



Preview - Information



Thank you for your interest in this product. Within this preview, you will see:

- ✓ A selection of Ready-To-Use Google Slides Lessons.
- ✓ A selection of worksheets included in the workbook.

When you make a purchase, you will receive a folder that contains the .pdf workbook file and a link to where you can make a copy of the Google Slides Lessons unit to your Google Drive.

Thank you for shopping with us. Please let us know if you have any questions at:

rob@supersimplesheets.com



Google Slides Lessons Preview






Alberta Science Curriculum Matter Unit – Grade 1

3-Part Lesson Format

Part 1 – Minds On!

- Learning Goals
- Discussion Questions
- Quotes
- And More!

WHAT ARE OBJECTS?



LEARNING GOAL

We are learning to **tell what an object is** and what is **not an object** so we can **think and talk about things we see and touch.**

SORTING ACTIVITY – OBJECTS OR NOT OBJECTS?

(PLACE A IN THE CORRECT COLUMN.)

	Item	Object	Not an Object
1	Love		
2	Desk		
3	Time		
4	Lamp		
5	Bottle		
6	Idea		

Use this to complete the activity:

Part 2 – Action!

- Writing
- Matching
- Drag and Drop
- Drawing
- And More!

Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!



Consolidation – Reflection

Complete these sentences to show what you learned about objects. Use what you know about what an object is and what is not an object.

- 1) I learned that an object is something I can _____.
- 2) An object takes up _____.
- 3) Time is not an object because _____.
- 4) One object I see at school is _____.



Alberta Science Curriculum Matter Unit – Grade 1

SORTING ACTIVITY - MEASURE IT!

Look at each object. Decide if you would measure it by height, width, or depth. Drag the object to the correct box.

Height (How tall?)	Width (How wide?)	Depth (How deep?)



HEAVY OR LIGHT?

Read each item. Decide if the object is Heavy or Light.

1. A truck
2. An elephant
3. A balloon
4. A couch
5. A feather
6. A pencil



Heavy

Light



Read the paragraph about bending and use the word bank to complete the paragraph.

When we an object, we change its . If you bend something too much, it might . Bending is a change because the object is still the same thing.

break

bend

physical

shape



Alberta Science Curriculum Matter Unit – Grade 1

CHOOSE THE CORRECT STRETCHING FACT

Read each question. Drag the correct letter (A, B, or C) to the empty box.



- | | | | | |
|---|--------------------|-------------------|--------------------|--|
| 1) What happens when you stretch a rubber band? | A) It gets heavier | B) It gets longer | C) It gets smaller | |
| 2) Which object can stretch easily? | A) Rock | B) Brick | C) Slime | |
| 3) Why can a rubber band stretch? | A) It is flexible | B) It is heavy | C) It is sharp | |
| 4) What changes when you stretch an object? | A) Its colour | B) Its shape | C) Its name | |

- A
- B
- C

WORD SEARCH – DRAG

Find the 8 words in the puzzle. Circle each word. Use the list below.

B N B G E C P A P E R J U
 M P Y E B I H I N U R R F
 L E S U K V T A C P U R N
 Q K S X B Y M S I R J O H
 X W H V O J M T W N E C B
 W P K T Q I T I M K Z K R
 N H J C U P R C U G C Y I
 G L A S S F T K E R M G C
 E R S G S V L N Q R V V K

Glass	Rock
Stick	Toy
Cup	Brick
Paper	Chain

	Description
Heavier than	
Lighter than	
The same weight as	
Heaviest	
Lightest	

- Has less weight
- Has equal weight
- Has the least weight in a group
- Has more weight
- Has the most weight in a group



Workbook Preview



Grade 1 – Science Unit

Organizing Idea Matter: Understandings of the physical world are deepened by investigating matter and energy.

Guiding Question: How can properties of an object be altered?

	Learning Outcome - Students analyze properties of objects and investigate how they can be changed.	Pages
MO.1	Measurable properties of objects include: <ul style="list-style-type: none">• length• how much flat space an object covers (area)	39
MO.2	<ul style="list-style-type: none">▪ weight (mass)▪ shape▪ texture Actions that physically change properties of an object include: <ul style="list-style-type: none">▪ bending▪ twisting▪ stretching▪ cutting▪ breaking Not all objects respond the same way to bending, twisting, stretching, cutting, or breaking.	40 – 42, 47 – 67, 71 – 72
Computer Science - <u>Learning Outcome</u>		
CS.1	Students follow instructions and relate them to outcomes.	43 – 46, 68 – 70

Preview of 60 pages from this product that contains 110 pages total.

NAME: _____

OBJECTS




What are Objects?

An object is something that you can touch or see.


- ✓ You can see it: An object is something that you can see. For example, a pencil, toy, book, or chair are all objects because you can see them with your eyes.
- ✓ You can touch it: An object is something you can touch or hold in your hand. Your lunchbox, table, and backpack are all objects.
- ✓ It takes up space: This means if you put it somewhere, like on your desk or in your room, it takes up some of the space there.


Directions: Write Yes or No in the box to tell whether it is an object or not.


Dream	
	
Yes	No


Real	
	
Yes	No

Shoes	
	
Yes	No

Love	
	
Yes	No

Time	
	
Yes	No

Tea	
	
Yes	No

Chair	
	
Yes	No

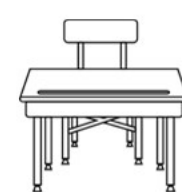

Desk	
	
Yes	No

Table	
	
Yes	No

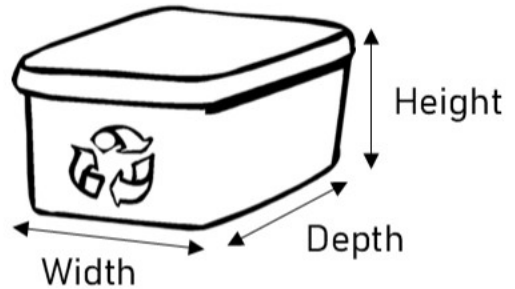
Length of Objects – Height, Width, Depth

Length is the distance between two points. Objects have three different lengths:

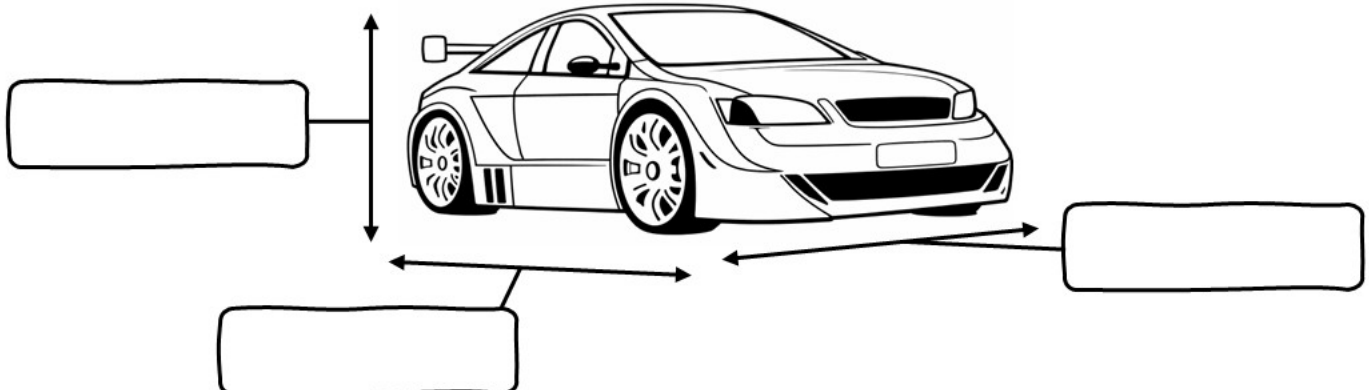
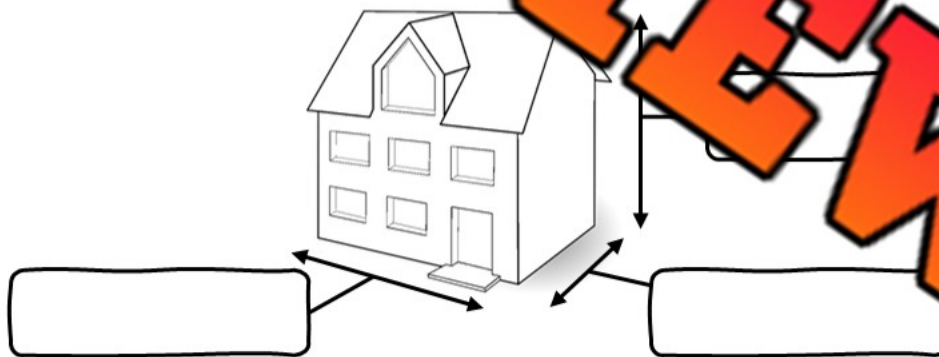
Height – how tall something is

Width – how wide something is

Depth – how deep something is


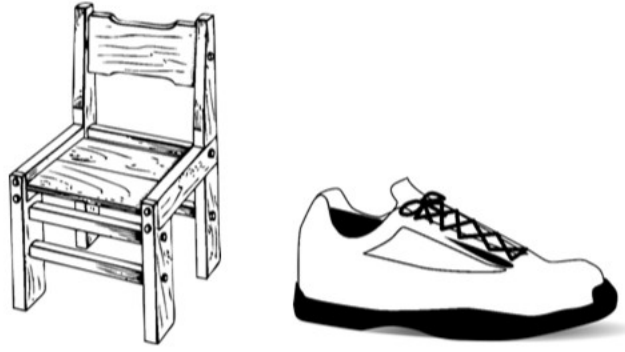




Question: Measure the height, width, and depth of the objects

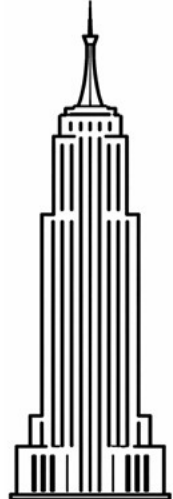


Length of Objects – Height

Part 1 Which object is taller?

1) 	2) 
3) 	4) 

Part 2 Draw a tower with more height and one with less height

		
Less Height - Shorter	Empire State Building	More Height - Taller


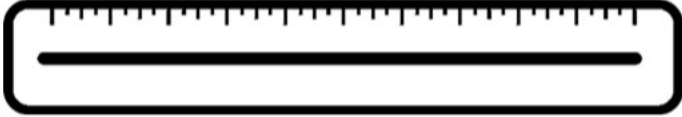
Name: _____

Comparing Length – Scavenger Hunt

Questions

Find objects in your class that are shorter/taller than your pencil

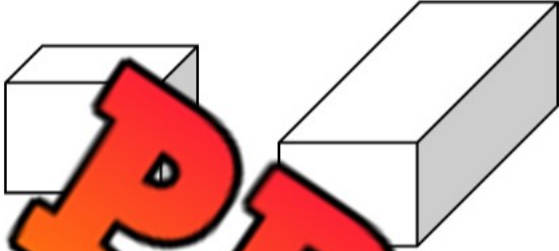
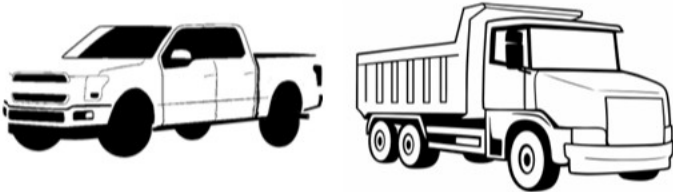
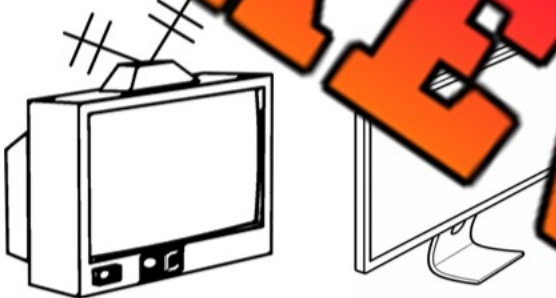
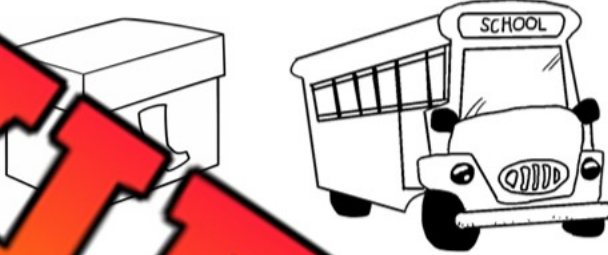


Shorter	Taller
	


PREVIEW

Length of Objects – Depth

Part 1 Which object is deeper?

1) 	2) 
3) 	4) 

Part 2 Draw one object that is shallower and one that is deeper.





		
Less Depth - Shallower		More Depth - Deeper

Exit Cards

Cut Out Cut out the exit cards below and have students complete them at the end of class

Name: _____

Order the objects from shallowest to deepest

			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





Name: _____

Order the objects from shallowest to deepest

			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name: _____

Order the objects from shallowest to deepest

			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Activity – Width

Objective

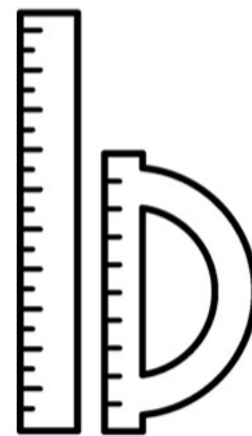
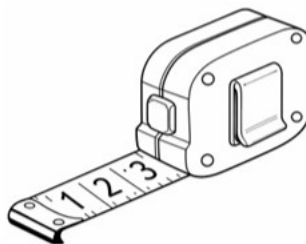
What are we learning more about?

This activity is designed to help students understand the concept of width and how it applies to different objects.

Materials

What do we need for our activity?

- ✓ Various objects of different widths (e.g., a pen, a pencil, a ruler)
- ✓ Large sheets of paper
- ✓ Markers or crayons
- ✓ Measuring tape or ruler



Method

How do we complete the activity?

- 1) Start by explaining the concept of width (the measurement of an object from one side to the other).
- 2) Present the various objects to the students and discuss their widths. If available, use a measuring tape or ruler to show the width.
- 3) Ask the students to arrange the objects in order from narrowest to widest.
- 4) Hand out sheets of paper and markers or crayons.
- 5) Instruct the students to draw the objects in their order, trying to represent their relative widths accurately.
- 6) Once the students are finished, ask them to present their drawings and explain why they arranged the objects as they did.

Results

Answer the questions below

1) Draw the objects from narrowest to widest below.



2) Draw an object that is as wide as you and



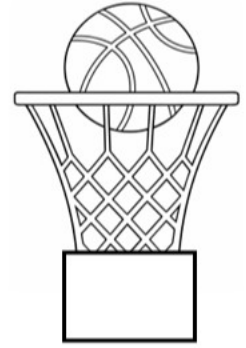
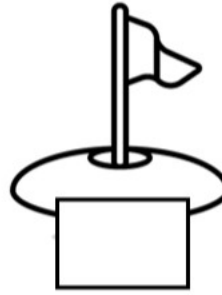
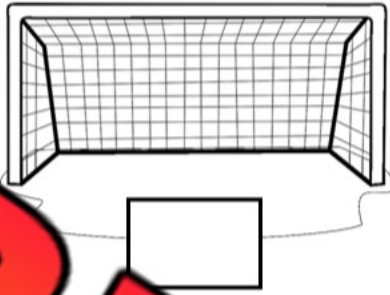
PREVIEW

Length of Objects – Width

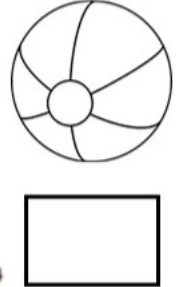
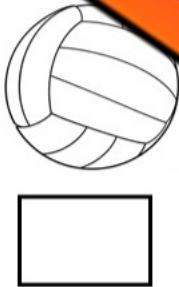
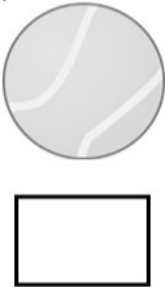
Part 1

Order the objects from narrowest to widest

1)

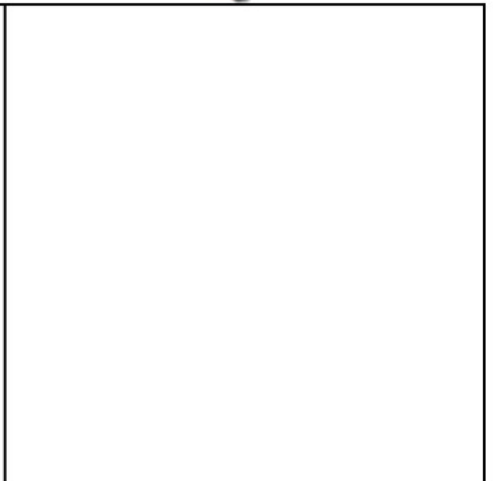
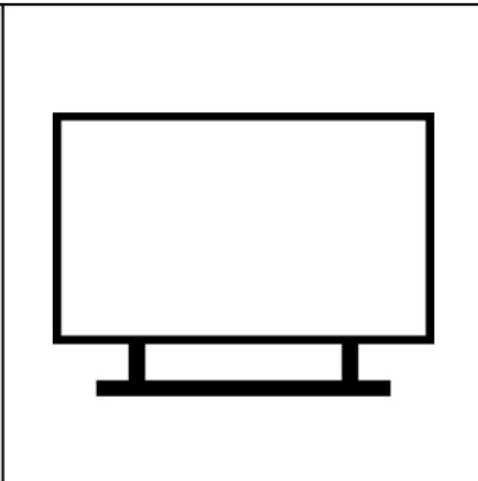
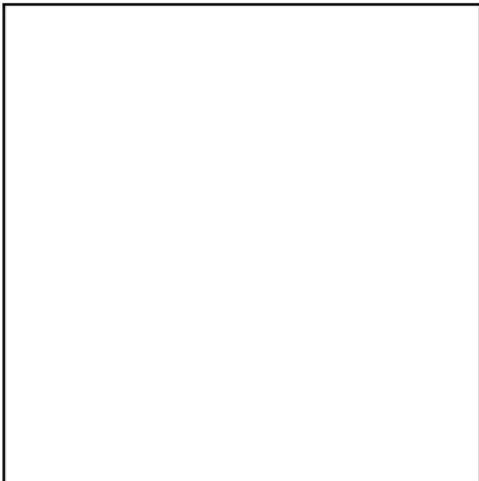


2)



Part 2


Draw 1 object that is narrower and 1 that is wider



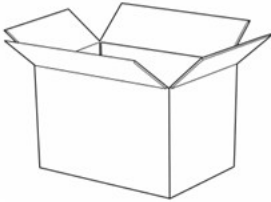
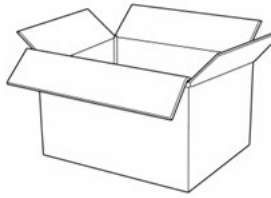
Comparing Length

Think

Compare the objects below. Which one is...

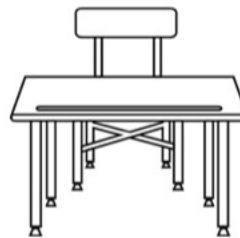
	Deeper	Shallower	Taller
	Shorter	Wider	Narrower
	Deeper	Shallower	Taller
	Shorter	Wider	Narrower

 CN Tower	Deeper	Shallower	Taller
	Shorter	Wider	Narrower
 Hotel	Deeper	Shallower	Taller
	Shorter	Wider	Narrower

	Deeper	Shallower	Taller
	Shorter	Wider	Narrower
	Deeper	Shallower	Taller
	Shorter	Wider	Narrower


Area

Area is how much space is taken up by an object. The area of your table or desk is how large the surface is. Does your teacher's desk have more or less area than your desk?

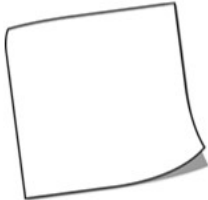



Question: Circle which surface has more area

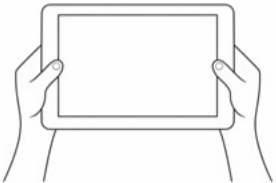

1)





2)



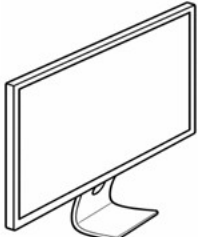

3)



5)



6)



PREVIEW





Exit Cards

Cut Out Cut out the exit cards below and have students complete them at the end of class

Name: _____

Mark


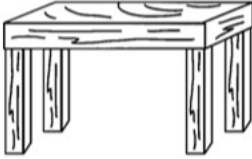

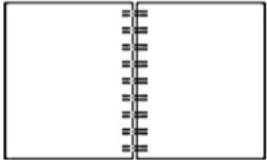
Order from smallest to largest area.
Label 1-4.

Name: _____

Mark


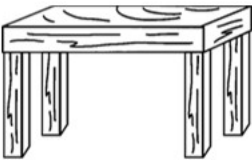

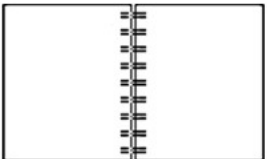
Order from smallest to largest area.
Label 1-4.

Name: _____

Mark




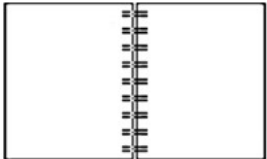
Order from smallest to largest area.
Label 1-4.

Name: _____

Mark

Order from smallest to largest area.
Label 1-4.

PREVIEW

Activity – Area of Objects

Objective

What are we learning more about?

The objective of this activity is for students to understand the basic concept of area by observing and comparing different objects.

Materials

What do we need for our activity?

- ✓ Different objects (a book, a plate, or a toy)
- ✓ Crayons and paper
- ✓ Paper cut-outs in the shape of a foot (all the same size)



Method

How do we complete the activity?

- 1) Begin by explaining the concept of area and that it is the amount of space that an object covers.
- 2) Place an object on the ground and ask the children to count the number of footprints they think the object would cover.
- 3) Next, have them place the foot cut-outs on the object to see how many it takes to cover the area of the object.
- 4) Have the students draw the object on their paper. Inside the drawing, they should draw as many footprints as they counted.
- 5) Repeat this process with different objects.
- 6) Discuss the relative sizes of the areas of the different objects, based on the number of footprints.

Name: _____

Directions

Cut out the footprints below



Results

Answer the questions below

1) Draw the first object below. Then draw how many footprints fit inside.



2) Draw the second object below. Then draw how many footprints fit inside.



PREVIEW

Results

Answer the questions below

1) Order the objects from smallest area to largest. Draw them below.



2) Can you draw a different area and see how many footprints it might cover?



3) Can you imagine what would happen if we used a smaller footprint? Would we need more or fewer footprints to cover the same object?

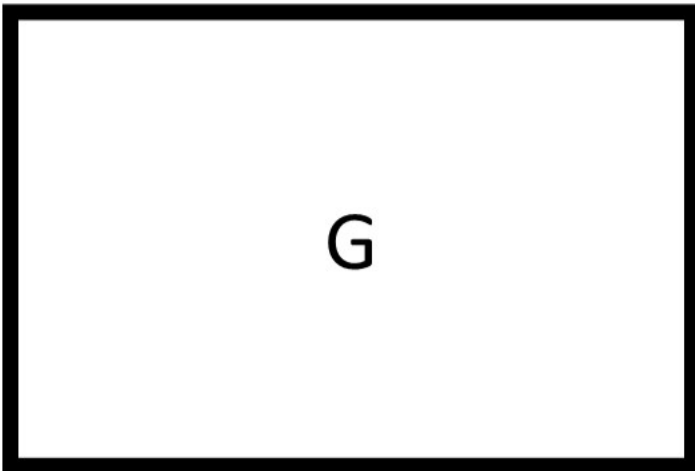
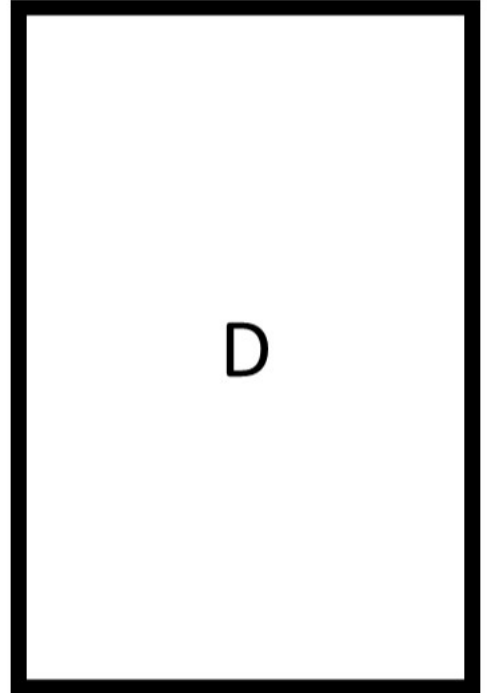
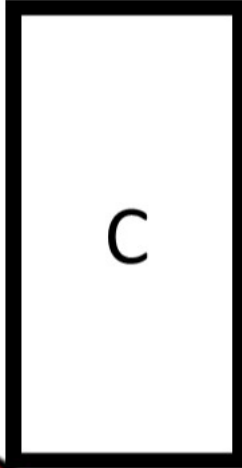


Name: _____

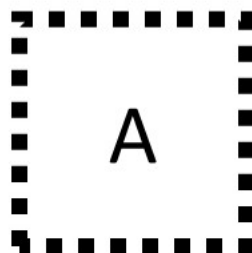
Area

Questions

Cut A out and find out how many times it fits into the other shapes



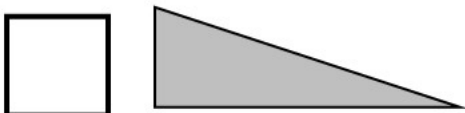
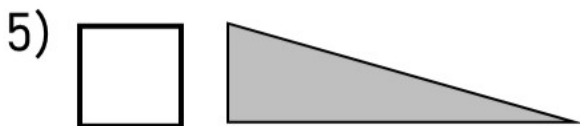
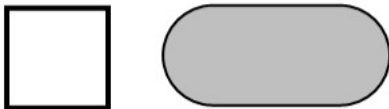
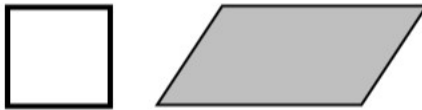
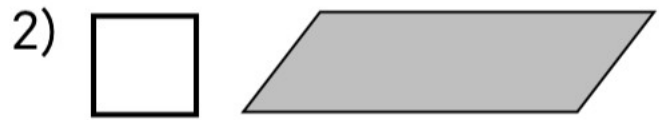
Shape	# of Times
A	
B	
C	
D	
E	
F	
G	
H	



Comparing Area – Ordering

Questions

Order the area of the shapes from smallest (1) to largest (3)



PREVIEW

Which Object Has More Mass?

Mass is the amount of matter in an object. Objects with more mass have more weight. But, weight depends on where the object is and mass is always the same.

Example - We weigh very little on the moon because gravity isn't as strong, but our mass is the same.

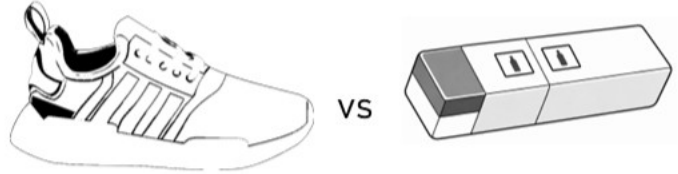
Questions

Circle which object you think has more mass

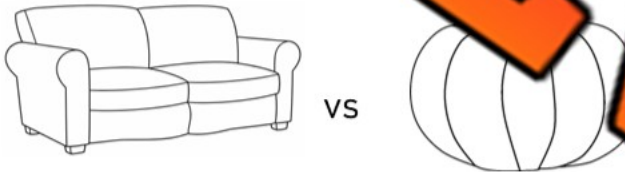
1)



2)



3)



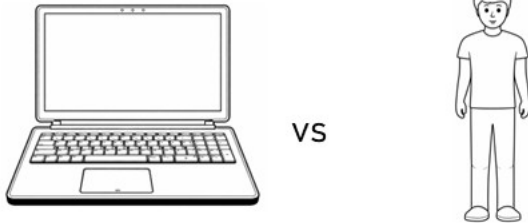
5)



6)



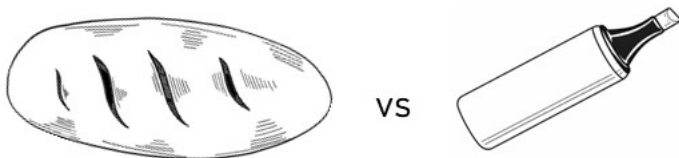
7)



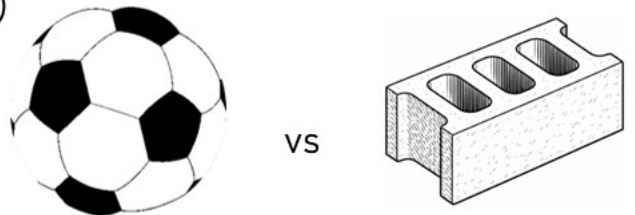
8)



9)



10)

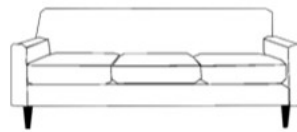
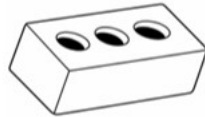


Comparing Mass – Heavy and Light

Questions

Circle whether the object is heaviest or lightest

1) The chocolate bar is the _____.



Heaviest
Lightest

2) The _____ is the _____.



Heaviest
Lightest

3) The TV is the _____.



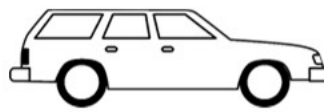
Heaviest
Lightest

4) The boot is the _____.



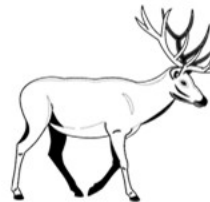
Heaviest
Lightest

5) The car is the _____.



Heaviest
Lightest

6) The deer is the _____.



Heaviest
Lightest

7) The pencil sharpener is the _____.



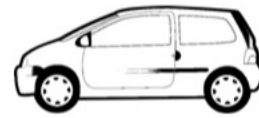
Heaviest
Lightest

Comparing Mass – Ordering Vehicles

Questions

Order the vehicles from heaviest (1) to lightest (3)

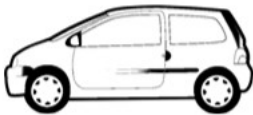
1)



2)



3)



4)



5)


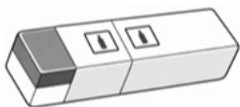
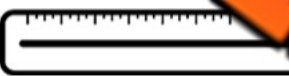
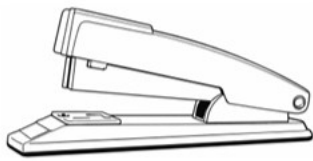





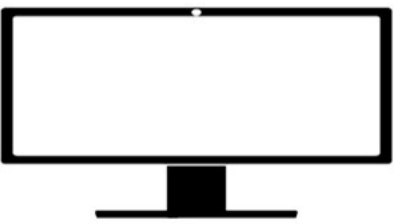
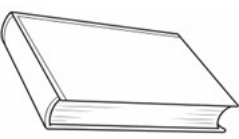
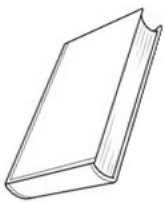


PREVIEW

Comparative Language

Questions




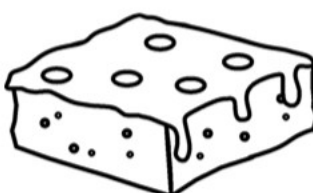
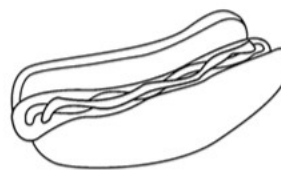



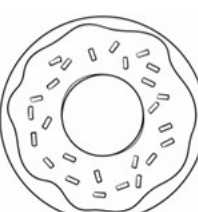



Circle the relationship between column 1 and column 2

Column 1	Comparative Language Column 1 is ____ Column 2	Column 2
	lighter than heavier than the same weight as	
	lighter than heavier than the same weight as	
	lighter than heavier than the same weight as	
	lighter than heavier than the same weight as	
	lighter than heavier than the same weight as	
	lighter than heavier than the same weight as	




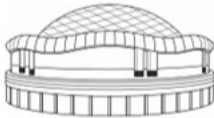


Comparative Language

Questions

Circle the relationship between column 1 and column 2

Column 1	Comparative Language Column 1 is ____ Column 2	Column 2
	the same weight as a different weight than	
	the same weight as a different weight than	
	the same weight as a different weight than	
	the same weight as a different weight than	
	the same weight as a different weight than	
	the same weight as a different weight than	

Comparing Weight - Baseball

					
Ball	Bat	Player	Stadium	Glove	Cap

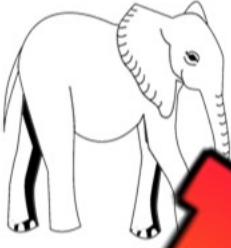





Question: Write whether the object is the shortest or the longest

1) The ball is _____ the bat	heavier than lighter than
2) The player is _____ the bat	heavier than lighter than
3) The stadium is _____ all the other things	heavier than lighter than
4) The bat is _____ the player	heavier than lighter than
5) The cap is _____ all the other things	heavier than lighter than
6) The glove is _____ the ball	heavier than lighter than
7) The player is _____ the cap	heavier than lighter than
8) The stadium is _____ the ball	heavier than lighter than

Comparing Weight – Ordering Heaviest to Lightest

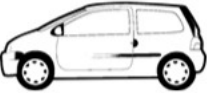




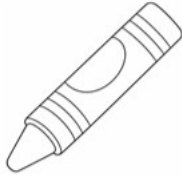
Part 1

Rank the animals from heaviest (1) to lightest (6)

					
Elephant	Bear	Mouse	Dog	Cat	Tiger


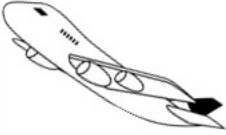
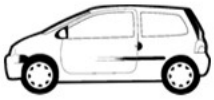



Part 2

Rank the objects from heaviest (1) to lightest (6)

					
Car	Feather	Brick	Can	Boulder	Crayon

Part 3







Rank the vehicles from heaviest (1) to lightest (6)

					
Snowmobile	Plane	Car	Skateboard	Bike	ATV

Comparing Weight – Ordering Lightest to Heaviest







Part 1

Rank the fruits from lightest (1) to heaviest (6)

					
Pumpkin	Strawberry	Apple	Pineapple	Watermelon	Blueberry







Part 2

Rank the foods from lightest (1) to heaviest (6)

					
Noodle	Steak	Hot Dog	Granola Bar	Salt G	Turkey

Part 3

Rank the objects from lightest (1) to heaviest (6)

					
Phone	Laptop	Paper	Headphones	Boat	Wheelbarrow

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Mark

Circle Yes or No for each question.

1) A book weighs less than a desk.	Yes
	No
2) My shoes are lighter than my backpack.	Yes
	No
3) My water bottle is heavier than my eraser.	Yes
	No
4) A spoon weighs the same as a book.	Yes
	No
5) A rock weighs more than a feather.	Yes
	No

Name: _____

Mark

Circle Yes or No for each question.

1) A book weighs less than a desk.	Yes
	No
2) My shoes are lighter than my backpack.	Yes
	No
3) My water bottle is heavier than my eraser.	Yes
	No
4) A spoon weighs the same as a book.	Yes
	No
5) A rock weighs more than a feather.	Yes
	No

Name: _____

Mark

Circle Yes or No for each question.

1) A book weighs less than a desk.	Yes
	No
2) My shoes are lighter than my backpack.	Yes
	No
3) My water bottle is heavier than my eraser.	Yes
	No
4) A spoon weighs the same as a book.	Yes
	No
5) A rock weighs more than a feather.	Yes
	No

Name: _____

Mark

Circle Yes or No for each question.

1) A book weighs less than a desk.	Yes
	No
2) My shoes are lighter than my backpack.	Yes
	No
3) My water bottle is heavier than my eraser.	Yes
	No
4) A spoon weighs the same as a book.	Yes
	No
5) A rock weighs more than a feather.	Yes
	No

Measuring Mass Activity

Background

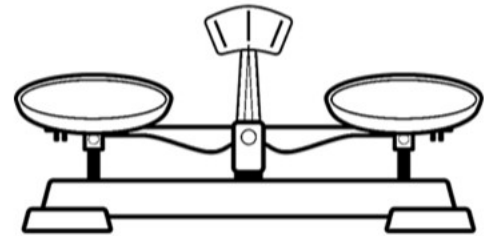
What is a pan balance?

We can use a pan balance to measure the mass of an object. A **pan balance** allows us to compare the mass of one object to the mass of another object.

Materials

What do we need?

- Pan balance
- 15 g mass
- Rolling Sh



Method

What do we do in our experiment?

1. Fill out the table below with the objects you will compare
2. Put object 1 on one side of the pan balance and object 2 on the other
3. Circle which object is heavier

Observations

Which object was heavier?

Object 1	Object 2	Heavier (1 or 2)
		2
		1 2
		1 2
		1 2
		1 2

Changing Objects

Changing Objects

We can change objects physically or chemically. A **physical change** is when only the look of the object has changed. A **chemical change** is when we change the object so that it is a new object.

Examples of Physical Changes

- ✓ Stretching an object
- ✓ Twisting an object
- ✓ Bending an object
- ✓ Cutting an object



Examples of Chemical Changes

- ✓ Cooking or heating objects
- ✓ Burning an object like wood
- ✓ An object rusting
- ✓ A food rotting

Draw

Draw examples of objects that have changed physically

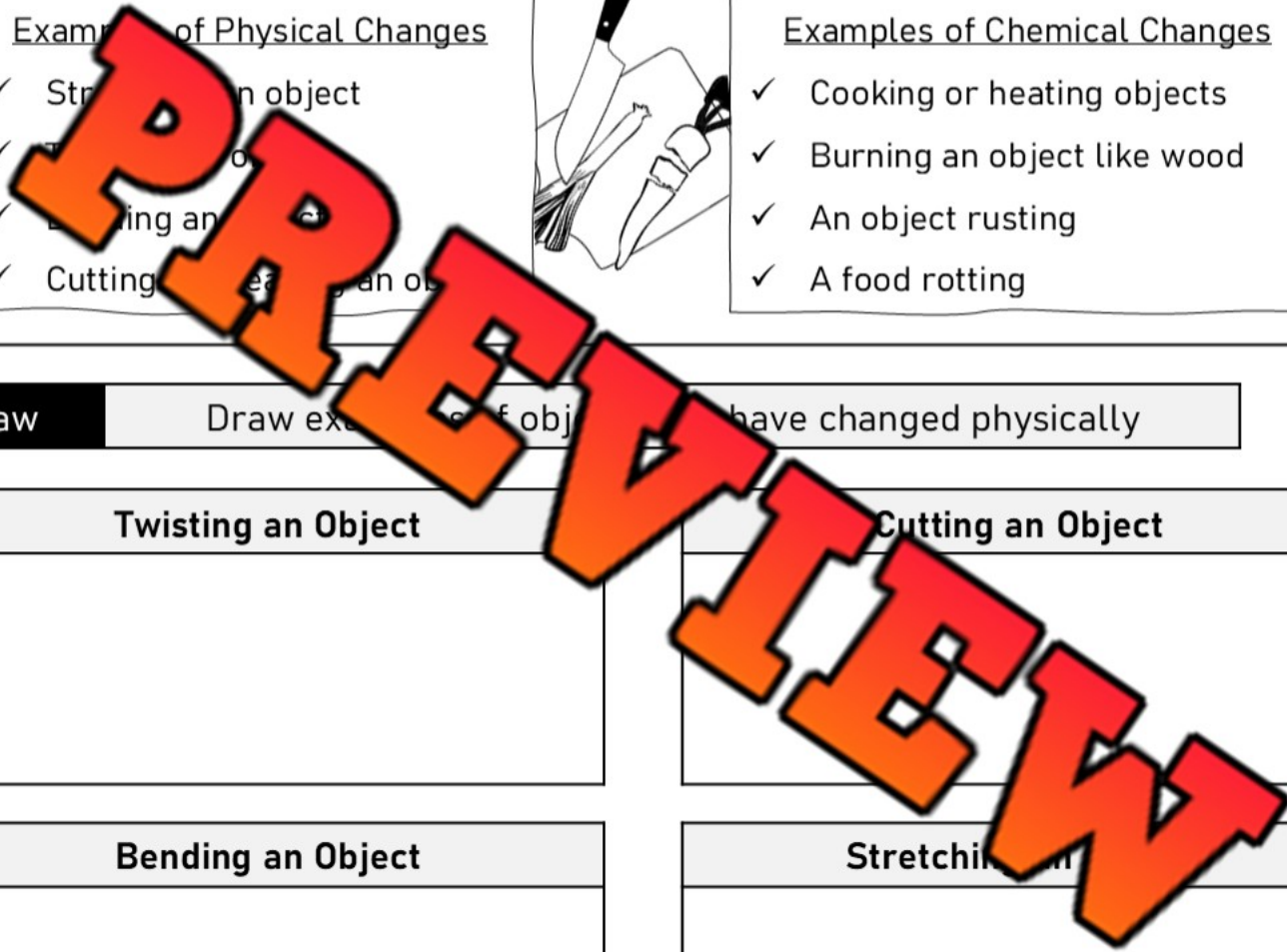
Twisting an Object

Cutting an Object

Bending an Object

Stretching an Object

Breaking an Object



Activity – Physical or Chemical Change

Directions

Is the picture showing a chemical or physical change?

Cutting Hair



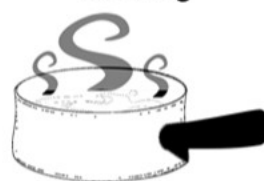
Physical Chemical

Burning



Physical Chemical

Boiling



Physical Chemical

Chopping



Physical Chemical

Baking



Physical Chemical

Freezing



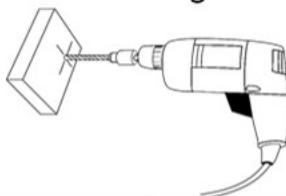
Physical Chemical

Boiled Egg



Physical Chemical

Drilling



Physical Chemical

Sawing



Physical Chemical

Rotting Food



Physical Chemical

Fireworks



Physical Chemical

Mixing



Physical Chemical

Bending Objects


To bend an object means to change its shape by making it curved or angled instead of straight. When you bend something, you make it move by applying force, but you don't break it or make it completely different, you just change its shape a little bit.

Many things that are thin or flexible can be bent. Here are some examples:

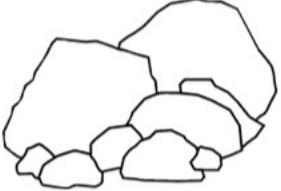
- A pipe cleaner
- A spoon (the thin part where you hold it)
- A paper strip
- A piece of fabric

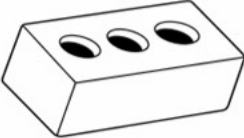
Directions


Can the object be bent?

	
Yes	No


	
Yes	No


	
Yes	No

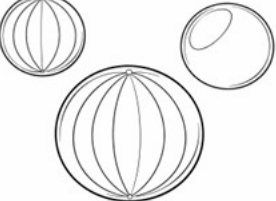
	
Yes	No

	
Yes	No

	
Yes	No

	
Yes	No

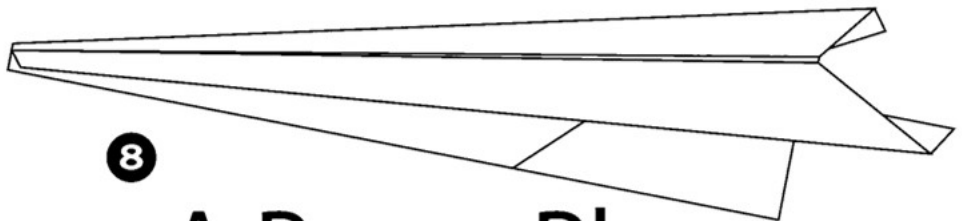
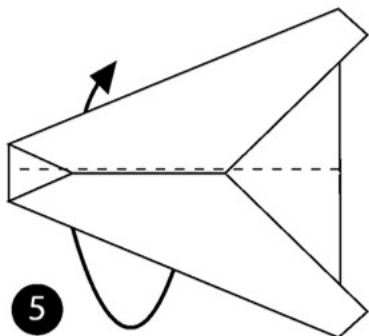
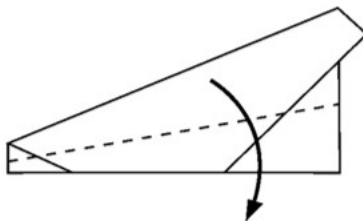
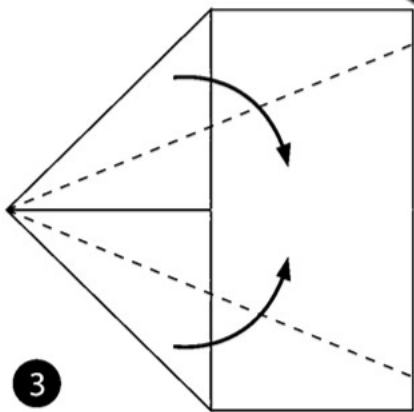
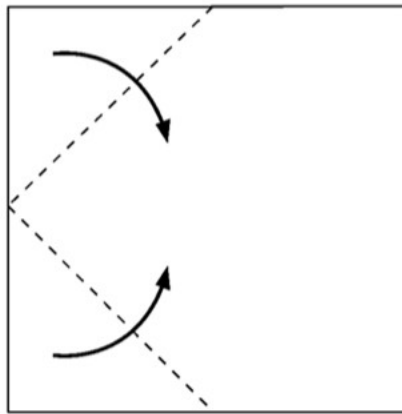
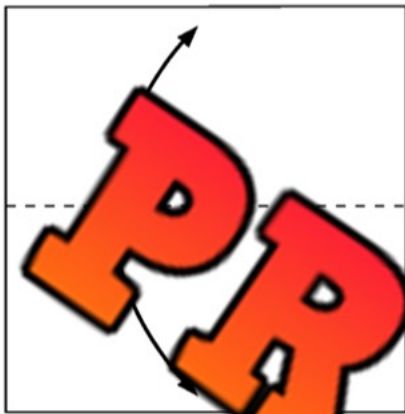
	
Yes	No

	
Yes	No

Activity – Physical Change – Bending/Folding

Instructions

Bend and fold the paper to make a paper airplane



PREVIEW

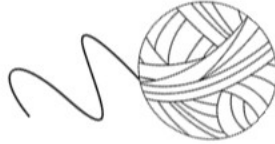
A Paper Plane

Twisting Objects

To twist an object means to turn it around many times, like when you're turning a knob on a door or wringing out a wet towel. It's like spinning the object around and around in place, making it take a different shape, almost like a spiral.

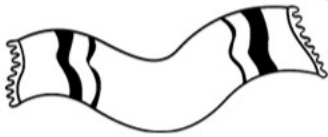
Many things that are thin or flexible can be twisted. Here are some examples:

- Paper
- String
- Washcloth
- Rubber band



Directions

Object twisted?



Yes

No



Yes



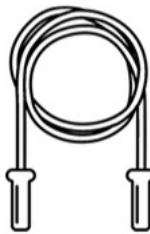
Yes

No



Yes

No



Yes

No



Yes

No



Yes

No



Yes

No



Yes

No

Exit Cards

Cut Out Cut out the exit cards below and have students complete them at the end of class

Name: _____

Mark

Draw 1 object that twists and
1 that does not.

Name: _____

Mark

Draw 1 object that twists and
1 that does not.

Name: _____

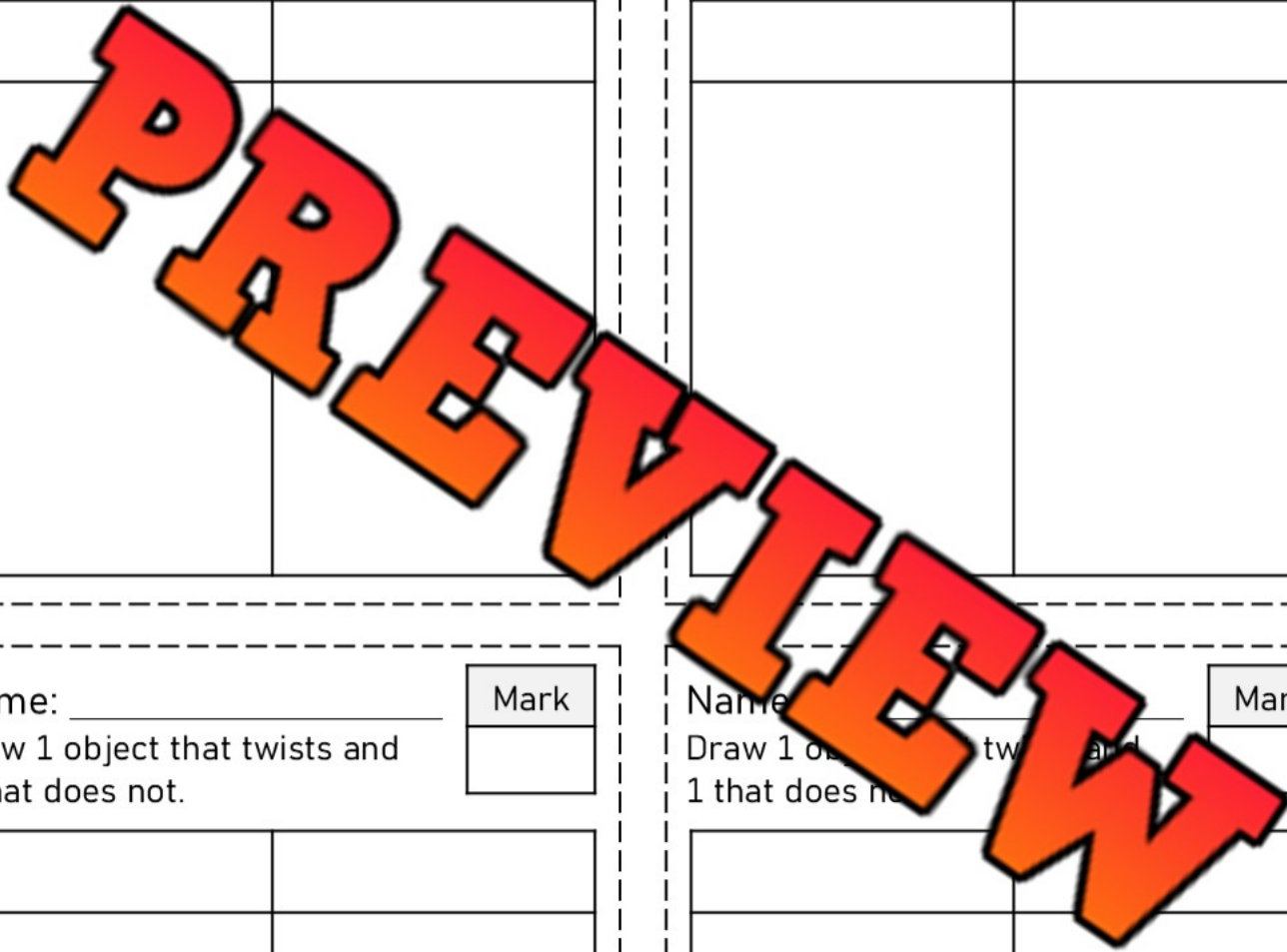
Mark

Draw 1 object that twists and
1 that does not.

Name: _____

Mark

Draw 1 object that twists and
1 that does not.



Activity – Twisty Sculptures

Objective

What are we learning more about?

The aim of this activity is for students to understand the concept of twisting and to create a fun and unique sculpture using objects that can be twisted.

Materials

What do we need for our activity?

- ✓ Variety of objects that can be twisted such as pipe cleaners, rubber bands, and soft, thin wires.
- ✓ Play dough or clay.
- ✓ Cardboard base.
- ✓ Safety scissors.

Method

How do we complete this activity?

- 1) Begin by explaining what it means to twist and show them a few examples using the materials provided.
- 2) Give each student a cardboard base, a few pieces of play dough or clay, and a selection of twistable materials.
- 3) Encourage the students to create their own sculptures by twisting the materials and attaching them to the base with the play dough or clay. They can twist the materials together, twist them into spirals, or come up with their own twisting techniques.
- 4) Once they have finished their sculptures, have a gallery walk where each student can show off their artwork and explain how they twisted the materials to create it.
- 5) Afterward, discuss as a class the different ways the materials could be twisted and how that changed the way their sculptures looked.



Results

Answer the questions below

1) What objects did you choose for your sculpture?

2) Describe your sculpture below.

PREVIEW

3) Were some materials harder to twist? Write them below.

Hard

Easy

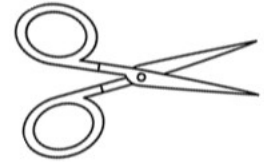
--	--

Cutting Objects

Cutting an object means dividing it into two or more pieces using a tool like scissors or a knife. When we cut an object, we change the object. It will get shorter in length and will weigh less.

Objects that can be cut are often soft or thin. Here are some examples:

- Paper
- String
- Play dough
- Soft fruits like banana or apple (with an adult's help)



Questions _____ questions below

1) Draw tools that are used to cut objects?

2) Can the object be cut? Yes or no?

1) Paper	Yes	No
2) Leaf	Yes	No
3) Rock	Yes	No
4) Steel	Yes	No
5) Bread	Yes	No
6) Computer	Yes	No
7) Fruit	Yes	No
8) Wooden block	Yes	No

Activity – Cutting Objects Safely

Objective

What are we learning more about?

The objective of this activity is for students to explore the concept of cutting using different safe tools, and to compare how different tools are suited for different materials.

Material

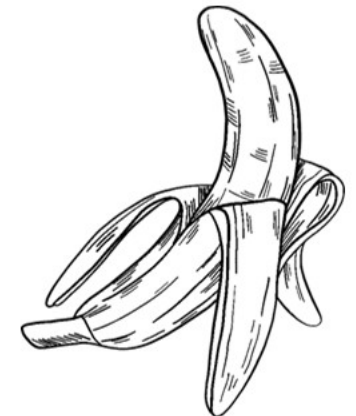
What do we need for our activity?

- ✓ Different safe cutting tools: safety scissors, plastic knife, playdough cutting tool
- ✓ A range of safe materials to cut: playdough, soft fruit like a banana, string

Method

How do we complete the activity?

- 1) Begin by explaining what it means to cut an object and that today they will be using different tools to cut different things. Review the safety rules for each tool.
- 2) Lay out the different materials and cutting tools.
- 3) Demonstrate how to use each tool safely to cut the different materials.
- 4) Have the students take turns using the different tools to cut the materials. Encourage them to observe and compare how each tool works with each material.
- 5) Ask them to compare which tool was easiest to use for each material and which was the hardest.



Results

Answer the questions below

1) Which tool was best at cutting the soft fruit? Which was the worst?

Best	Worst

2) Which tool was best at cutting the play dough? Which was the worst?

	Worst

3) Which tool was best at cutting the paper? Which was the worst?

Best	Worst

4) Which tool was best at cutting the string? Which was the worst?

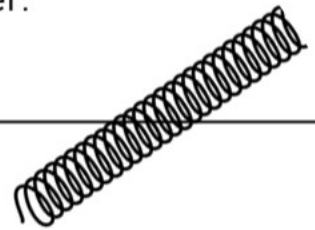
Best	Worst

Stretching an Object

To "stretch" means to pull on something so that it becomes longer or wider. When we stretch an object, we're trying to make it take up more space from one end to the other. Imagine pulling on a rubber band. When you pull on both ends, it gets longer. That's stretching!

Objects that can be stretched often have some flexibility. Here are a few examples:

- Rubber bands: You can stretch them out to make them longer.
- Slime and dough: You can pull on it and watch it stretch.
- A spring: When you pull a spring, it stretches out.



Question Read the question below

What happens when you stretch an object? Circle your answers.

It gets longer	It gets shorter	It could get wider
It could get narrower	It will weigh more	It will weigh less

Directions Can the object be stretched?

Yes	No
-----	----

Yes	No
-----	----

Yes	No
-----	----

Yes	No
-----	----

Yes	No
-----	----

Yes	No
-----	----

Activity: Stretch It Out!

Objective

What are we learning more about?

The objective of this activity is for students to explore the concept of stretching by manipulating a variety of objects and observing the changes.

Materials

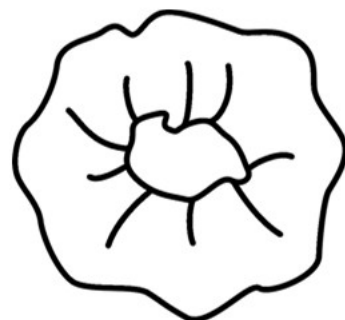
What do we need for our activity?

- ✓ Small objects that can be stretched: Rubber bands, balloons, slime or playdough, a spring, hair ties, etc.
- ✓ Objects that cannot be stretched: A book, a pencil, a small toy, a plastic water bottle, Lego bricks, etc.

Method

How do we complete the activity?

- 1) Start by explaining what it means to stretch an object. Use an object, like a rubber band or a piece of playdough, to demonstrate.
- 2) Distribute the worksheet and explain that the students will be testing different objects to see if they can be stretched or not.
- 3) Divide the class into pairs and give each pair a set of objects. Make sure each set includes objects that can and cannot be stretched.
- 4) Have the students take turns trying to stretch each object in their set. They should mark on their worksheet whether each object can or cannot be stretched.
- 5) Once all pairs have finished testing their objects, discuss the results as a class. Which objects could be stretched? Which ones couldn't? Were there any surprises?



Results**What happened?**

Can you stretch the object?

a) Rubber band	Yes	No
b) Balloon	Yes	No
c) Book	Yes	No
d) Pen	Yes	No
e) T	Yes	No
f) Playdough	Yes	No
g) Lego brick	Yes	No
	Yes	No
	Yes	No

Questions

Answer the questions below.

1) Draw other objects that can be stretched below.

2) Draw other objects that can't be stretched below.


Breaking Objects


Breaking is when something is divided into parts, often by force or accident, and it's no longer in its whole form. For example, when you have a whole cookie and you split it into two pieces, you have broken the cookie.

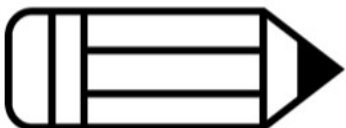
Different objects can be broken in different ways. A glass can break if it falls on the floor. A toy might break if it is stepped on. A stick can break if you bend it too much. Some things break easily, like a fragile ornament. Other things are very hard to break, like a big rock.





Directions: Circle if easy to break?


	
Yes	No

	
Yes	No

	
Yes	No

	
Yes	No

	
Yes	No

	
Yes	No

Write and Draw When have you broken something? What did you break?

<hr/> <hr/> <hr/>	
-------------------	--

Activity: Changing Objects

Objective

What are we learning more about?

The aim of this activity is for students to understand that objects can be changed in a variety of ways, such as bending, twisting, stretching, cutting, and breaking.

Materials

What do we need for our activity?

- ✓ The following objects: paper clips, straws, rubber bands, clothespins, and dry pasta noodles
- ✓ The recording sheet on the back of the page



Method

How do we complete the activity?

- 1) Begin the lesson by explaining that objects can be changed in different ways, like bending, twisting, stretching, cutting, and breaking.
- 2) Show each object and ask the students to predict what will happen if you try to bend, twist, stretch, cut, or break it. Record their predictions.
- 3) Put students in groups or pairs. Give each group a set of the objects. Have them test whether each object can be changed in the ways mentioned above.
- 4) Have students complete the back of the page by drawing what some of the objects looked like before and after they were changed.
- 5) Discuss how the actual outcomes matched up with the students' predictions.

Observations

Circle whether each object could be changed in the ways below

Paper Clip	Stretched	Twisted	Cut	Bended	Broken
A Straw	Stretched	Twisted	Cut	Bended	Broken
A Rubber Band	Stretched	Twisted	Cut	Bended	Broken
Pipe C	Stretched	Twisted	Cut	Bended	Broken
	Stretched	Twisted	Cut	Bended	Broken
Pasta	Stretched	Twisted	Cut	Bended	Broken

Results

Answer the questions below

1) Draw an object before and after it was bent?

Before	After

2) Can you draw an object before and after it was cut?


Before	After


Changing Objects

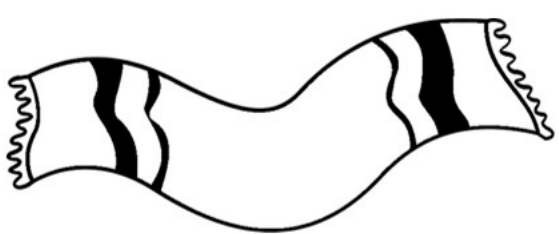
When we change objects by cutting, breaking, twisting, bending or stretching them, we change their shape, weight, length and area.

Directions

Draw the pictures below after they have been changed

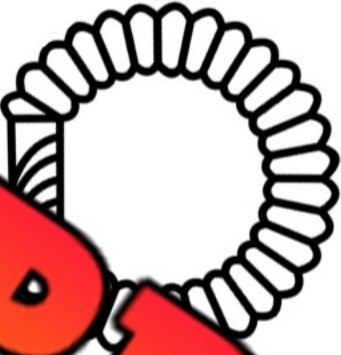
Before Being Cut	After Being Cut
	

Before Being Bent	After Being Bent
	

Before Being Twisted	After Being Twisted
	

Directions

Draw the pictures below after they have been changed

Before Being Stretched	After Being Stretched
	

Before Being Broken	After Being Broken
	

Think

How do objects change when they are cut, bent, stretched, or twisted?

Stretched	Bigger	Smaller	Heavier	Lighter
Broken	Different Shape	Same Shape	Heavier	Lighter
Twisted	Different Shape	Same Shape	Heavier	Lighter
Bent	Different Shape	Same Shape	Bigger	Smaller
Cut	Bigger	Smaller	Heavier	Lighter

Activity: Changing Objects - Textures

Objective

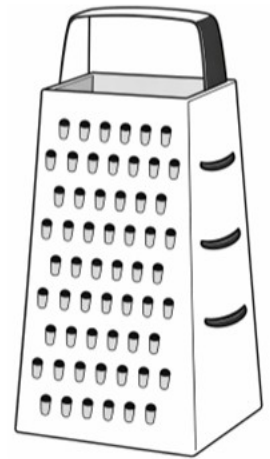
What will you learn?

The objective of this activity is to help students understand how the texture of an object can be changed through a hands-on, interactive process.

Materials

What do we need for our experiment?

- 1) A variety of fruits (such as bananas, oranges, and apples)
- 2) Plastic knife (safety)
- 3) Grater
- 4) Plastic zip-lock bags



Method

How do we complete the experiment?

- 1) Begin the activity by explaining what texture means. Texture is the way something feels when we touch it.
- 2) Ask students to touch the different fruits and describe how they feel. Are they smooth, rough, bumpy, or squishy?
- 3) Split the class into small groups and distribute the materials to each group.
- 4) With adult supervision, have the students cut a piece of fruit in half with the plastic knife. How has the texture changed? Is the inside different from the outside?
- 5) Now, have them place a piece of the fruit into a zip-lock bag and mash it up. Once it's mashed, they can feel the bag. How has the texture changed now?
- 6) If possible, grate a piece of fruit (like the apple). This should be done by an adult, but the students can feel the grated fruit (within the bag for cleanliness) to experience another texture change.
- 7) Ask students to draw pictures of the fruits before and after the texture changes. They can use crayons to try and show the different textures in their drawings.

Results

Answer the questions below

1) Which fruit did you feel first? Draw it or write it below.

2) How did it feel before you changed it?

Bumpy

Smooth

Rough

Hard

Soft

3) How did it feel after you changed it?

Bumpy

Smooth

Rough

Hard

Soft

1) Which fruit did you feel next? Draw it or write it below.

2) How did it feel before you changed it?

Bumpy

Smooth

Rough

Hard

Soft

3) How did it feel after you changed it?

Bumpy

Smooth

Rough

Hard

Soft

Coding - Making Objects

Directions

Follow the code to design a hot air balloon

run program

cut out all the shapes

paste the balloon in the middle

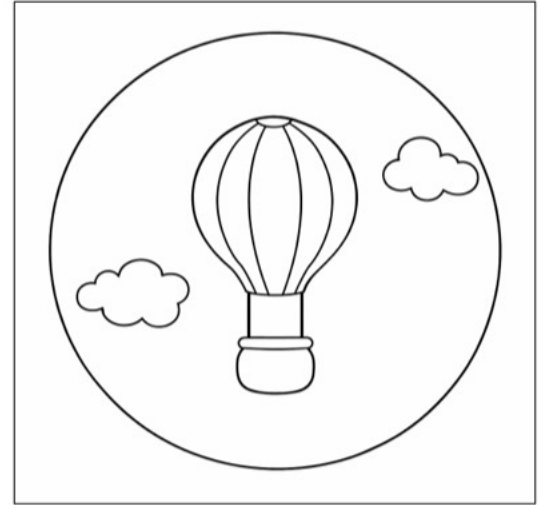
paste the stripes on the balloon

paste the bucket on the top of the page

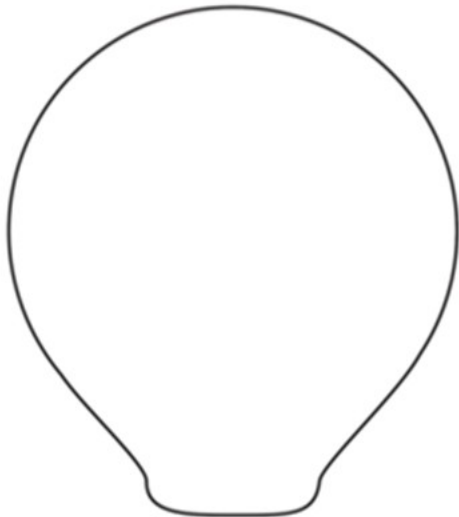
paste the ropes below the balloon

paste the clouds to the sides

paste the top of the bucket



PREVIEW



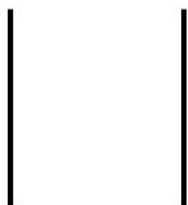
Balloon



Stripe



Top



Ropes



Cloud



Cloud

Directions

Follow the code to design a rocket

run program

cut out all the shapes

paste the rocket in the middle

paste the stripes on the rocket

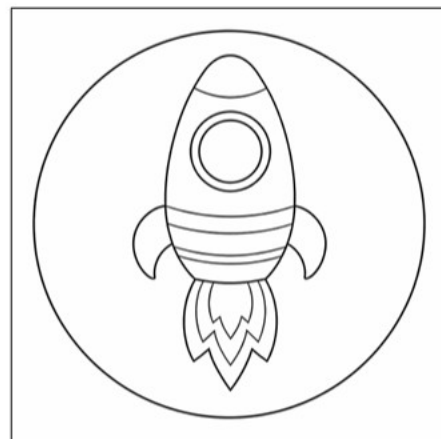
paste the feet on the rocket

paste the big flame on the bottom

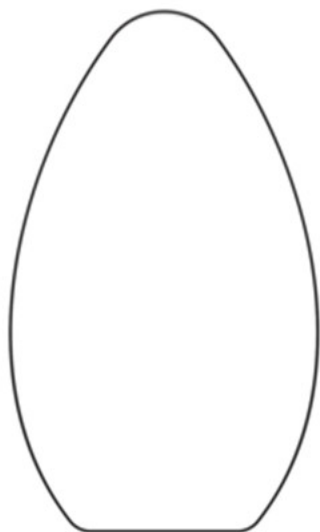
paste the small flame on the big flame

paste the circle about the stripes

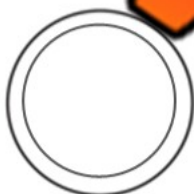
paste the top part on the top



PREVIEW



Rocket



Circle



Big Flame



Foot



Big Stripe

Foot



Small Flame



Top



Medium Flame



Small Stripe

Directions

Follow the code to design a rocket

run program

cut out all the shapes

paste the plane on the paper

paste the bottom below the plane

paste the wheel on the bottom part

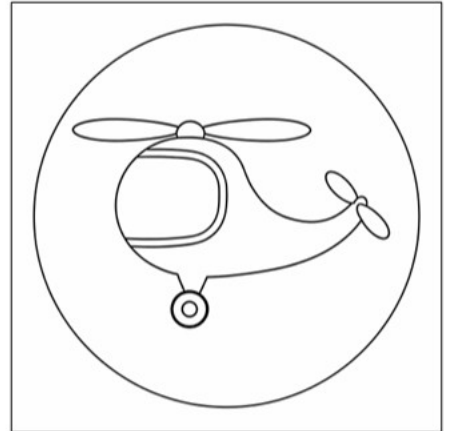
paste the window on the front

draw the window outline around the window

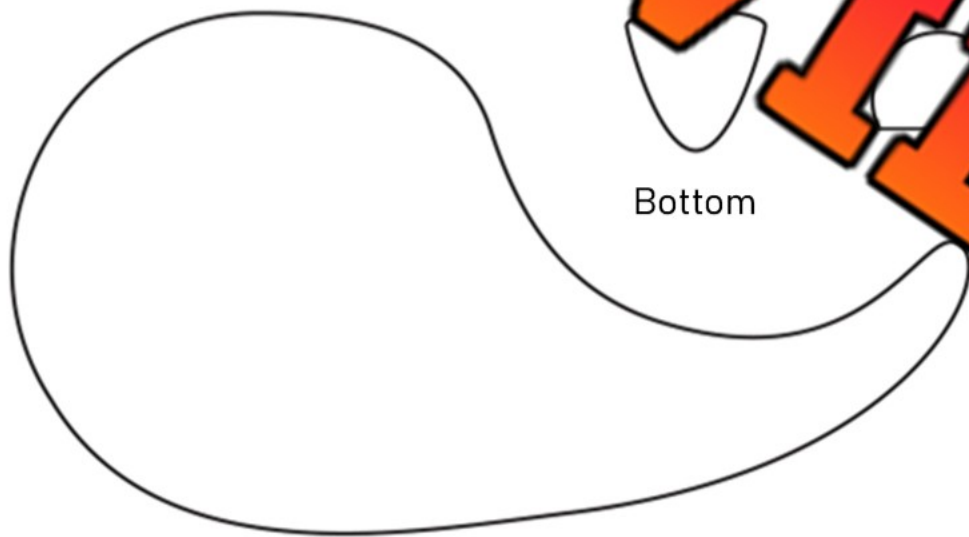
paste the wings on the back

paste the top line to the top part

paste the big wings on the top part



PREVIEW



Bottom



Window Outline

Plane



Small Wing



Wheel



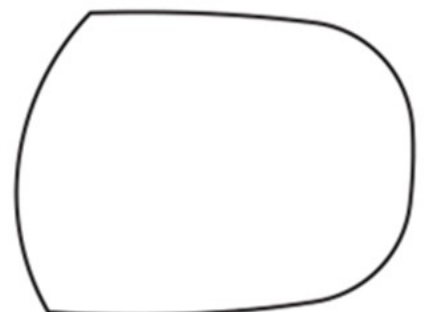
Small Wing



Big Wing



Big Wing



Window

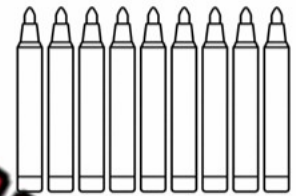
Activity: Making a Pencil Holder

You can build a pencil holder out of many different materials. Choose materials that you have to make a pencil holder that can stand on its own and hold pencils inside.

Materials

What do we need for our activity?

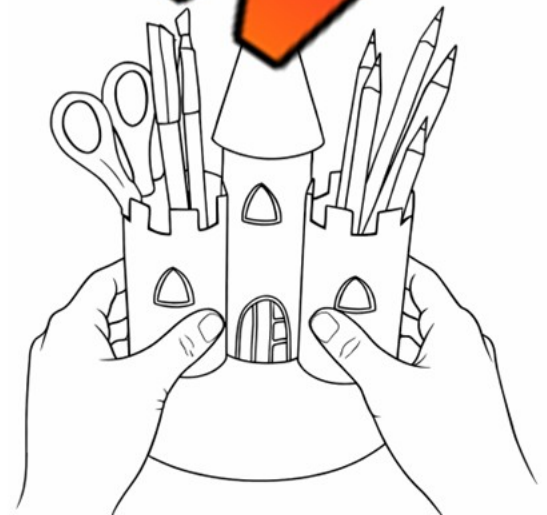
- ✓ Materials for the frame of the holder. The options below will work
 - ✓ Toilet paper rolls
 - ✓ Mason jars
 - ✓ Plastic bottle - soda or juice
- ✓ Paper to cover the frame
- ✓ Glue, tape, or hot glue to secure paper to the frame
- ✓ Materials to decorate
 - ✓ Ribbons
 - ✓ Stickers
 - ✓ Markers, crayons, paint



Method

How do we complete the activity?

- 1) Bring materials in and let students see what they have to work with
- 2) Look up pictures of homemade pencil holders to help the planning phase
- 3) Make a plan on the back of this page of what materials you will use
- 4) Make a rough copy of the design you will use on the back of the page
- 5) Begin construction!



Plan

Plan your pencil holder below

1) What materials will you use to make your pencil holder?

Cardboard	Paper	Glass	Wood	Plastic	<u>Other</u>
-----------	-------	-------	------	---------	--------------

2) Are the materials strong enough to hold pencils up?

3) Draw a design for your pencil holder.



PREVIEW

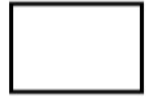
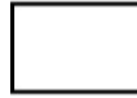
Name: _____

Unit Test – Matter: Objects

Part 1

Order the objects from narrowest to widest

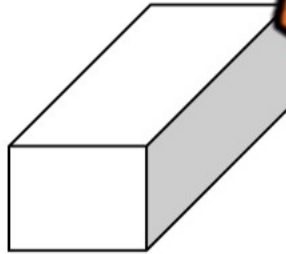
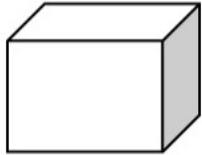
1)



Part 2

Write the objects

1)



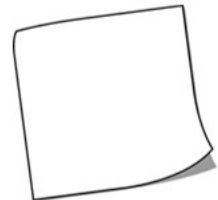
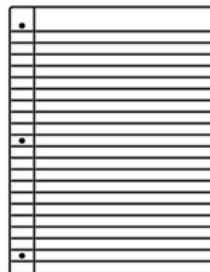
Part 3

Circle which surface has more area

1)

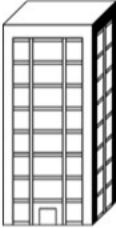


2)




Part 4

Compare the objects below. Which one is...

	Deeper	Shallower	Taller
	Shorter	Wider	Narrower
	Deeper	Shallower	Taller
	Shorter	Wider	Narrower

Part 5


Can the object be bent?



Yes	No
-----	----




Yes	No
-----	----



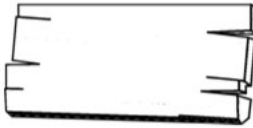
Yes	No
-----	----

Part 6

Can the object be twisted?



Yes	No
-----	----




Yes	No
-----	----




Yes	No
-----	----

Part 7


Can the object be stretched?



Yes	No
-----	----



Yes	No
-----	----



Yes	No
-----	----