that keeps its own size and shape



materia que mantiene tamaño y forma propios

something about an object that you can observe with your senses



algo en un objeto que puedes observar con tus sentidos

matter that has its own volume but takes the shape of its container

materia que tiene su propio volumen pero que toma la forma del recipiente que la contiene

a tool that measures temperature



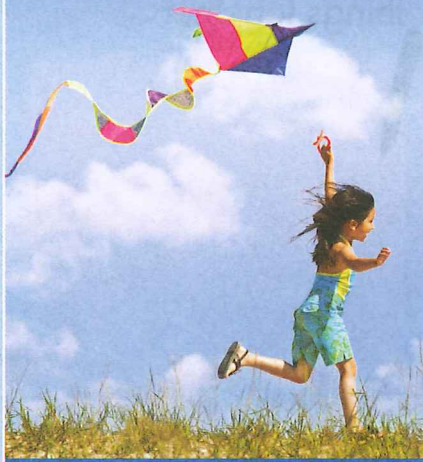
instrumento para medir la temperatura

matter that does not have its own size or shape



materia que no tiene tamaño ni forma propios

combine



combinar

physical change



cambio físico

evaporate



evaporarse

volume



volumen



a change to matter
without making it a
new kind of matter



un cambio a la
materia que no la
convierte en una
materia nueva

to put two or more
things together



unir dos o más
cosas

to change from a
liquid to a gas



cambiar de líquido
a gas

the amount of space
matter takes up



cantidad de espacio
que ocupa la materia



Lesson 1  TEKS 5A

1. **Vocabulary** Write two things you know about matter.



2. **Evaluate** **Circle** two objects that have a property that is the same. **Tell** about your answer.

Lesson 2  TEKS 5A

3. **Classify** **Circle** the solids. **Draw** an X on the liquid.



4. **Vocabulary** Which state of matter has its own shape?

Circle the letter.

A solid

B liquid

C gas

D property

TEKS Practice

Lesson 3 TEKS 5C

5. **Classify Identify** three ways you can make a physical change to paper.



Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line. There are four sets of these lines provided for writing.

Lesson 4 TEKS 5B

6. **Draw Conclusions Write** what made the candle melt.

Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line. There are three sets of these lines provided for writing.



7. **Describe** How are water and water vapor different?

Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line. There are four sets of these lines provided for writing.

TEKS Practice

Lesson 5 TEKS 5D

8. **Justify** **Circle** two materials you would use to make a tower. Tell why you would use those materials.

boxes balloons clay cardboard tubes tape cups



Chapter 2

Lesson 1 What are some properties of matter?



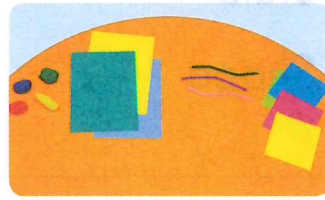
 TEKS: 5A

Lesson 2 What are solids, liquids, and gases?



 TEKS: 5A

Lesson 3 What are some ways matter can change?



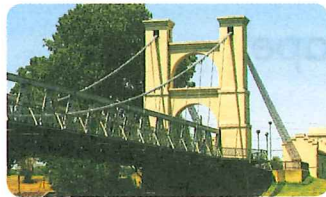
 TEKS: 5C

Lesson 4 How can cooling and heating affect matter?



 TEKS: 5B

Lesson 5 How can you combine materials?

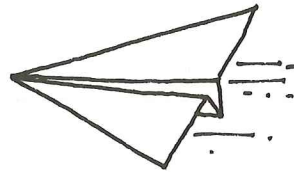
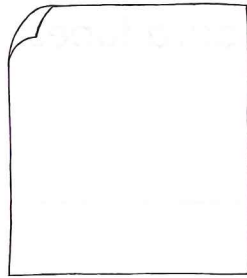


 TEKS: 5D

★ TEKS Practice: Chapter Review

Read each question and circle the best answer.

1 Look at the pictures.



The pictures show how a piece of paper can be changed. Which of the paper's properties changes?

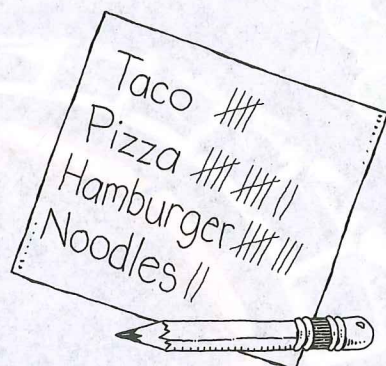
- A Mass
- B Matter
- C State
- D Shape

2 How is a solid different from a liquid?

- F A solid has matter.
- G A solid takes up space.
- H A solid keeps its shape.
- J None of the above

★ TEKS Practice: Cumulative Review

- 3 Tyler's class eats lunch at school. One day Tyler observed what each student ate. He recorded it on a tally chart.



Which sentence correctly describes Tyler's observations?

- A More students ate tacos than any other food.
- B More students ate pizza than any other food.
- C More students ate hamburgers than any other food.
- D More students ate noodles and tacos than hamburgers.

If you have trouble with . . .			
Question	1	2	3
See chapter (lesson)	2 (3)	2 (2)	1 (5)
TEKS	5C	5A	2E

What makes roller coasters fun?

