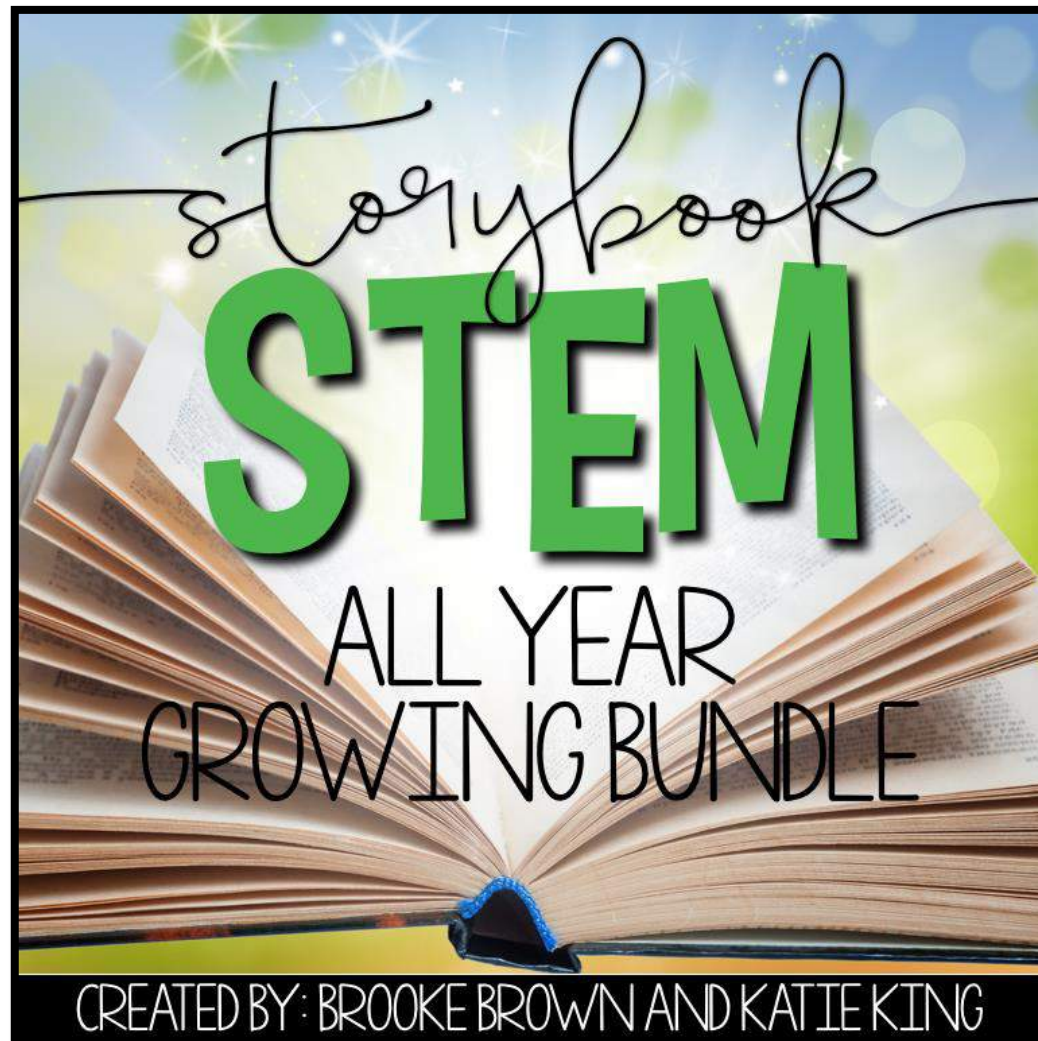
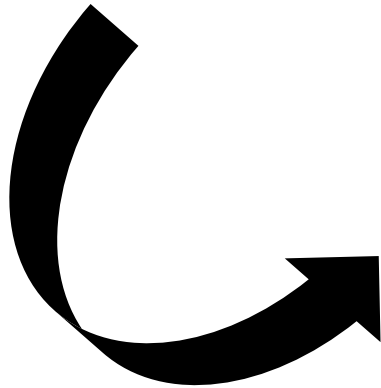


Love Storybook STEM?

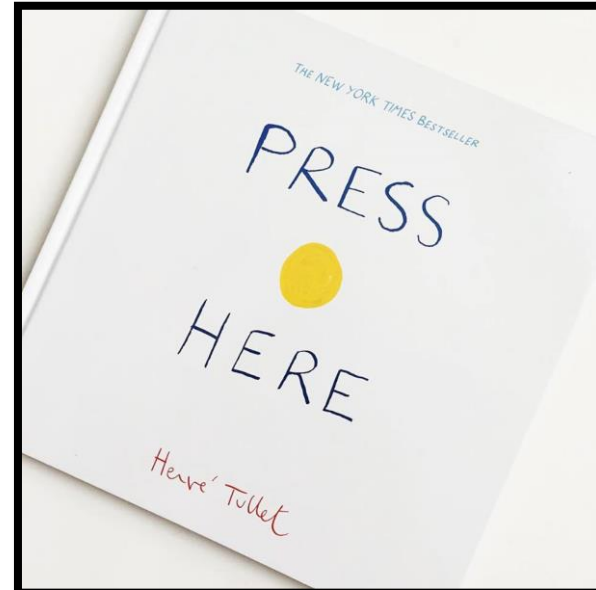
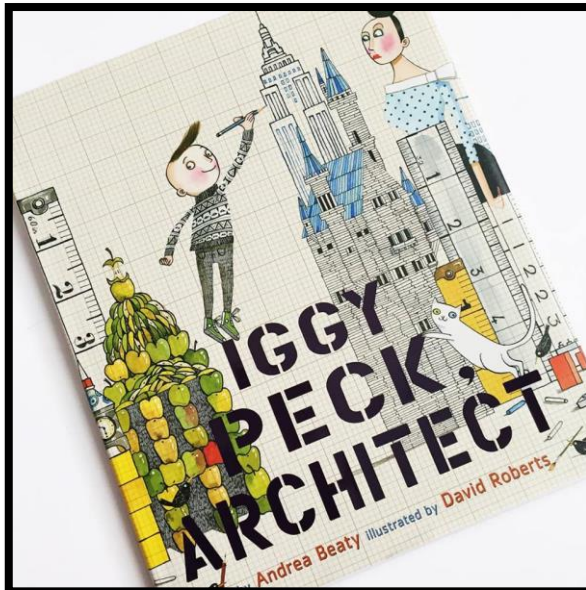
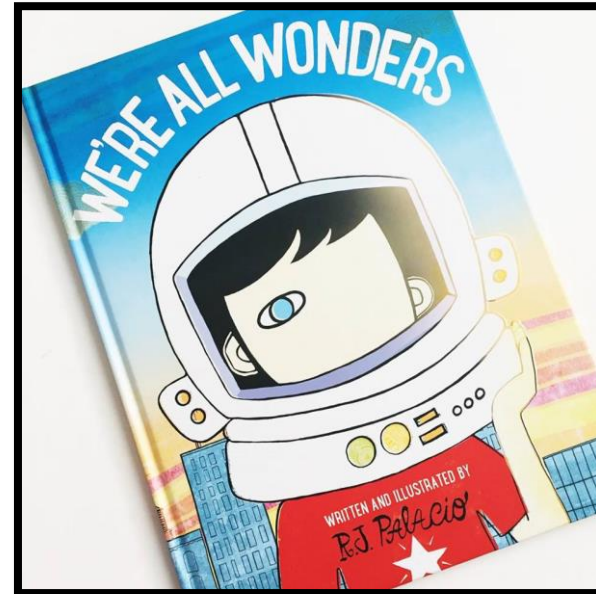
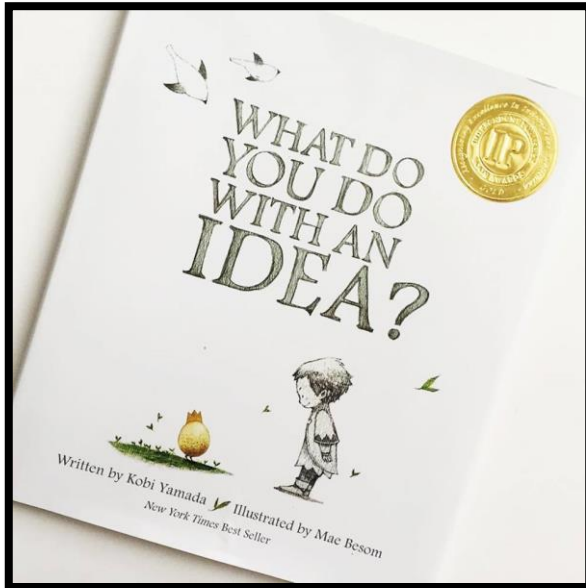
Save BIG with the All Year Bundle!

Click
Here!



August BOOK SELECTIONS

Click the pictures below to purchase each book through affiliate links on my website.



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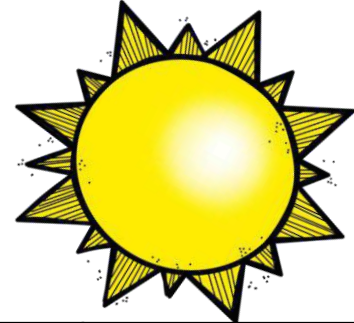
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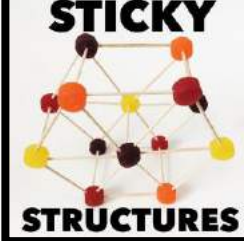
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August

Storybook STEM



Read Aloud (20 minutes)	Comprehension and Grammar (30 minutes)	Vocabulary (30 minutes)	Math (10 minutes)	STEM Whole Group Intro (10 minutes)	STEM Challenge (40 minutes)	STEM Whole Group Reflection (10 minutes)
	Story Structure and Dialogue	4 vocab words: realize, admit, protect, perspective	Analog and Digital Clocks	•Share challenge and introduce materials and vocabulary •Discuss inventions a and inventors.		•Share successes, struggles and improvements •Review science, engineering, and math skills that were practiced
	Parts of Speech and Learning from a Book	4 vocab words: ordinary, unique, galaxy, empathy	Angles	•Share challenge and introduce materials and vocabulary •Discuss parts and functions of levers.		•Share successes, struggles and improvements •Review science, engineering, and math skills that were practiced
	Characters' Feelings and Flashbacks	4 vocab words: collapsed, unusual, lecture, severe	Polygons	•Share challenge and introduce materials and vocabulary •Discuss two-dimensional and three-dimensional shapes.		•Share successes, struggles and improvements •Review science, engineering, and math skills that were practiced
	Ending Punctuation and Cause and Effect	4 vocab words: tilt, gently, bravo, sequence	Patterns	•Share challenge and introduce materials and vocabulary •Discuss actions and reactions.		•Share successes, struggles and improvements •Review science, engineering, and math skills that were practiced

Dig Deeper Into the Text!

Teacher Questions for **WHAT DO YOU DO WITH AN IDEA?**



When you worry about what people think of you, what do we call this? Why isn't it important what others think of you?

The little boy is rejected when he shows others his idea. Do you know any famous thinkers or inventors who failed before they were successful?

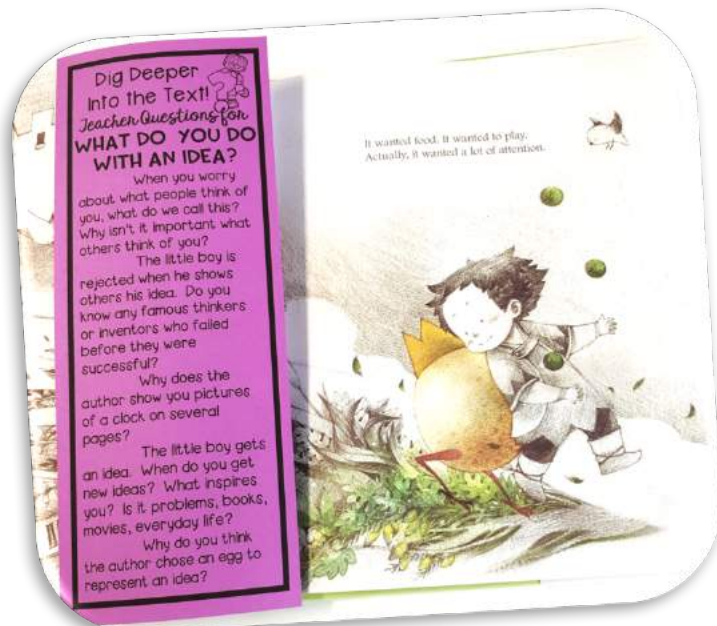
Why does the author show you pictures of a clock on several pages?

The little boy gets an idea. When do you get new ideas? What inspires you? Is it problems, books, movies, everyday life?

Why do you think the author chose an egg to represent an idea?

TEACHERS: PRINT
ON COLORED PAPER
AND LAMINATE. USE
THIS BOOKMARK
YEAR AFTER YEAR
TO HELP EXTEND
STUDENTS' THINKING!

Intended
Use

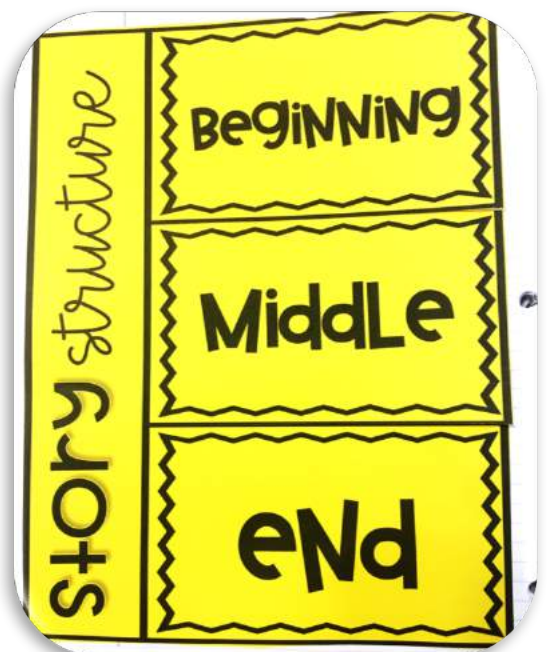
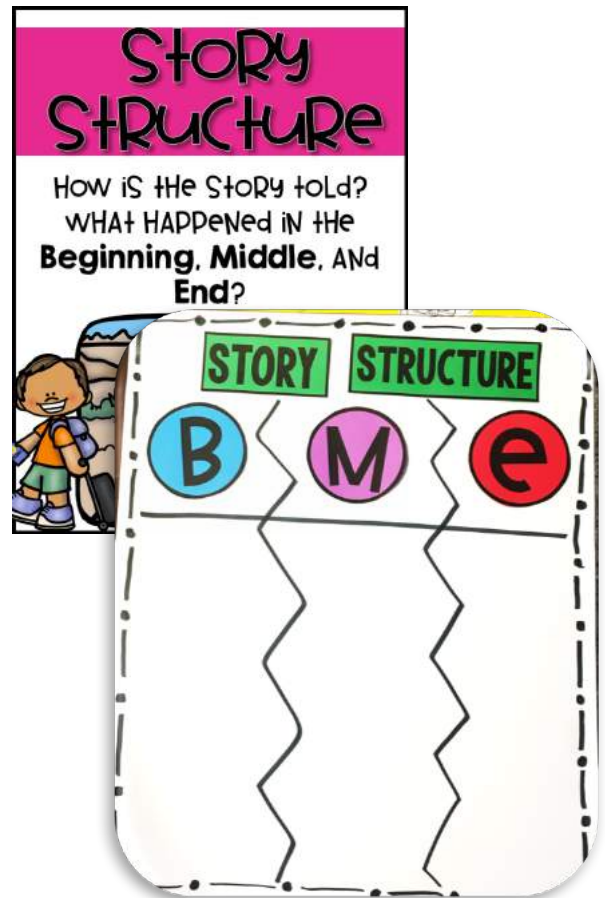


COMPREHENSION

1. After you have read the book, discuss/review what story structure is.

Talk about beginning, middle, and end. Make a whole class anchor chart to write about the events of *What do You Do With An Idea?* and put them under the correct header.

2. Use the flip flap to talk about what typically happens in the Beginning (Intro to characters, set the scene, learn problem), Middle (Events occur and character tries to solve problem), End (Character learns lesson).

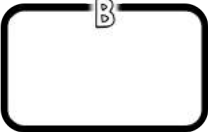
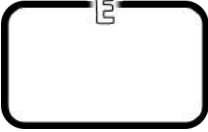


COMPREHENSION

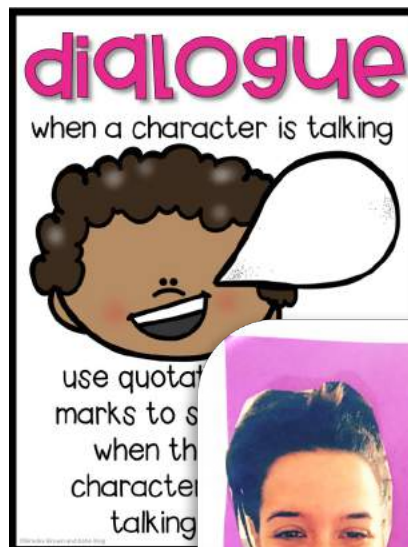
3. Have students write and draw about the beginning, middle, and end of the story.

Name: _____

Story Structure

B	M	E
		
_____	_____	_____
_____	_____	_____

4. Optional
Extension Activity
for High Flyers!
Use a picture of
the student and
let them fill in a
speech bubble
and write it below
with quotation
marks.



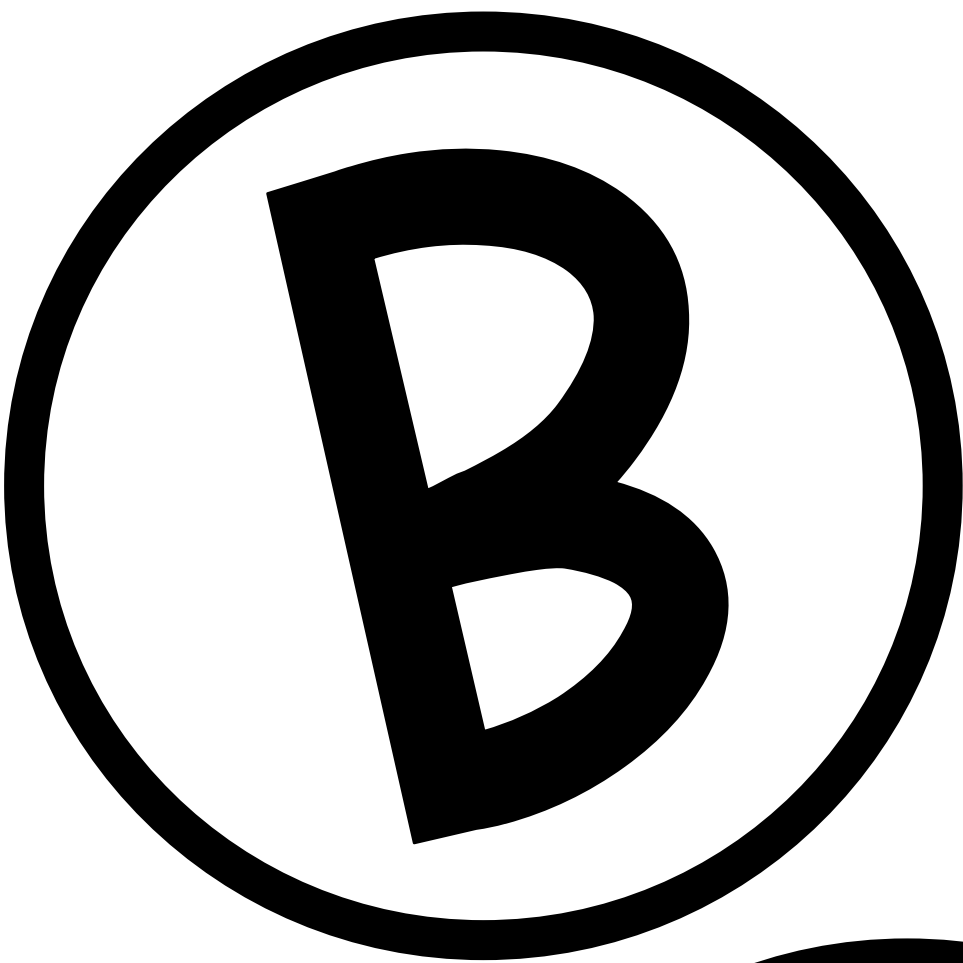
STORY STRUCTURE

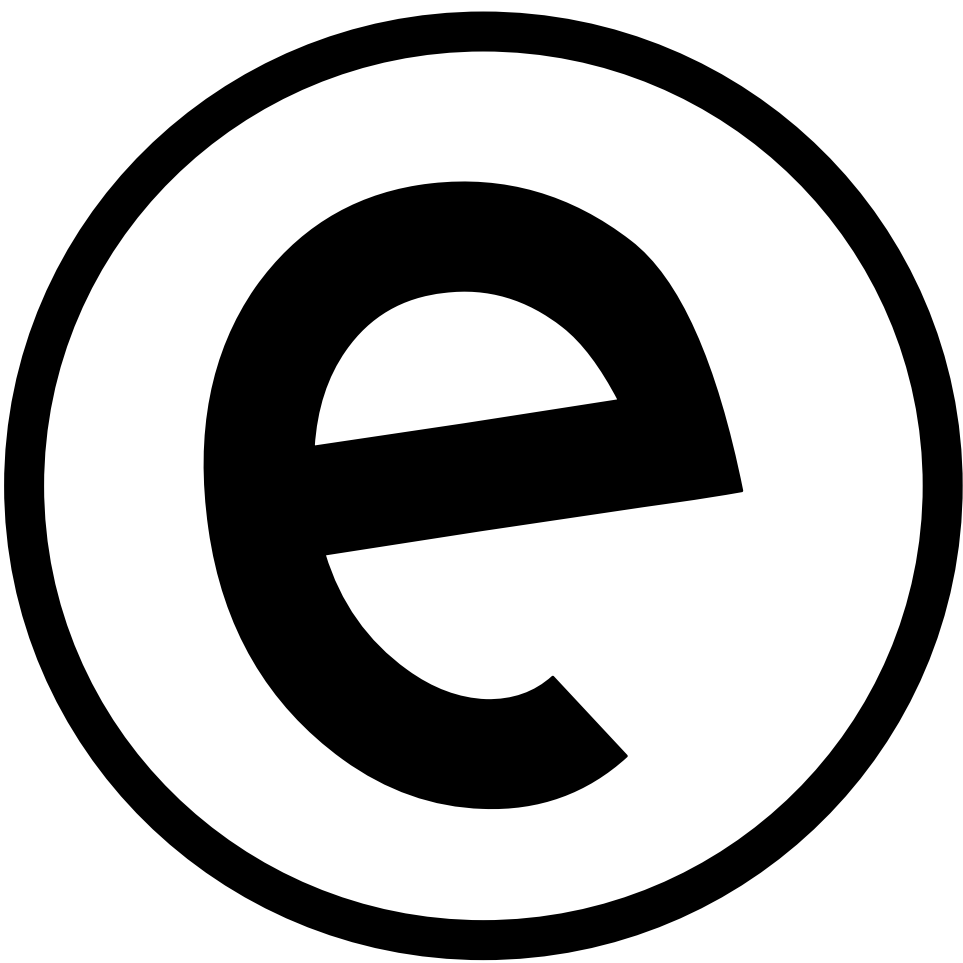
How is the story told?
WHAT HAPPENED in the
**Beginning, Middle, AND
End?**



STORY

STRUCTURE





Cut around the template. Cut between the three sections and glue down the "Story structure" section.

story structure

BeGiNNiNg

Middle

eNd

Name: _____

Story Structure

Write and draw about the beginning, middle,
end of the story.



B

M

E

Name: _____

Story Structure

Write and draw about the beginning, middle,
end of the story.



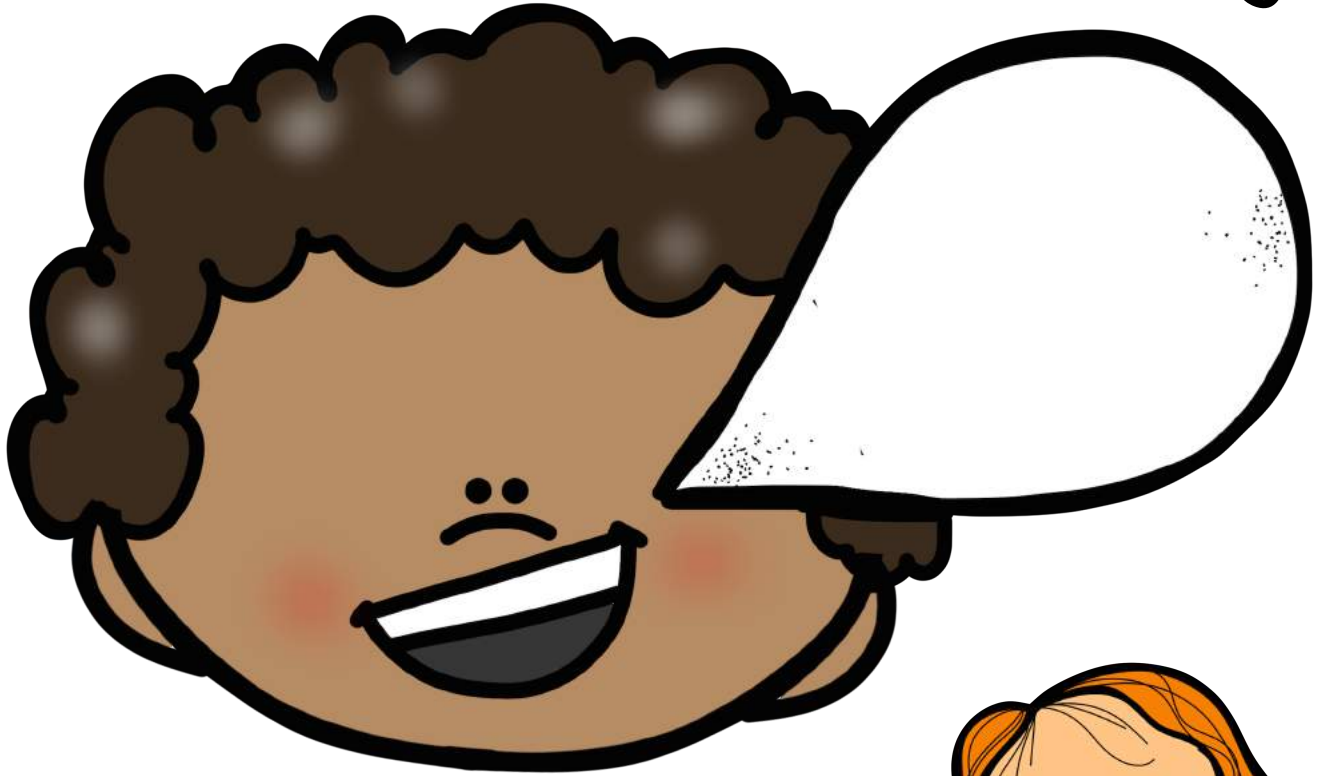
B

M

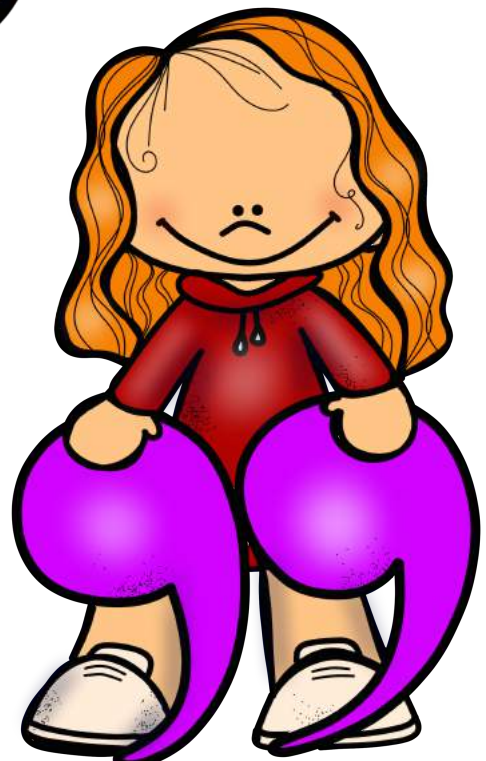
E

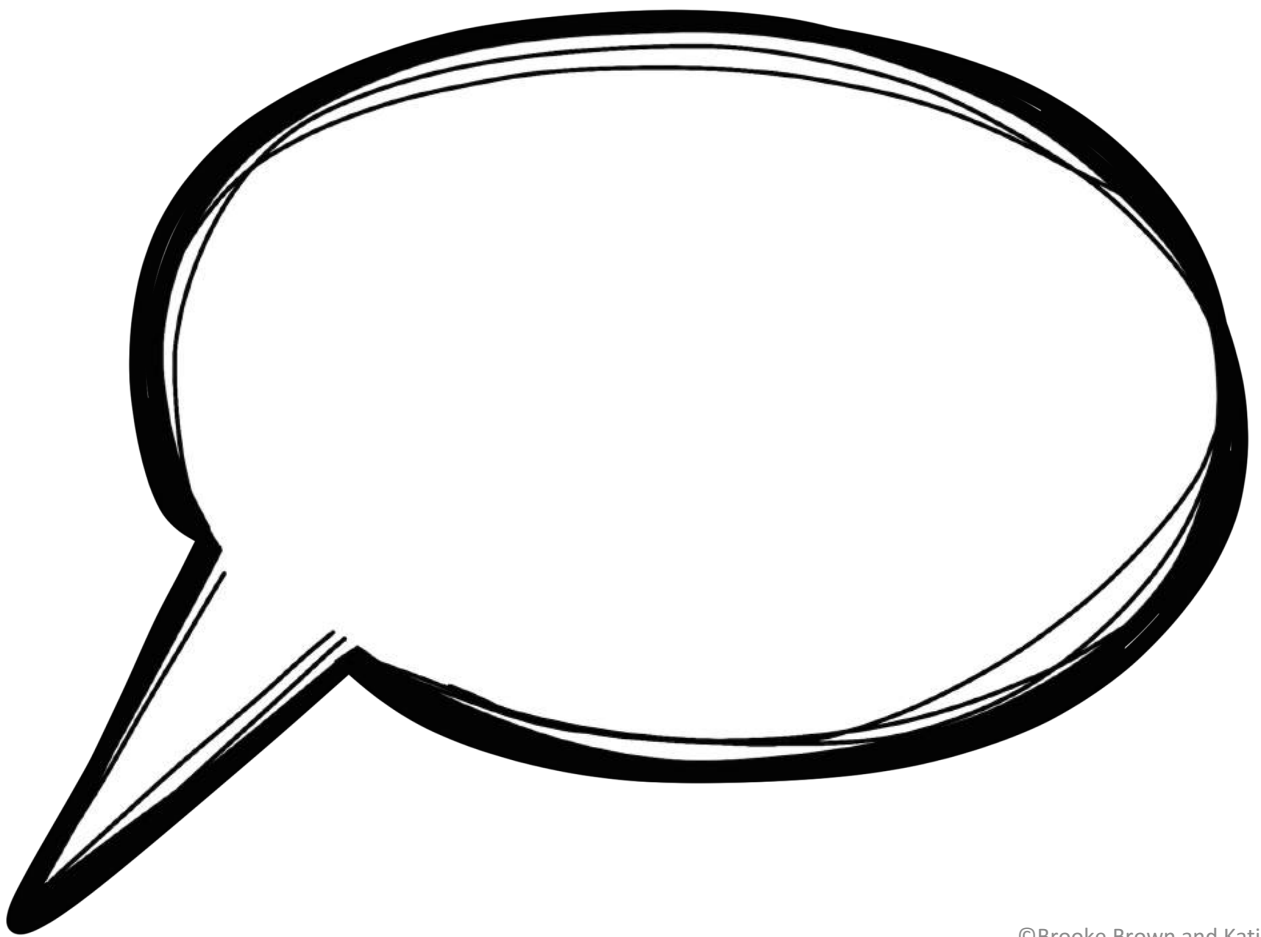
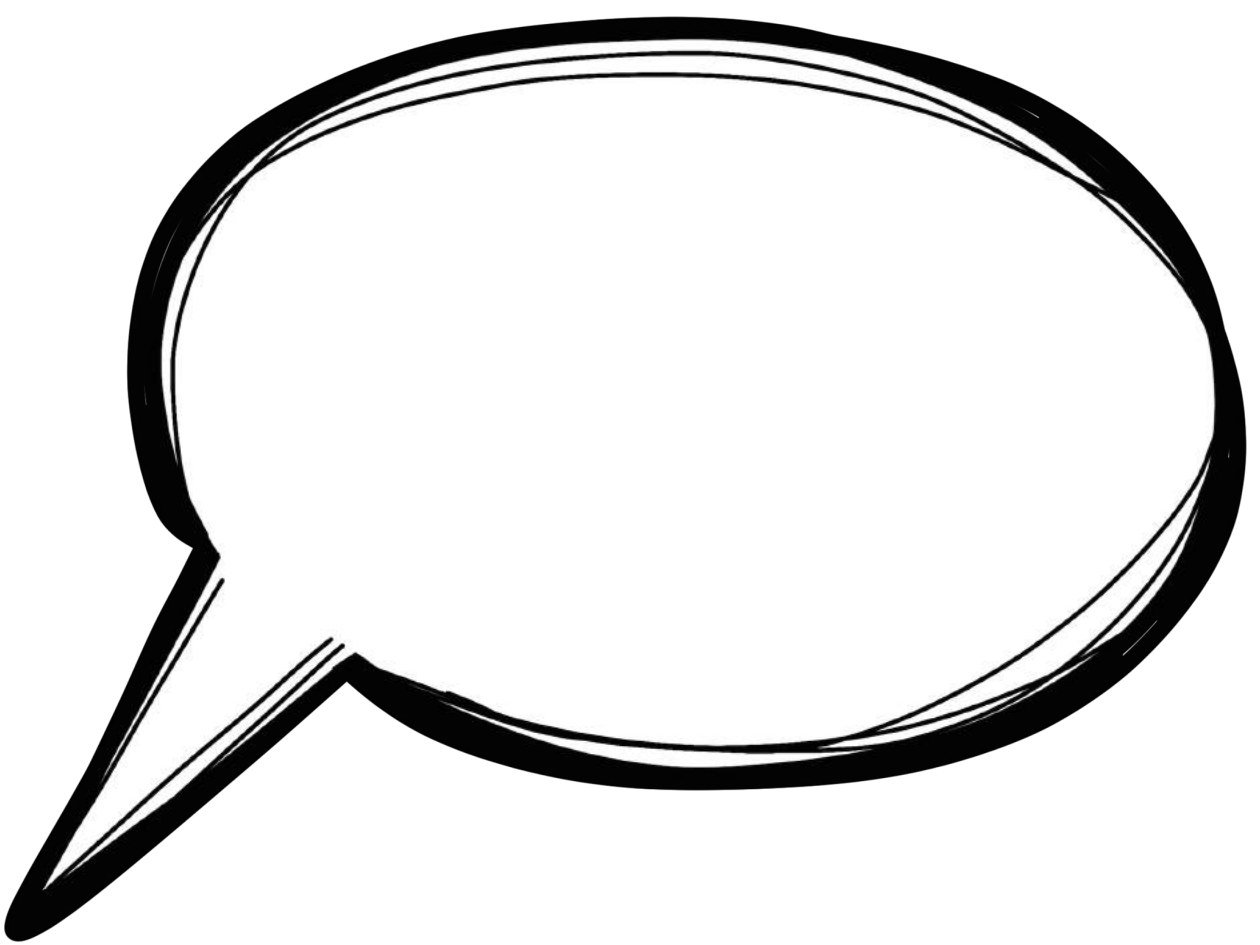
dialogue

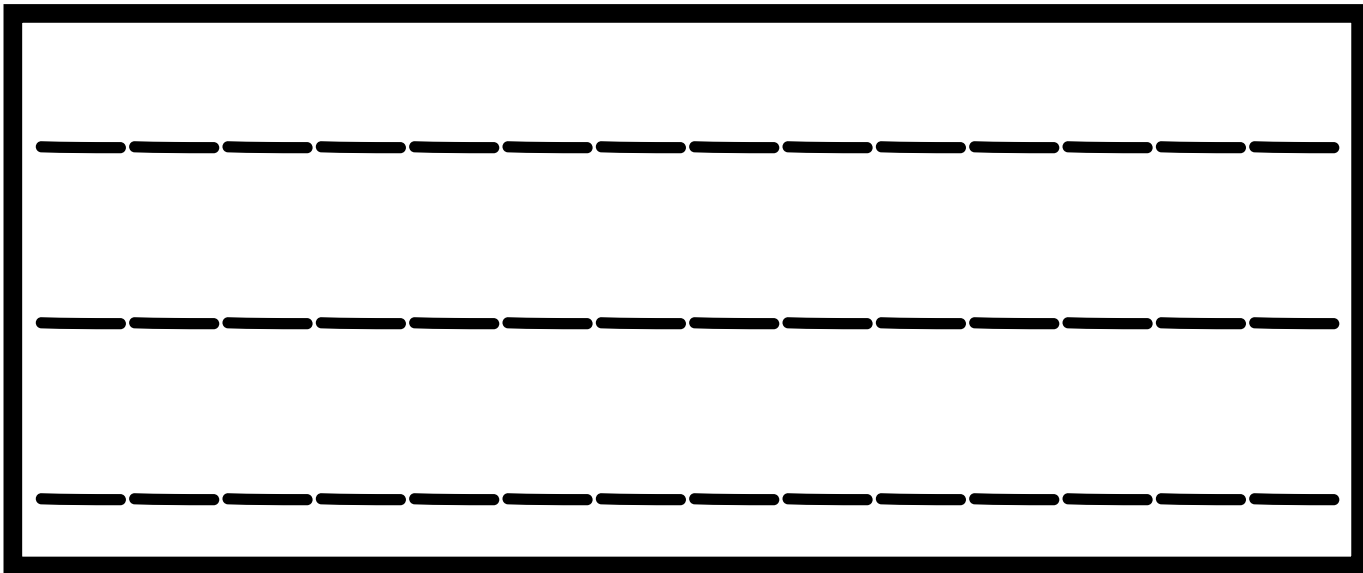
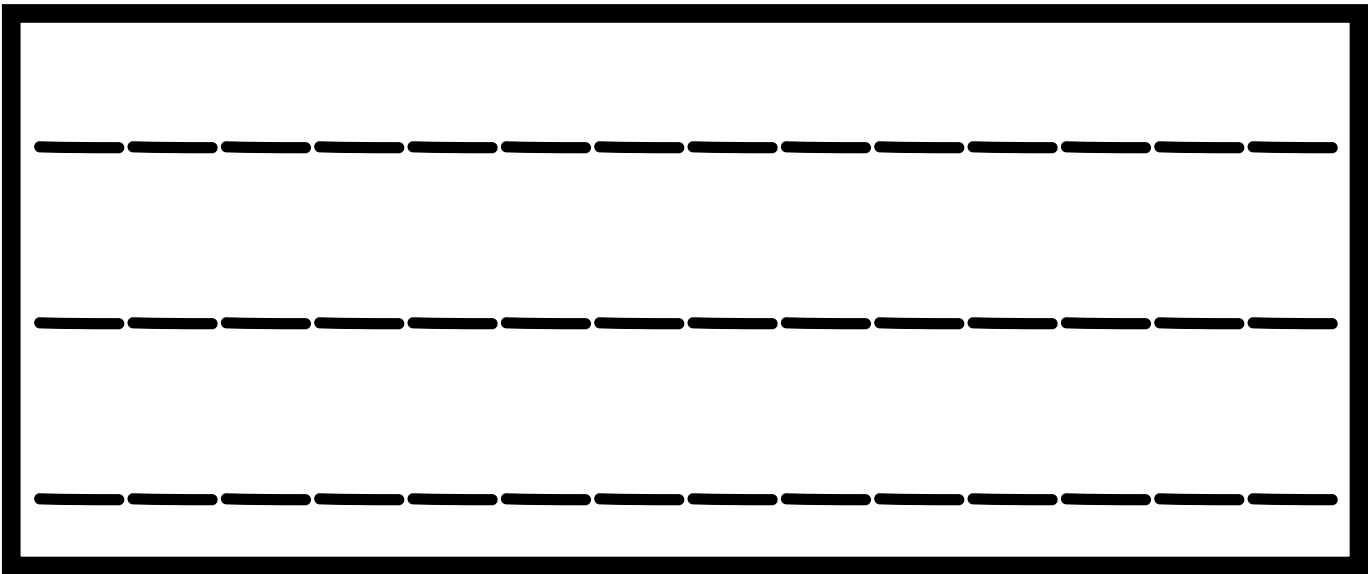
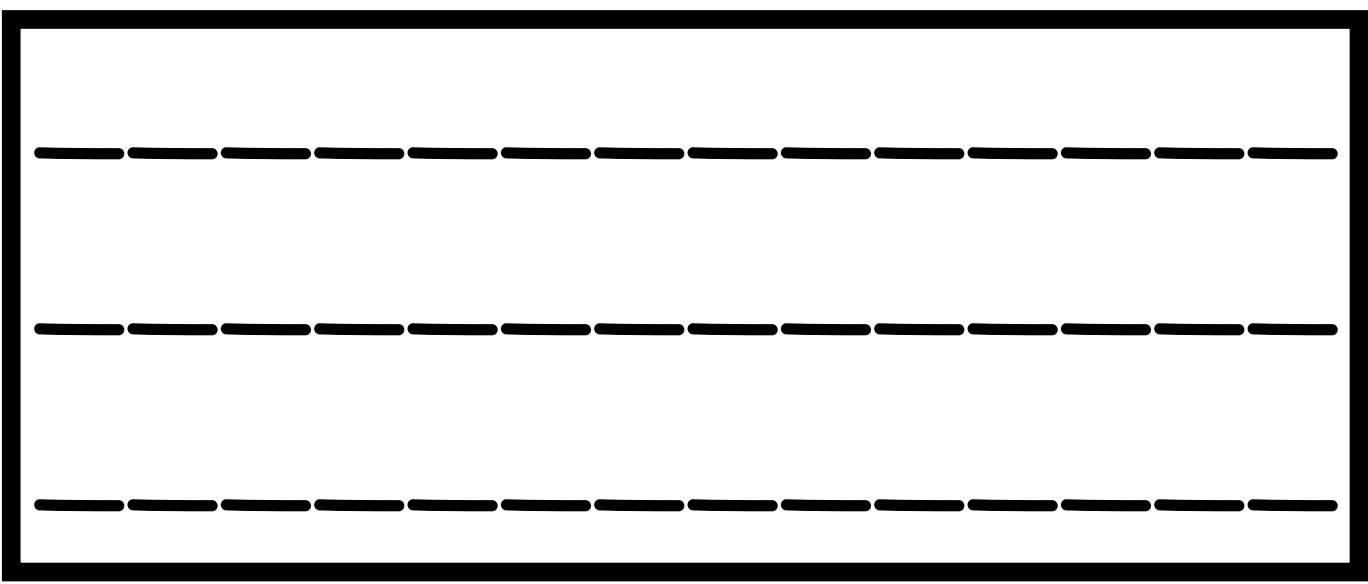
when a character is talking



use quotation
marks to show
when the
character is
talking







realize



to understand
clearly

admit



to say something
is true

protect



to keep safe
from harm

perspective



how you look at
something

TEACHER TALK

*After going over the definitions, teachers can use the cards in all kinds of ways. Have students pair up. Put one of the cards up on the projector and ask the students to come up with a sentence. Another option would be to have the students act out the words together.



TEACHERS: PRINT ON
COLORED PAPER AND
HAVE STUDENTS HOLD
UP. USE THIS AS A
QUICK WAY TO
GAUGE
UNDERSTANDING!
SCAN THE ROOM TO
LOOK FOR THE
COLOR YOU ARE
LOOKING FOR!



realize



to understand
clearly

realize



to understand
clearly

realize



to understand
clearly

realize



to understand
clearly

admit



to say something
is true

admit



to say something
is true

admit



to say something
is true

admit



to say something
is true

protect



to keep safe
from harm

protect



to keep safe
from harm

protect



to keep safe
from harm

protect



to keep safe
from harm

perspective



how you look at
something

perspective



how you look at
something

perspective



how you look at
something

perspective



how you look at
something

Vocab 3-in-a-Row



to keep safe from harm	realize	to say something is true
protect	free space	admit
how you look at something	perspective	to understand clearly

to keep safe from harm	admit	to say something is true
realize	free space	perspective
how you look at something	protect	to understand clearly

DIRECTIONS FOR SET-UP: Each player needs a game board. Students fill in the empty spaces with their four vocabulary words. The students also need "Markers" of some kind to cover the words or definitions.

DIRECTIONS TO PLAY: Teacher will call out either a word or a definition. The students should cover up the matching square. For example- Teacher "perspective" Student covers up "how to look at something." When a student has three in a row, they yell out "Idea."

to keep safe from harm		to say something is true
	free space	
how you look at something		to understand clearly

to understand clearly		how you look at something
	free space	
to say something is true		to keep safe from harm

MATH CONNECTION



TYPES OF CLOCKS

THERE ARE TWO MAIN TYPES OF CLOCKS:
ANALOG AND DIGITAL.



analog



digital



What
observations can you
make about each clock?
What kinds of clocks do
you see around your
classroom? Which is
easier for you to read?

Genius Gizmo

What Do You Do With an Idea?



NGSS Standard Alignment: 2-PS1-3: Make observations to construct and evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object, K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool, K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Challenge Description: Students will put together a variety of paper objects or "junk" to create an original invention that solves a simple problem. They will also design a poster to advertise their invention.

Suggested Materials: copies of "junk" pieces, copies of blueprint paper, copies of poster advertisement (1 set of papers for partners or groups of students)

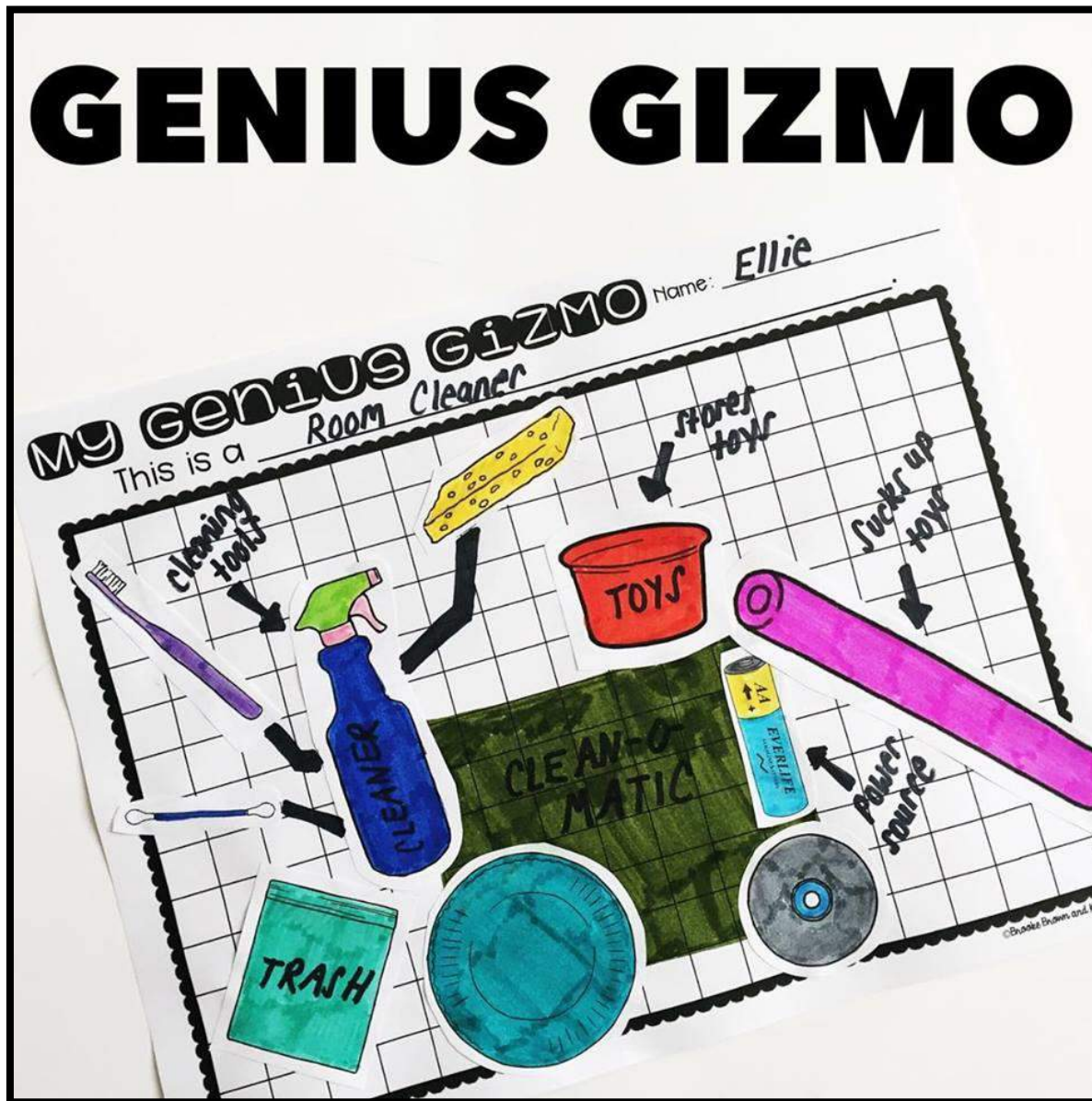
LESSON PLAN

1. Ask students to brainstorm different inventions that have changed our world to make it better. If possible, project images of famous inventors from the past and present such as Thomas Edison, Alexander Graham Bell, Benjamin Franklin, The Wright Brothers, Henry Ford, and Steve Jobs, and discuss their famous inventions. Record student ideas on the provided teacher chart and have them add ideas to their individual booklets. Refer to the provided vocabulary cards as needed throughout the lesson and display them in your classroom.
2. Introduce permitted materials and share the challenge instructions. Allow students time to brainstorm invention ideas, assemble their paper blueprints and add labels, make a poster to advertise their invention, and record in their STEM journals.
3. Hold a whole class closing discussion and reflection, allowing students to present their invention ideas to the class. Discuss the different problems that their inventions might solve and how they solve them.

Genius Gizmo

What Do You Do With an Idea?

Possible Product



Genius Gizmo

What Do You Do With an Idea?

Important Inventions

**problems That Need
to be solved**

Famous Inventors

our Inventions



Genius Gizmo

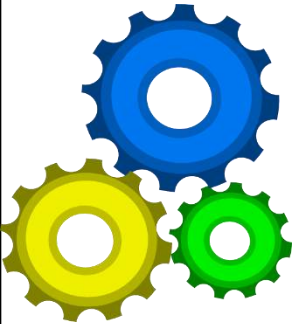
Vocabulary Cards

©Brooke Brown & Katie King



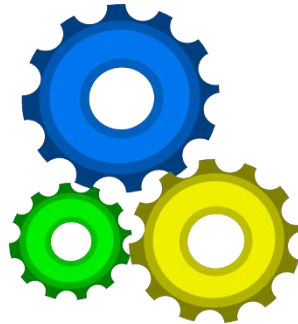
blueprint

a plan for a design



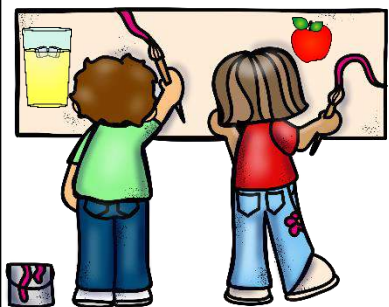
gizmo

a useful gadget, tool, or machine



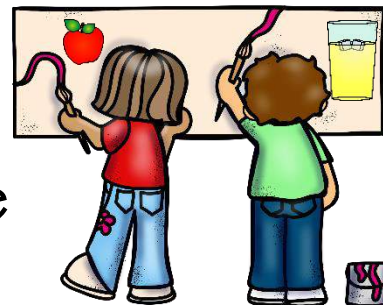
prototype

the first model for an invention



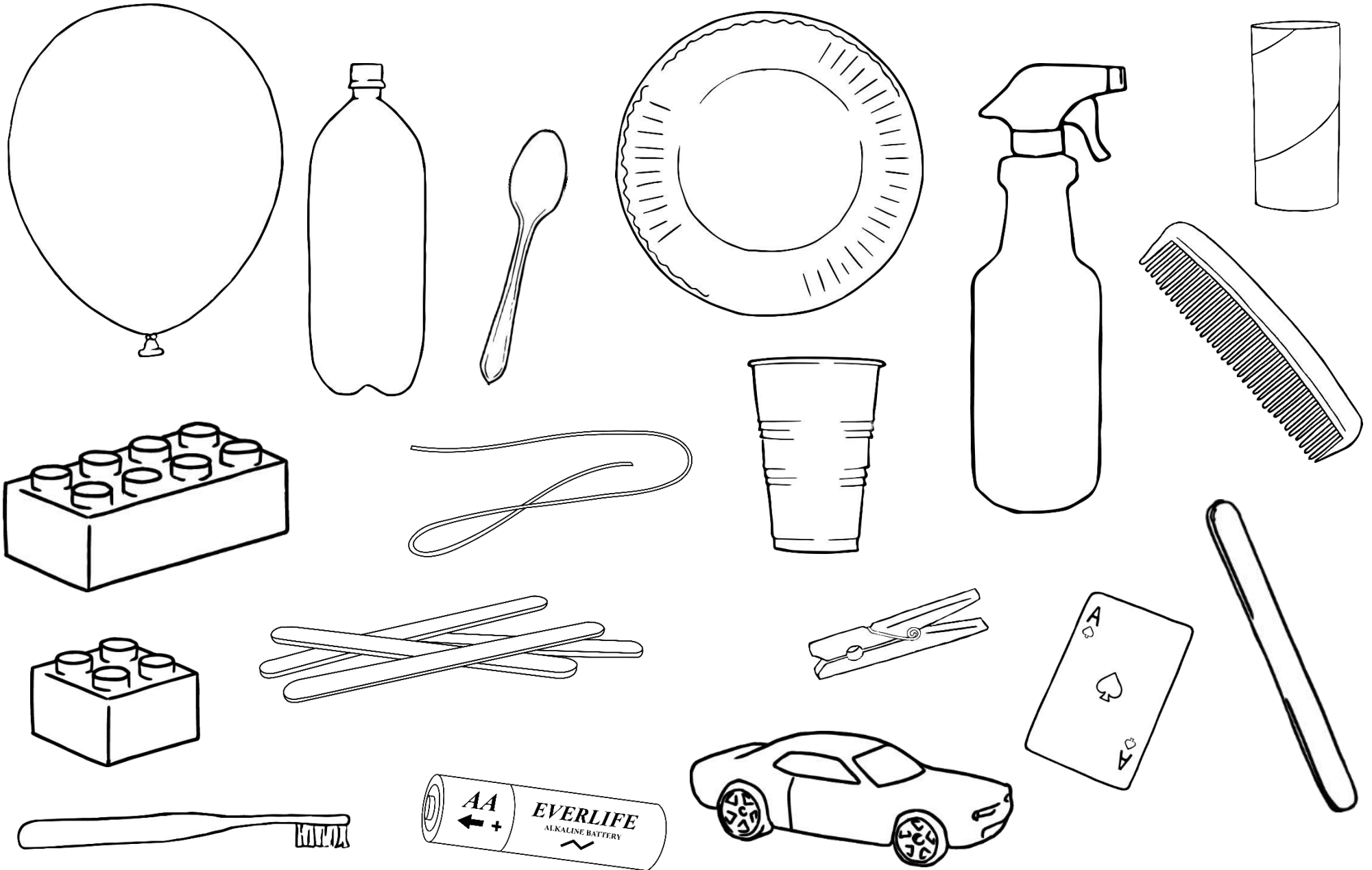
advertisement

a sign or announcement that encourages people
to use or buy a product



INVENTORS' JUNK

Cut out the "junk" pieces below that you'd like to use for your invention!
Make sure to draw and add your own parts too.



Inventors' Junk

Cut out the "junk" pieces below that you'd like to use for your invention!
Make sure to draw and add your own parts too.



MY GENIUS GIZMO

Name: _____

This is a _____.

A blank 15x15 grid with a decorative black border. The grid consists of 15 columns and 15 rows of squares. The border is a thick black line with a scalloped or wavy pattern. The grid is currently empty, with no numbers or other markings inside the squares.

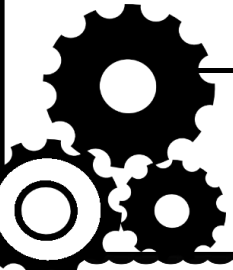
My Advertisement

Name: _____

Create a poster that will encourage people to buy your invention. Make sure to include a picture, name of the invention, reasons why someone should buy it, and how much it costs.



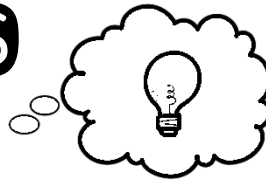
How Does My Gizmo Work?



What problem does My Gizmo solve?



Genius Gizmo



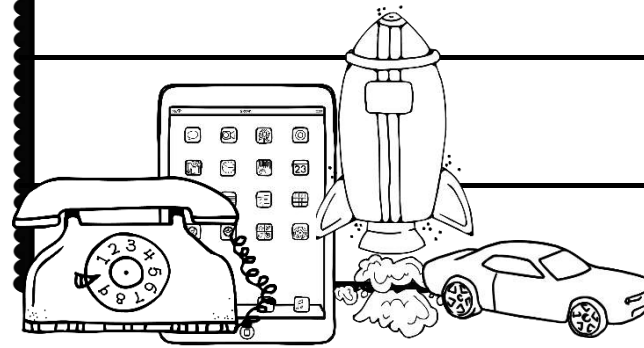
What Do You Do With an Idea?

Name: _____

STEM CHALLENGE

Can you design an invention that solves a problem?

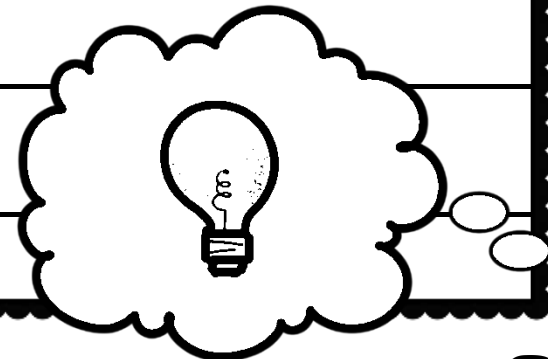
Important Inventions



Problems That We Have



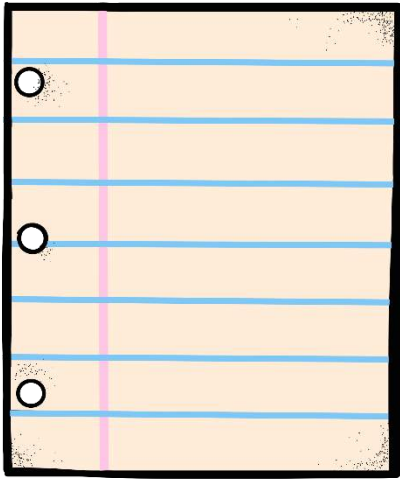
Bright Ideas



What Do You Do With an Idea?

Maker Task Cards

Use the following task cards in a MakerSpace or with STEM Pins for students to make more creations.

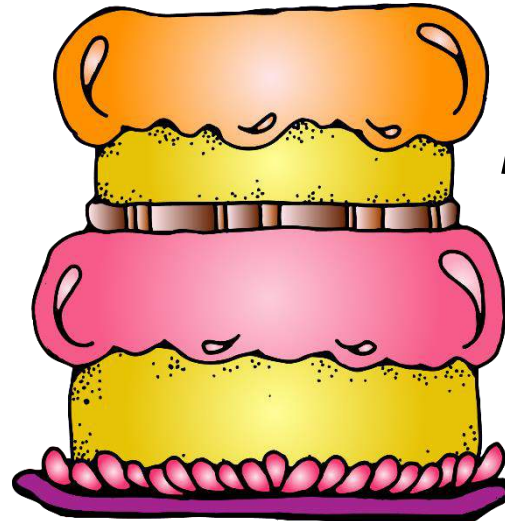
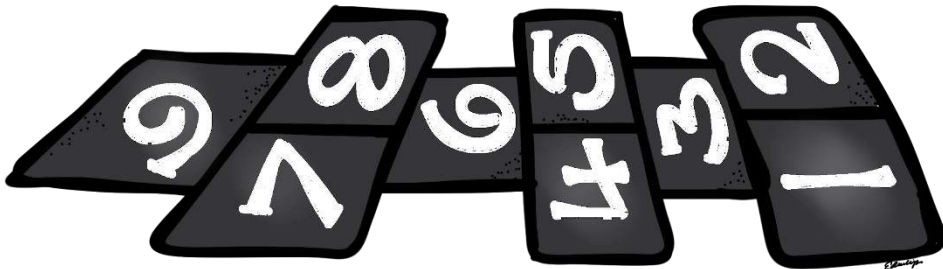


Make something useful out of paper.



Make a new app.

Make up a new game.



Make up a new recipe.

Dig Deeper Into the Text!

Teacher Questions for WE'RE ALL WONDERS



Have you heard of the Wonder series? Do you have older brothers and sisters who have read *Wonder*? What have they told you about it?

Auggie does ordinary things in the book. What ordinary things do you do everyday?

Auggie has a face deformity. What does this mean?

Why do you think people worry so much about what another person looks like? Does this really tell you much about the person? What really matters?

Why does Daisy get her feelings hurt when people say mean things about Auggie?

What does the author mean by "change the way they see"?

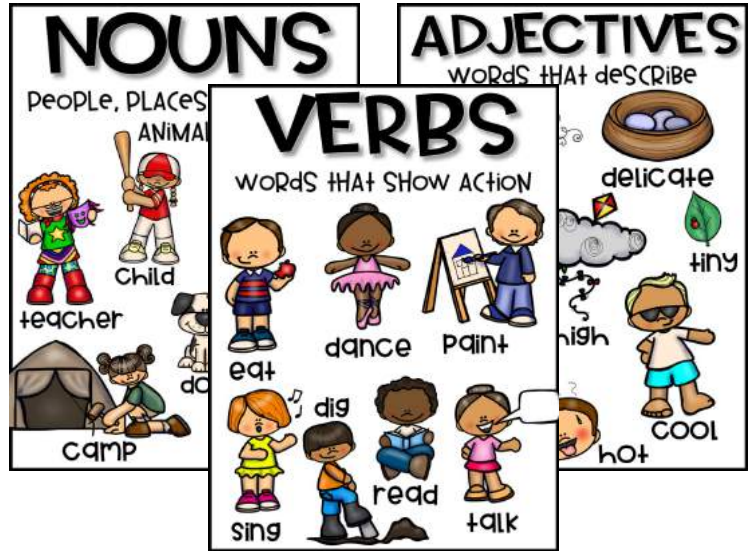
TEACHERS: PRINT
ON COLORED PAPER
AND LAMINATE. USE
THIS BOOKMARK
YEAR AFTER YEAR
TO HELP EXTEND
STUDENTS' THINKING!

Intended
Use



COMPREHENSION

1. Use the digital anchor charts to introduce/review Parts of Speech. Then make a class anchor chart finding nouns, verbs, and adjectives from the book *We're All Wonders*.



2. The cards can be used as a write the room activity or a whole group lesson. Students should record their answers on the recording sheet.



COMPREHENSION

3. Have students show what they have learned about Parts of Speech with the exit ticket!

Name: _____

Parts of Speech

Identify if each word is a noun, verb, or adjective.
Now write a sentence with all three words

	☐ noun ☐ verb ☐ adjective		☐ noun ☐ verb ☐ adjective		☐ noun ☐ verb ☐ adjective
juicy		chair		throw	

4. Optional Extension Activity for High Flyers! Go over the poster and have students draw themselves with reflecting about how they could put the lesson from the book into action.

Learning from a book

We can learn important lessons from books. In *We're All Wonders* we learn that it is important to remember that different does not mean BAD. We also learn that we should not judge people by what they look like.



NOUNS

PeOPLe, PLACeS, tHiNGS, OR

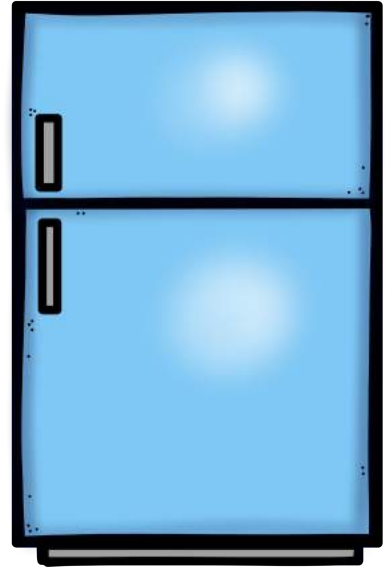
ANiMALS



teacher



Child



refrigerator



dog



camp



lion

VERBS

WORDS THAT SHOW ACTION



eat



dance



paint



sing



dig



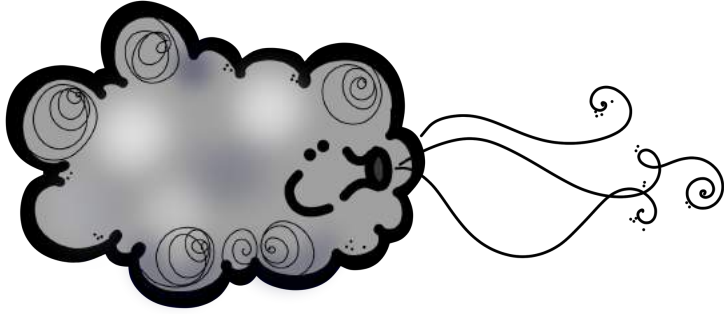
read



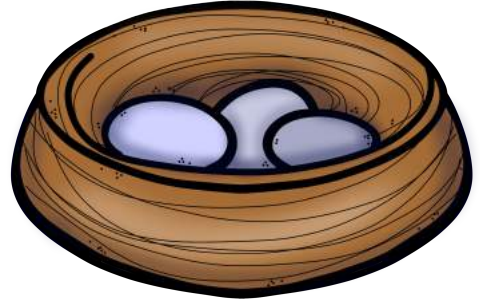
talk

ADJECTIVES

WORDS THAT DESCRIBE



breezy



delicate



bitter



high



tiny



green



cool



hot

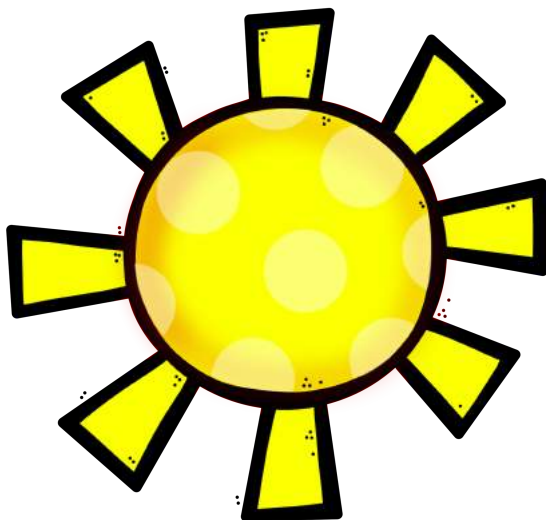
Nouns

verbs

ADJECTIVES



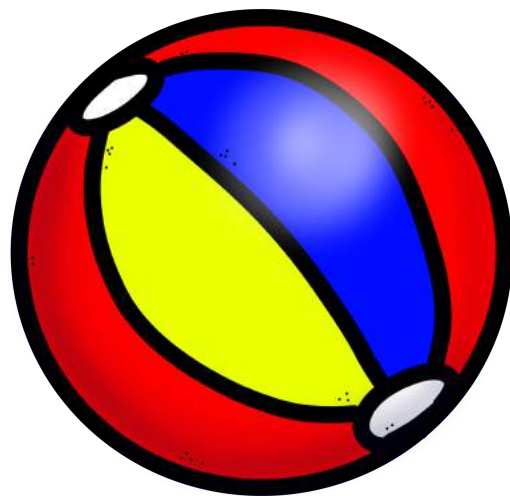
bathing suit



sun



ice cream



ball



grill



travel



drive



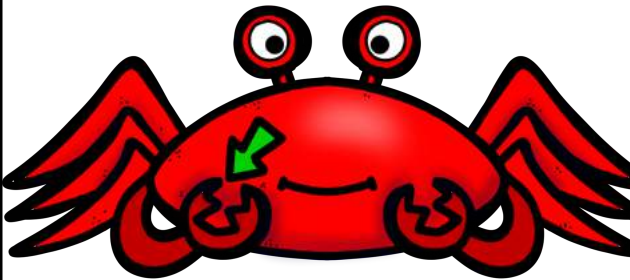
build



sticky



cold



sharp



fluffy

PARTS OF SPEECH: Vacation

Name: _____

Directions: Students should record the words in the correct column. When they are finished they should write a sentence with a word from each column.

nouns	verbs	adjectives

Name: _____

Parts of Speech



Identify if each word is a noun, verb, or adjective.

Now write a sentence with all three words



juicy

☐

noun

☐

verb

☐

adjective



chair

☐

noun

☐

verb

☐

adjective



throw

☐

noun

☐

verb

☐

adjective

Name: _____

Parts of Speech



Identify if each word is a noun, verb, or adjective.

Now write a sentence with all three words



juicy

☐

noun

☐

verb

☐

adjective



chair

☐

noun

☐

verb

☐

adjective



throw

☐

noun

☐

verb

☐

adjective

Learning from a book

We can learn important **lessons** from books. In We're All Wonders we learn that it is important to know that different does not mean BAD.

We also learn that we should not judge people by what they look like.



now time to reflect! What can you do to make people who are different than you feel accepted and loved?





ordinary



normal; no
special features

unique



one of a kind

galaxy



millions of
stars

empathy



the ability to share
feelings of another

TEACHER TALK

*After going over the definitions, teachers can use the cards in all kinds of ways. Have students pair up. Put one of the cards up on the projector and ask the students to come up with a sentence. Another option would be to have the students act out the words together.



TEACHERS: PRINT ON
COLORED PAPER AND
HAVE STUDENTS HOLD
UP. USE THIS AS A
QUICK WAY TO
GAUGE
UNDERSTANDING!
SCAN THE ROOM TO
LOOK FOR THE
COLOR YOU ARE
LOOKING FOR!



ordinary



normal; no
special features

ordinary



normal; no
special features

ordinary



normal; no
special features

ordinary



normal; no
special features

unique



one of a kind

unique



one of a kind

unique



one of a kind

unique



one of a kind

galaxy



millions of
stars

galaxy



millions of
stars

galaxy



millions of
stars

galaxy



millions of
stars

empathy



the ability to share
feelings of another

empathy



the ability to share
feelings of another

empathy



the ability to share
feelings of another

empathy



the ability to share
feelings of another

Vocab 3-in-a-Row



DIRECTIONS FOR SET-UP: Each player needs a game board. Students fill in the empty spaces with their four vocabulary words. The students also need "Markers" of some kind to cover the words or definitions.

DIRECTIONS TO PLAY: Teacher will call out either a word or a definition. The students should cover up the matching square. For example- Teacher "unique" Student covers up "one of a kind." When a student has three in a row, they yell out "Wonders."

the ability to share feelings of another		one of a kind
	free space	
normal; no special features		millions of stars

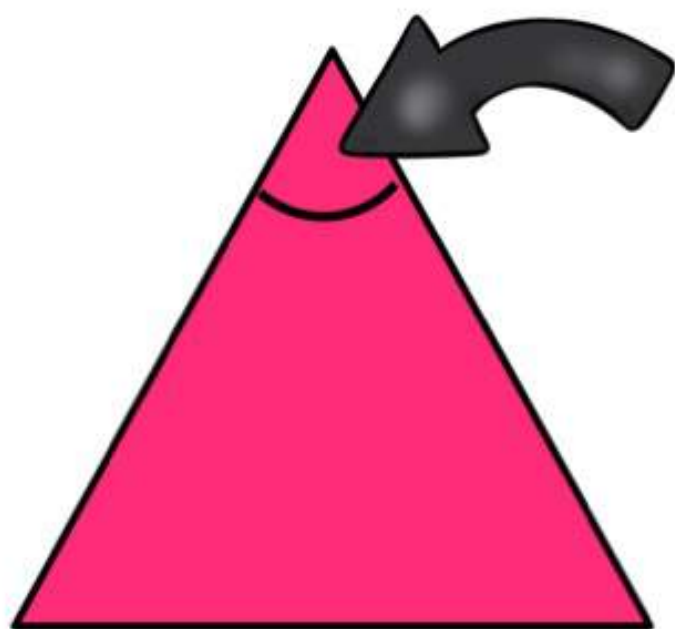
millions of stars		the ability to share feelings of another
	free space	
one of a kind		normal; no special features

MATH CONNECTION

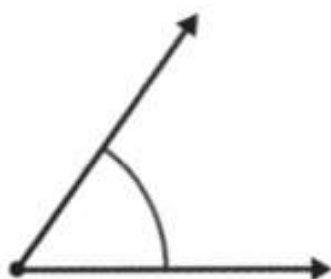
ANGLES



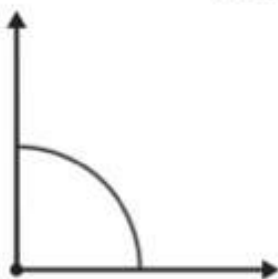
THE SPACE BETWEEN WHERE TWO LINES MEET.



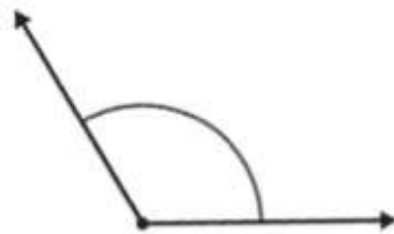
Use your arms to demonstrate the three types of angles below: acute, right, and obtuse. How many angles does a triangle have? How many angles does a square have? What about an octagon? Do you see a connection here?



acute



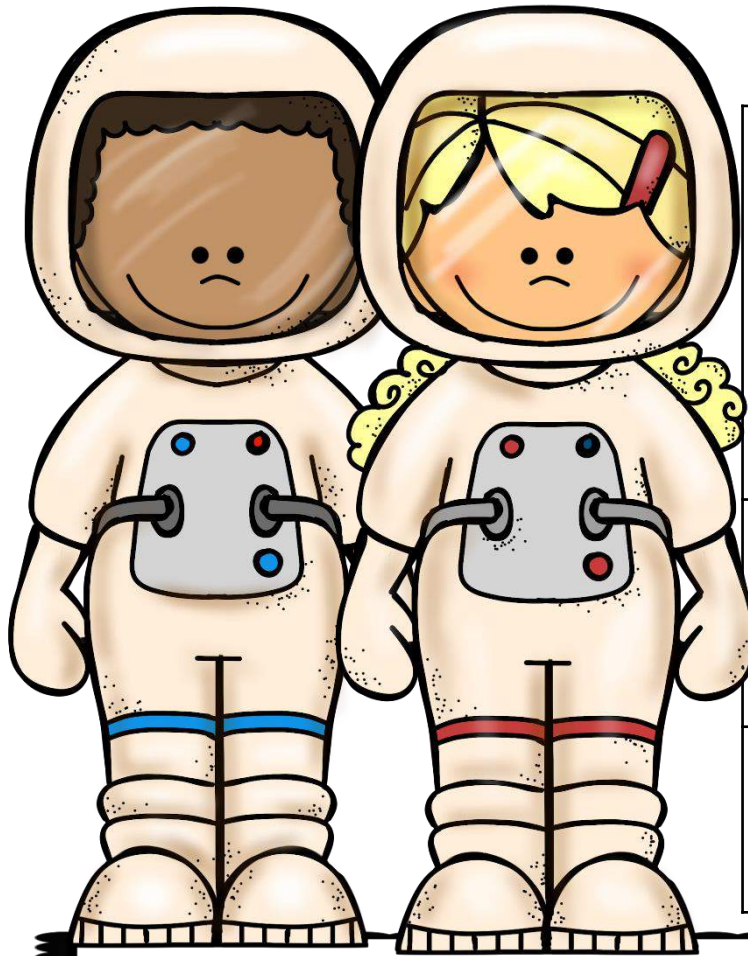
right



obtuse

Lever Launcher

We're All Wonders



NG-SS/CCSS Standards: K-PS2-1: Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object, K-PS2-2: Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or pull K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool, K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Challenge Description: Students will use a ruler as a lever and different cylinder shaped classroom tools for a fulcrum. Students will launch their astronaut by placing it on one end of the lever, then hitting the other end to make it pop up into the air. They will experiment with different sized fulcrums and compare the results. Students will measure how far their astronaut travels with each fulcrum.

Suggested Materials: Dixie cups (1 per group), copies of astronauts (1 per group), rulers or wooden paint sticks (1 per group), different sized items for fulcrums such as pencils, markers, small glue sticks, and jumbo glue sticks (1 of each item per group), yardsticks or linking cubes to measure launch distances

LESSON PLAN

1. Project or display real Google images of levers. Discuss the purposes of levers and how they make work easier. Draw specific attention to the three parts of a lever (**effort, load, and fulcrum**) and have students label the parts in their student booklets. Have students brainstorm real life examples of levers (i.e. see saws, scissors, catapults, wheelbarrows). Refer to the provided vocabulary cards as needed throughout the lesson and display them in your classroom.
2. Introduce permitted materials and share the challenge instructions. Allow students at least 45 minutes with partners or small groups to assemble their levers, test their astronauts by launching them, and compare results from different sized fulcrums. Allow them time to record test results in their journals.
3. Hold a whole class closing discussion and reflection, allowing students to share what they learned about levers. Record their ideas on the provided teacher chart and have them finish their individual booklets.

LEVER Launcher

We're All Wonders

Possible Product



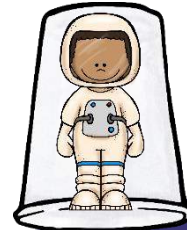
LEVER Launcher

We're All Wonders

How Levers work

parts of a Lever

load



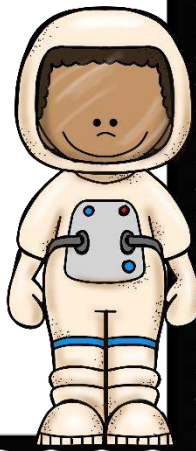
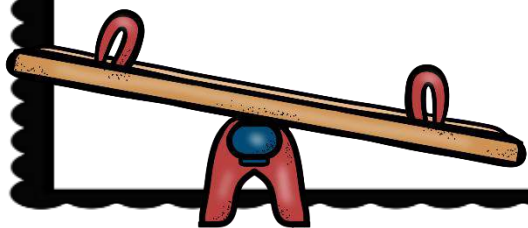
effort



fulcrum

Where Levers are Found

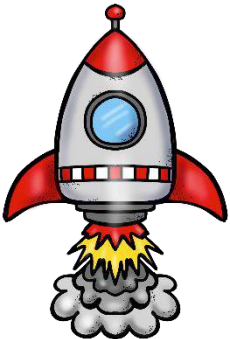
What We Learned



Lever Launcher

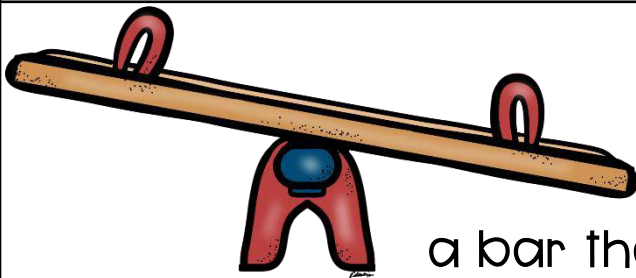
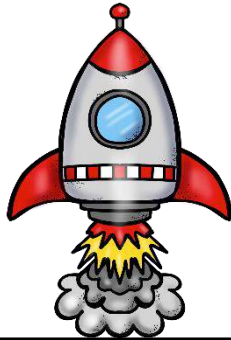
Vocabulary Cards

©Brooke Brown & Katie King



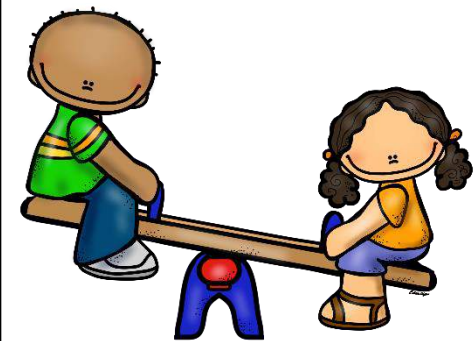
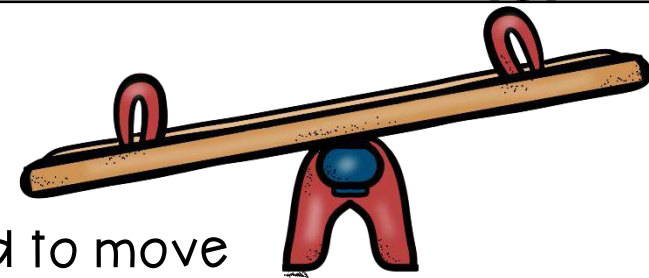
launch

to start or set in motion



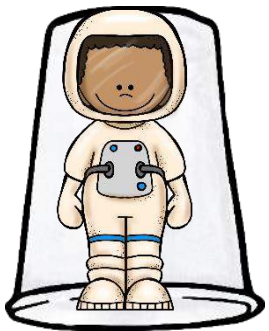
lever

a bar that rests on a fulcrum that is used to move a load with one end when pressure is applied to the other end



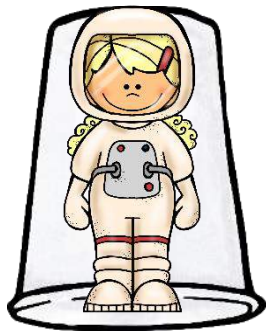
effort

energy that is used to move or lift an object or load



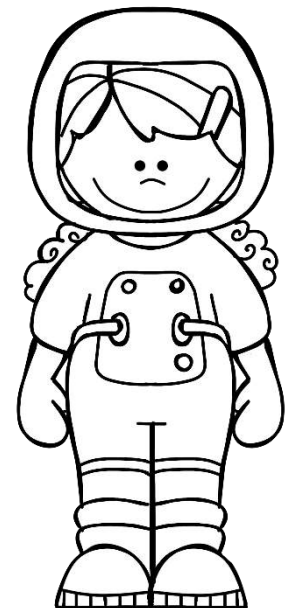
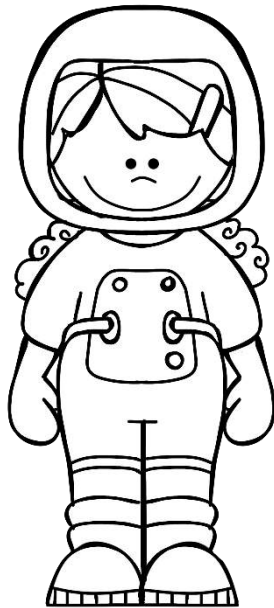
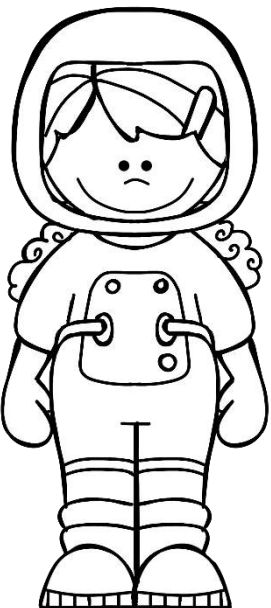
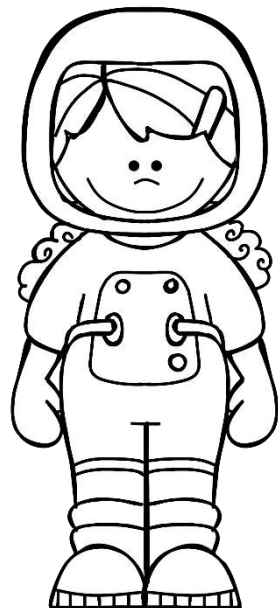
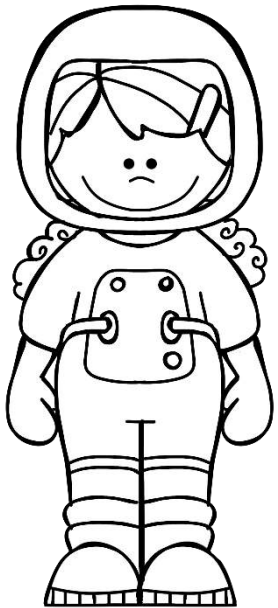
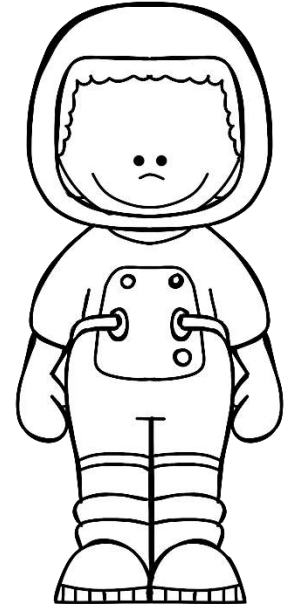
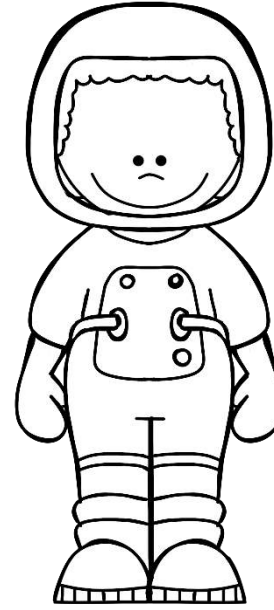
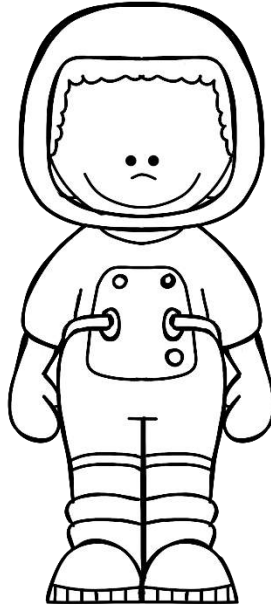
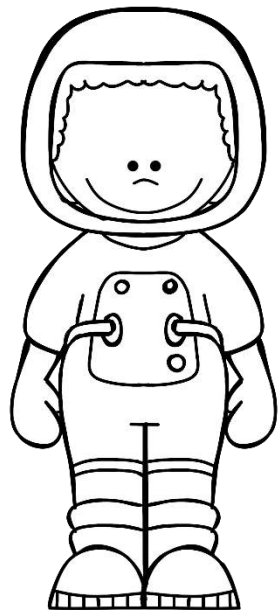
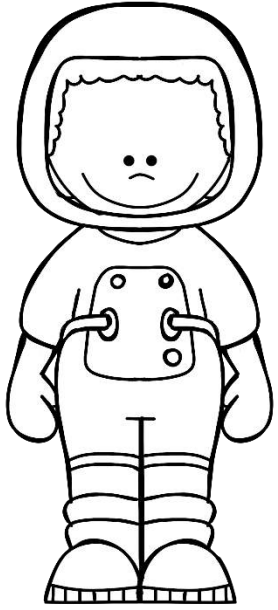
load

an object that needs to be moved or lifted by effort or force



ASTRONAUTS

Tape to the front of Dixie cups.

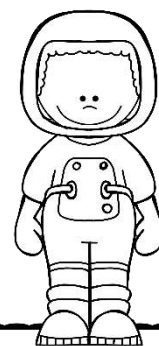


Launch Tests

Fulcrum Tool	How far did your astronaut go?

Which fulcrum made your astronaut travel the farthest?

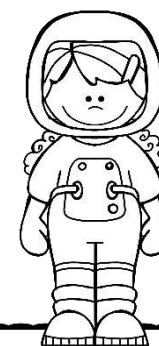
Why do you think it traveled the farthest?



Lever Launcher

We're All Wonders

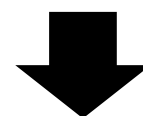
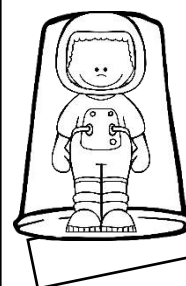
Name: _____



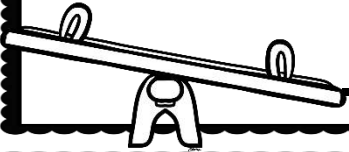
STEM CHALLENGE

Can you create a lever that will launch your astronaut the farthest distance?

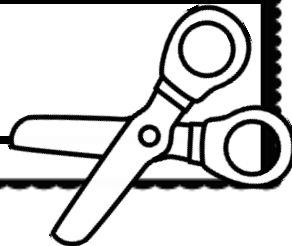
parts of a Lever



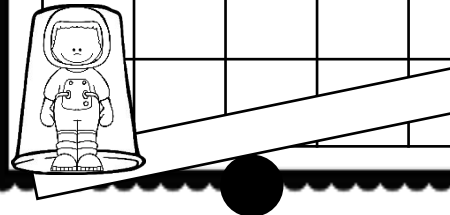
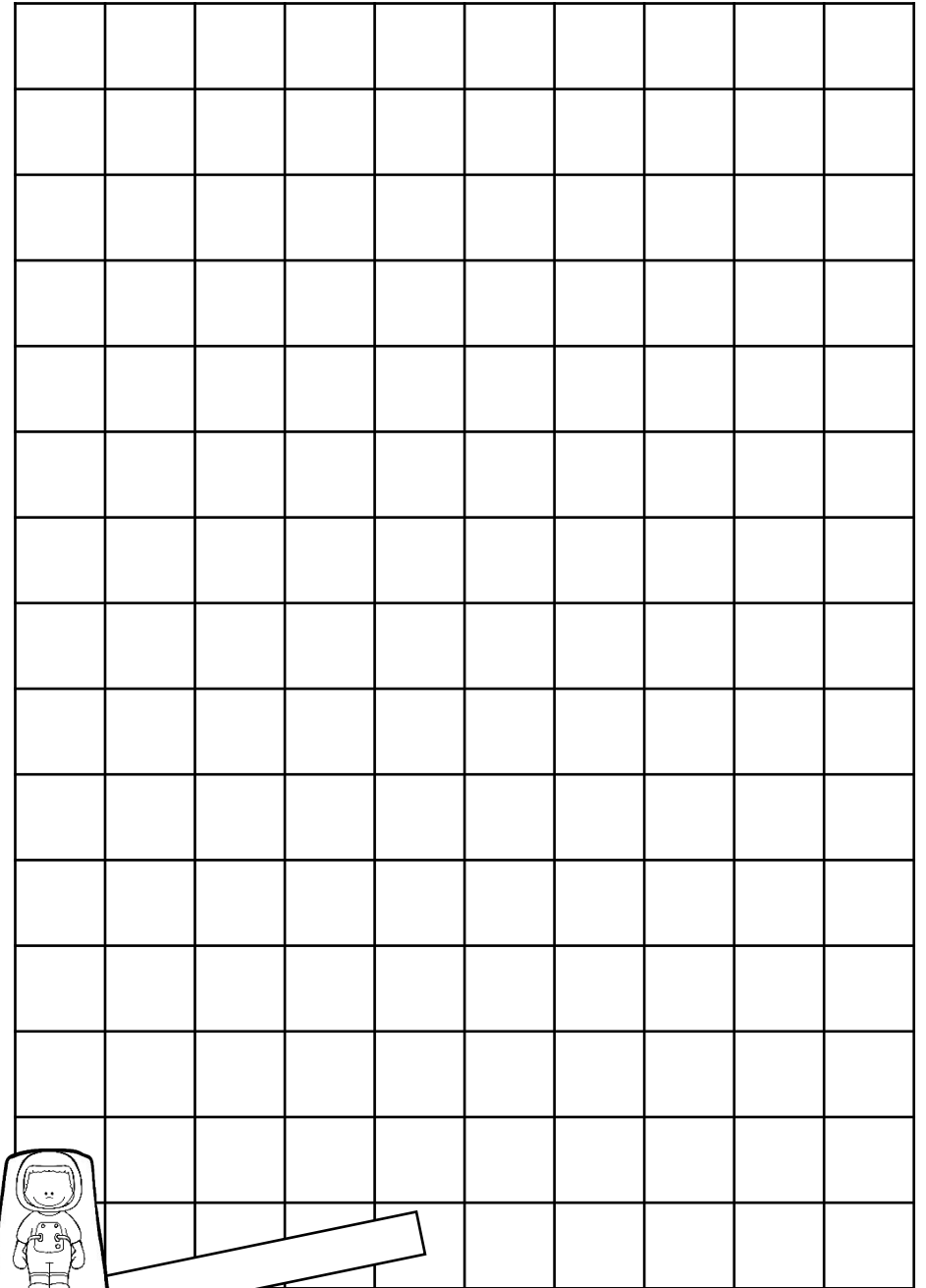
Where are Levers Found?



How are Levers Useful?



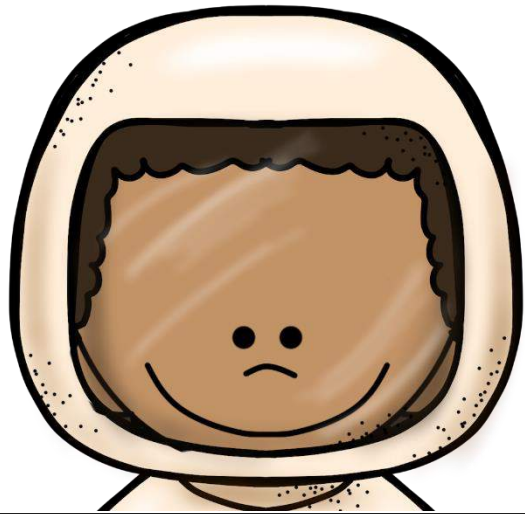
My Lever Launcher



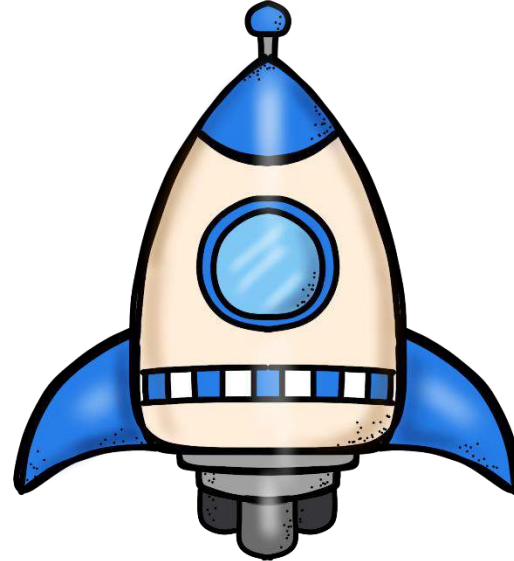
We're All Wonders

Maker Task Cards

Use the following task cards in a MakerSpace or with STEM Pins for students to make more creations.



**Make a
space
helmet.**



**Make a
rocket
ship.**

**Make a
telescope.**



**Make a poster about
how to be a good friend.**



Dig Deeper Into the Text!

Teacher Questions for **IGGY PECK, ARCHITECT**



Have you read any other books by Andrea Beaty? What were they?

What are "Sphinx" and what country did they originate in?

Did Iggy's parents buy him expensive materials for his creations? What did he use to build?

What do you think about Mis Lila Greer's decision to not discuss architecture? Is it fair to her students?

How would you feel if you were stuck in an elevator for two days?

Does your class have safety precautions so you don't get lost on field trips?

Look at the page where the bridge collapses. What did the author do with the words? Why?

TEACHERS: PRINT
ON COLORED PAPER
AND LAMINATE. USE
THIS BOOKMARK
YEAR AFTER YEAR
TO HELP EXTEND
STUDENTS' THINKING!

Intended
Use



COMPREHENSION

1. After you have read the book, discuss how characters experience different feelings throughout the book. The author doesn't always TELL us exactly how the character is feeling. Sometimes the author will suggest feelings with other words.

words that suggest:
FEELINGS

The author uses different words to show you how characters feel. Imagine how boring the book would be if the author repeatedly stopped the storyline to tell you exactly how the character felt.



Can you identify how Iggy Peck and Miss Lila are feeling throughout the book?

And then sometimes the illustrator will help out by giving us clues in their illustrations.

2. Make a large class anchor chart with beginning, middle, and end. Have students use the emojis to tell how the character felt and what words helped them figure out how the character felt.

words that suggest **feelings**

BEGINNING	MIDDLE	END
 Iggy was happy. Iggy got a big smile in the car.	 Iggy was sad. He learned his track was broken. Some days are just like this.	 The class was proud! "Seventeen smiling faces!"
	 Lila was scared! "a great frog!" "Amazing height!"	

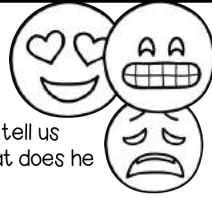
COMPREHENSION

3. Have students write about suggested feelings and why the author doesn't just come right out and say it!

Name: _____

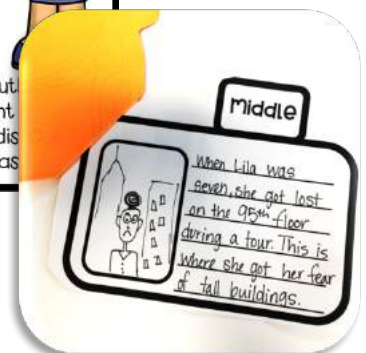
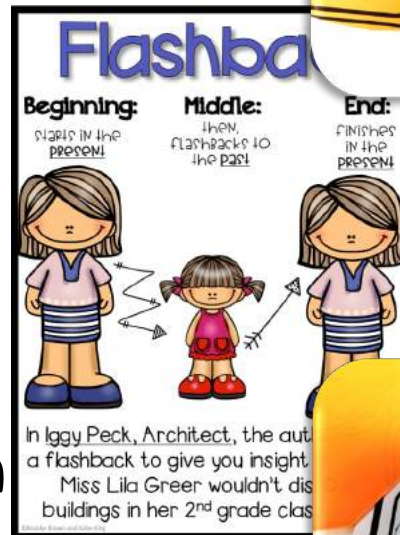
Feelings

Talk about why the author doesn't tell us exactly how the character feels. What does he do instead?



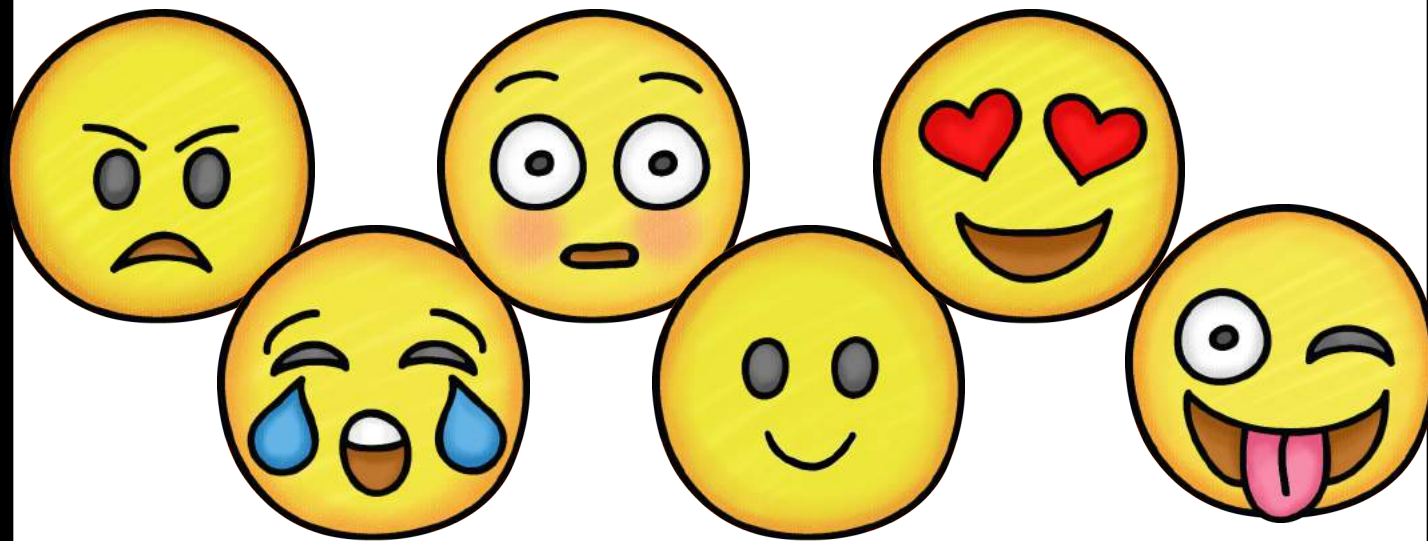
4. Optional Extension Activity for High Flyers! Go over the flashback poster.

Explain to the students the purpose of this particular flashback. Give students the camera cutouts and have them write and draw about Miss Greer in terms of the flashback.



words that suggest: **FEELINGS**

The author uses different words to show you how characters feel. Imagine how boring the book would be if the author repeatedly stopped the storyline to tell you exactly how the character felt.



can you identify
how iggy peck and
miss lila are feeling
throughout the
book?

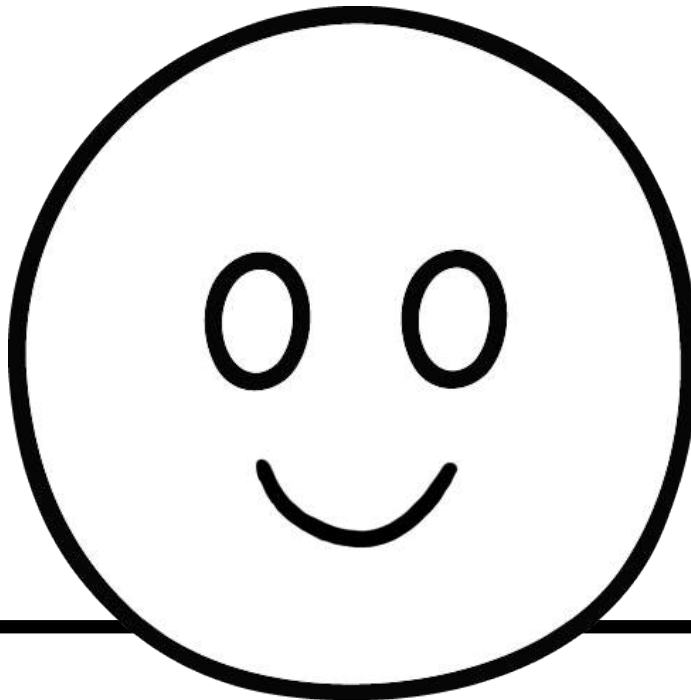
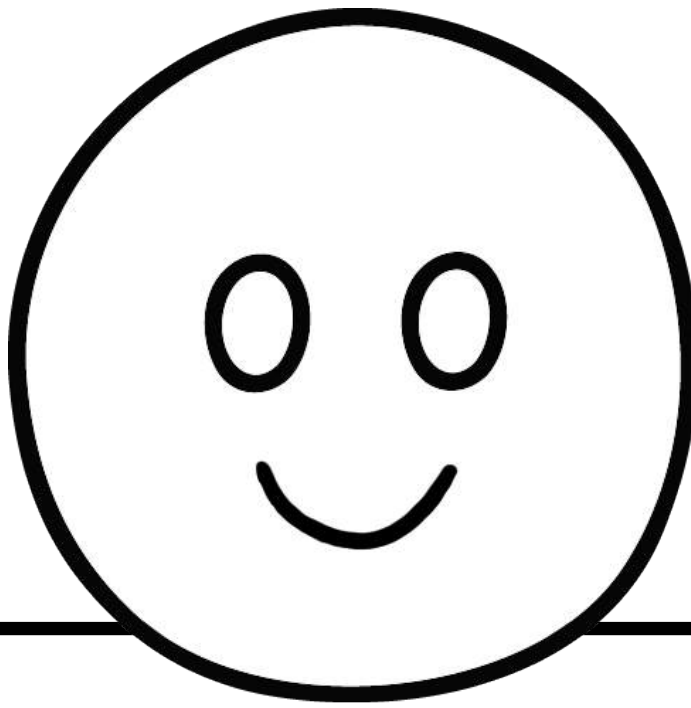
words that
suggest

feelings

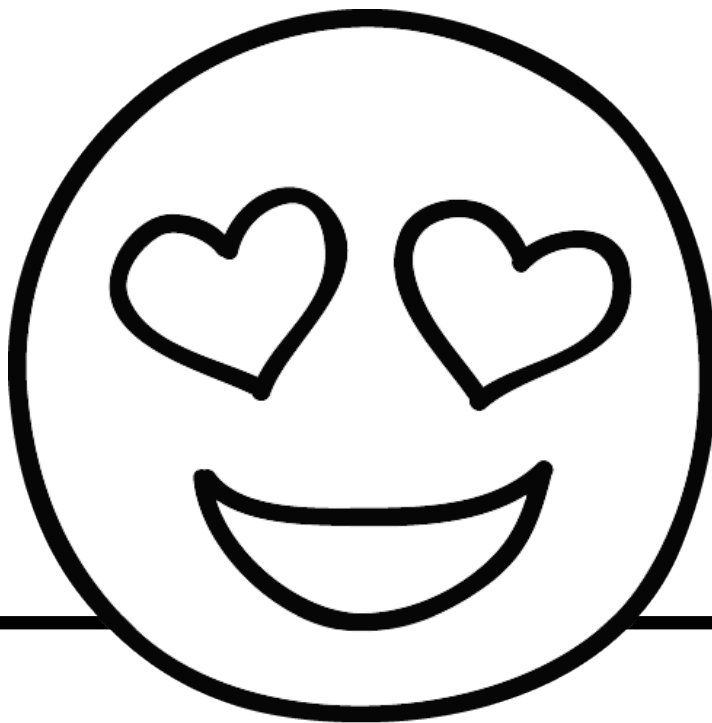
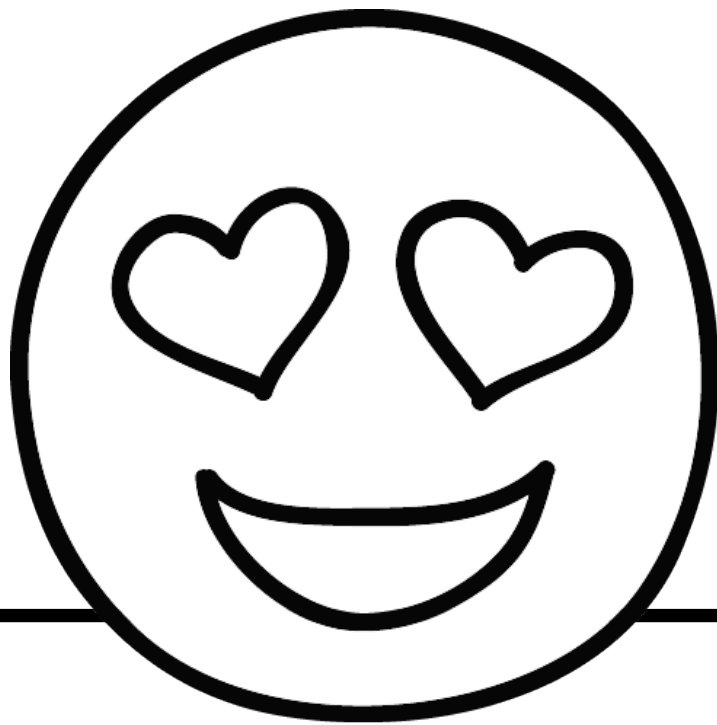
BEGINNING

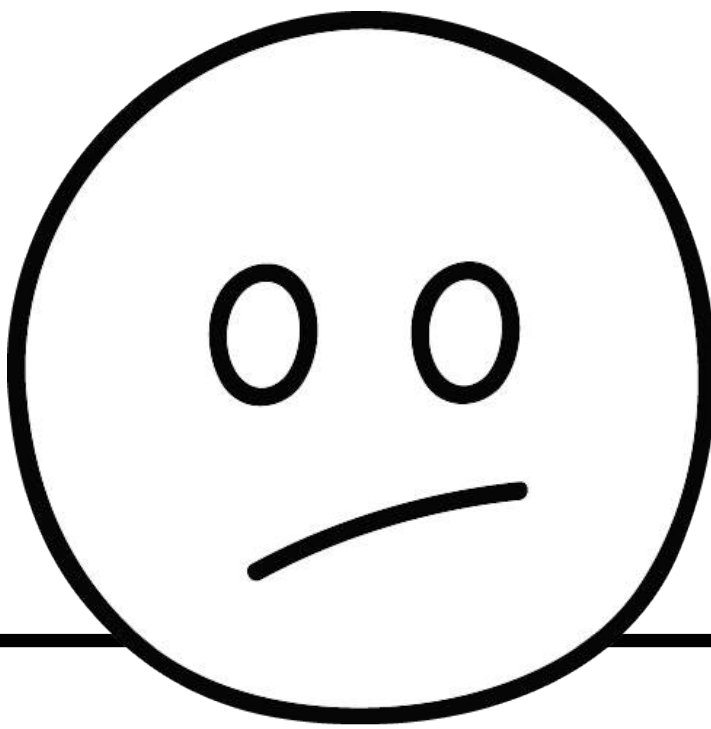
MIDDLE

END

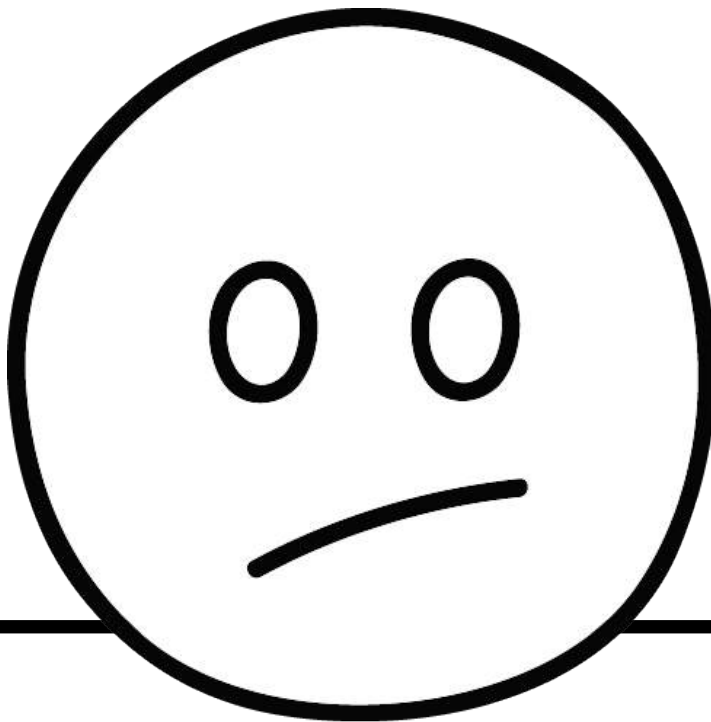








A horizontal rectangular box with rounded corners, intended for writing a response.

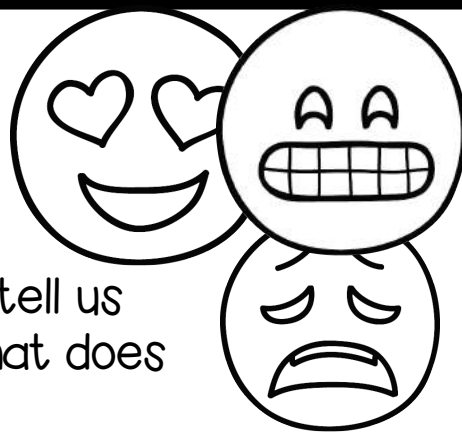


A second horizontal rectangular box with rounded corners, identical to the one above, for writing a response.

Name: _____

Feelings

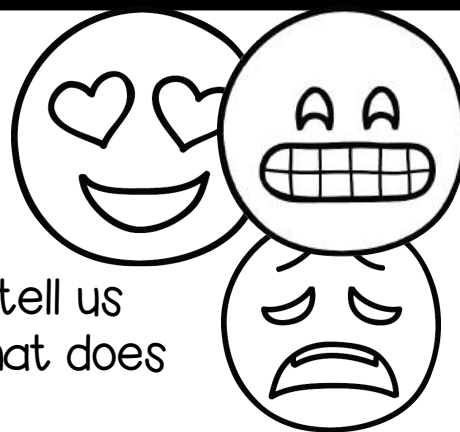
Talk about why the author doesn't tell us exactly how the character feels. What does she do instead?



Name: _____

Feelings

Talk about why the author doesn't tell us exactly how the character feels. What does she do instead?



Flashback

Beginning:

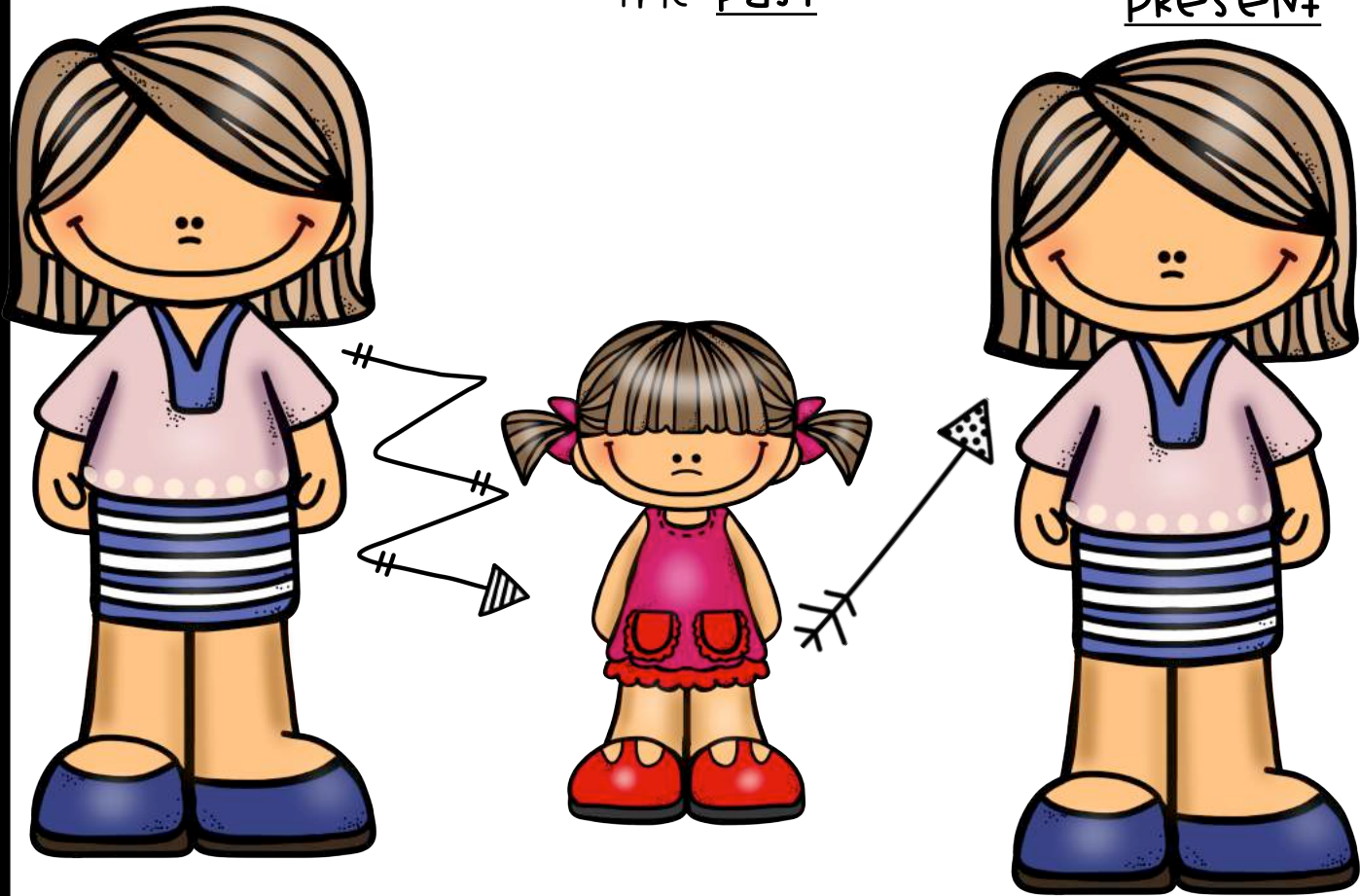
starts in the
present

Middle:

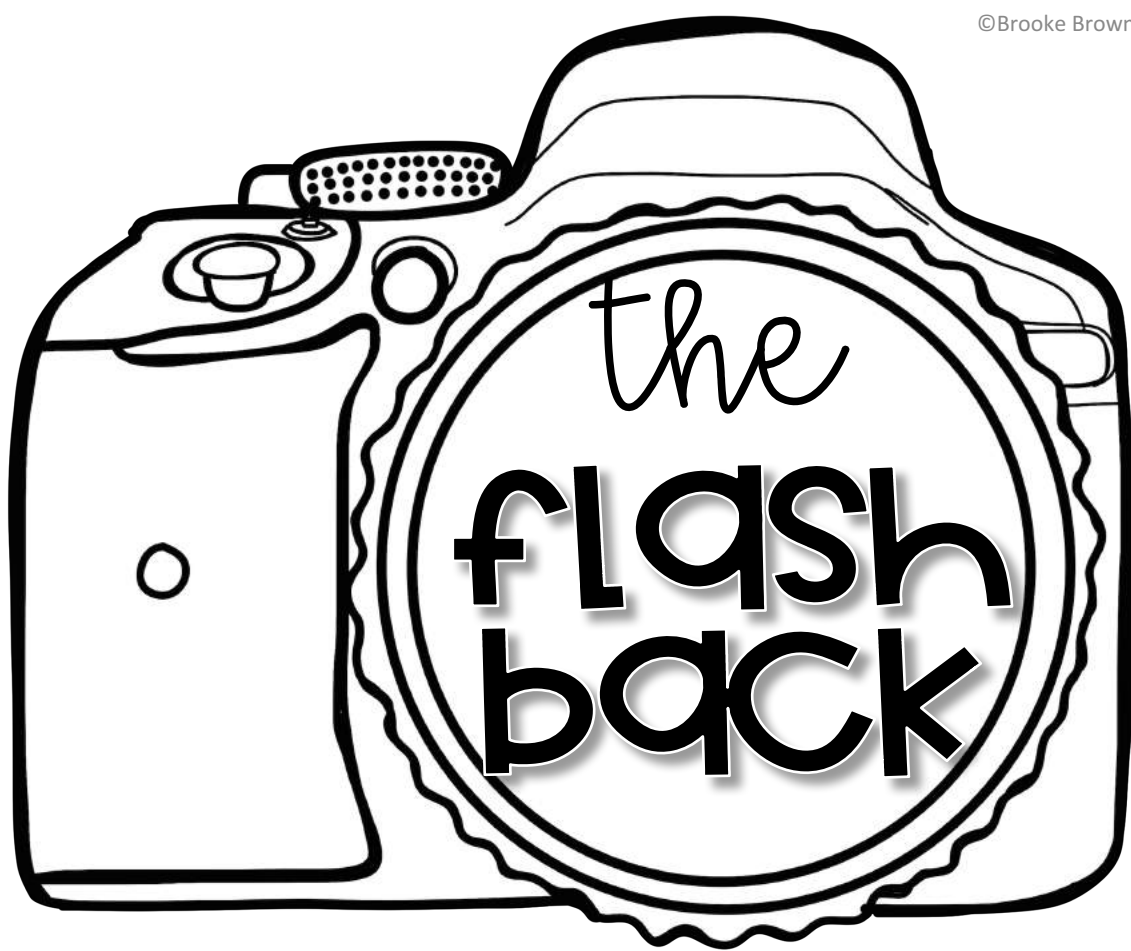
then,
flashbacks to
the past

End:

finishes
in the
present



In Iggly Peck, Architect, the author uses a flashback to give you insight into why Miss Lila Greer wouldn't discuss buildings in her 2nd grade classroom.



beginning

This is a worksheet template. At the top center, there is a small rectangular box with rounded corners containing the word "beginning". Below this box is a large rounded rectangle. Inside the large rectangle, on the left side, is a smaller rounded rectangle. To the right of the smaller rectangle are six horizontal lines for writing.

beginning

This is a second worksheet template, identical to the first one. It features a small rectangular box at the top center with the word "beginning". Below it is a large rounded rectangle containing a smaller rounded rectangle on the left and six horizontal lines on the right for writing.

middle

This is a worksheet template. At the top, there is a small rectangular box with rounded corners containing the word "middle". Below this is a large rounded rectangle. Inside the large rectangle, on the left side, is a smaller rounded rectangle. To the right of the smaller rectangle are six horizontal lines for writing.

middle

This is a second worksheet template, identical to the first one. It features a small rectangular box at the top with the word "middle", followed by a large rounded rectangle containing a smaller rounded rectangle on the left and six horizontal lines on the right.

end

A large rounded rectangle with a thick black border. Inside, on the left, is a smaller rounded rectangle with a thick black border. To the right of this smaller rectangle are six horizontal lines, evenly spaced, for writing.

end

A large rounded rectangle with a thick black border. Inside, on the left, is a smaller rounded rectangle with a thick black border. To the right of this smaller rectangle are six horizontal lines, evenly spaced, for writing.

collapsed



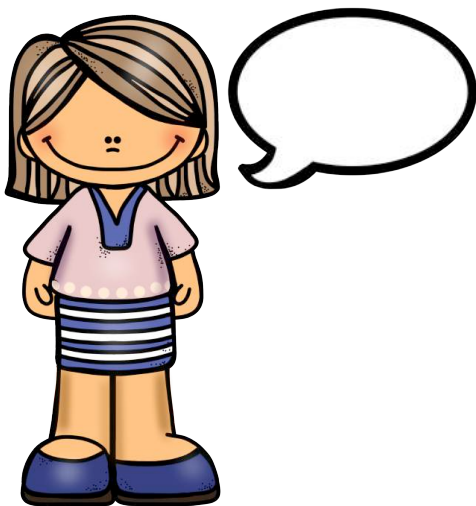
fell down or gave
way

unusual



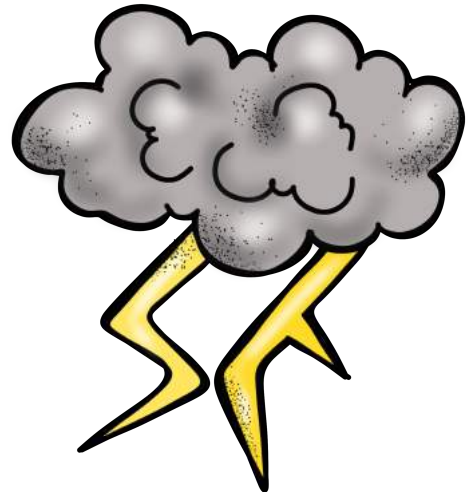
interesting because
it is different

lecture



an educational
talk

severe



intense; very
bad

TEACHER TALK

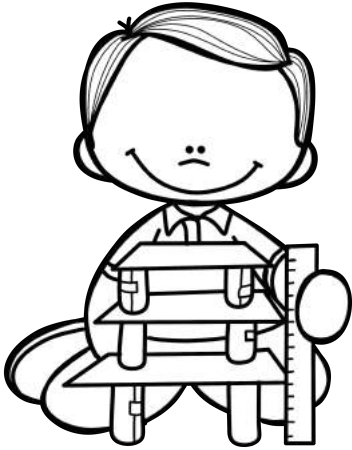
*After going over the definitions, teachers can use the cards in all kinds of ways. Have students pair up. Put one of the cards up on the projector and ask the students to come up with a sentence. Another option would be to have the students act out the words together.



TEACHERS: PRINT ON
COLORED PAPER AND
HAVE STUDENTS HOLD
UP. USE THIS AS A
QUICK WAY TO
GAUGE
UNDERSTANDING!
SCAN THE ROOM TO
LOOK FOR THE
COLOR YOU ARE
LOOKING FOR!

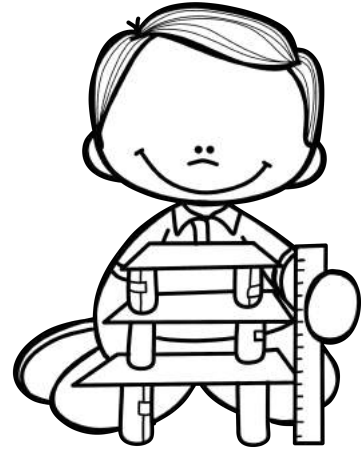


collapsed



fell down or gave
way

collapsed



fell down or gave
way

collapsed



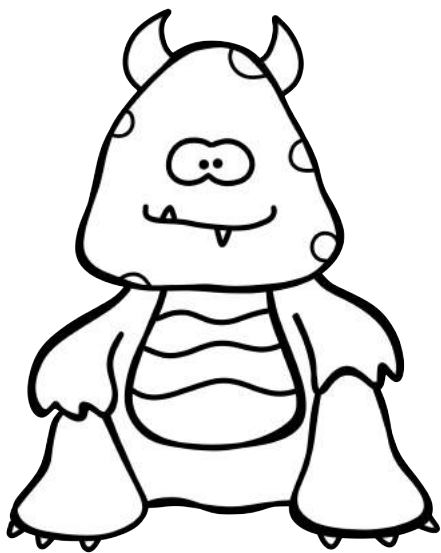
fell down or gave
way

collapsed



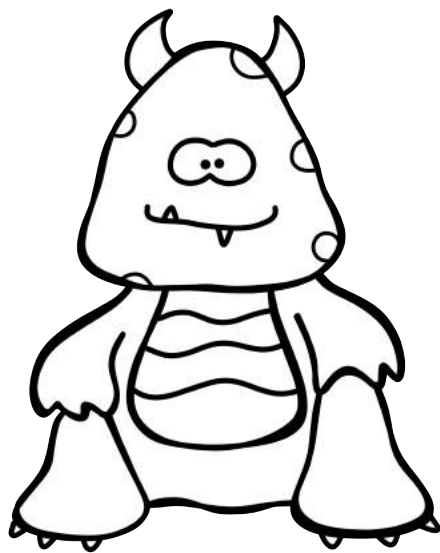
fell down or gave
way

unusual



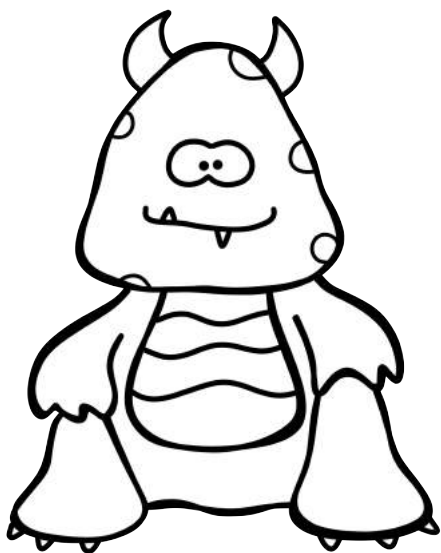
interesting because
it is different

unusual



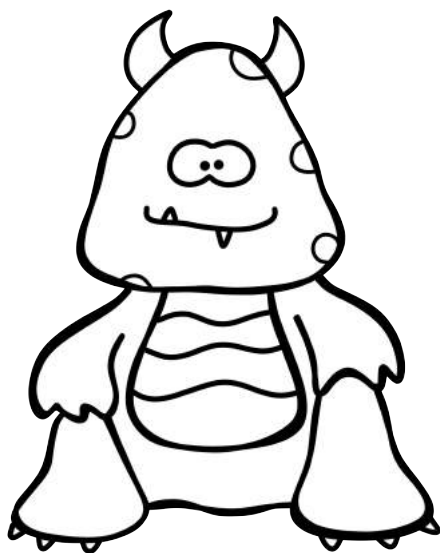
interesting because
it is different

unusual



interesting because
it is different

unusual



interesting because
it is different

lecture



an educational
talk

lecture



an educational
talk

lecture



an educational
talk

lecture



an educational
talk

severe



intense; very
bad

severe



intense; very
bad

severe



intense; very
bad

severe



intense; very
bad

Vocab 3-in-a-Row



interesting because it is different	lecture	fell down on way
severe	space	collapsed
an educational talk	unusual	intense; very bad

interesting because it is different	unusual	fell down on way
collapsed	space	severe
an educational talk	lecture	intense; very bad

DIRECTIONS FOR SET-UP: Each player needs a game board. Students fill in the empty spaces with their four vocabulary words. The students also need "Markers" of some kind to cover the words or definitions.

DIRECTIONS TO PLAY: Teacher will call out either a word or a definition. The students should cover up the matching square. For example- Teacher "severe" Student covers up "intense; very bad." When a student has three in a row, they yell out "Iggy Peck."

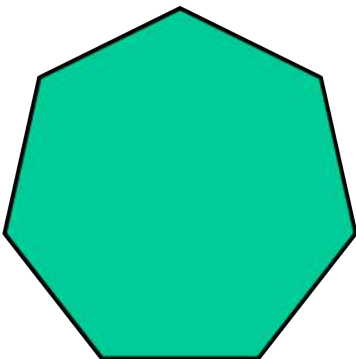
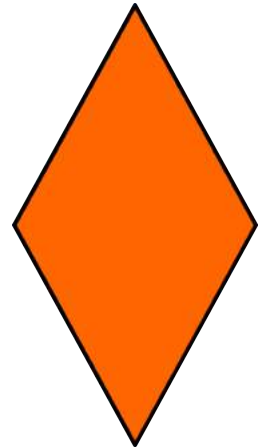
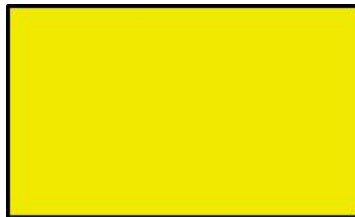
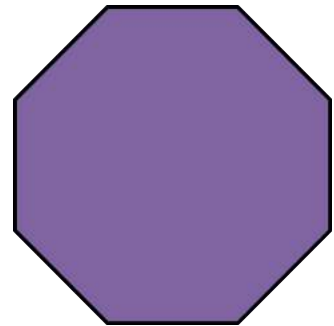
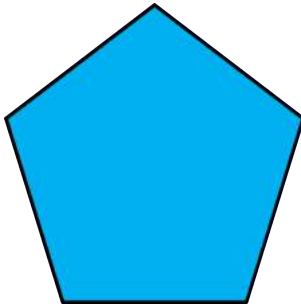
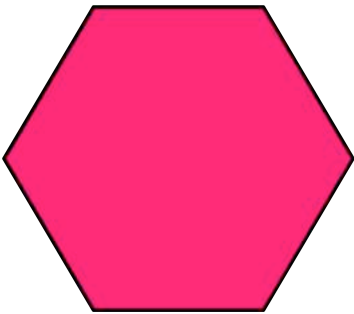
interesting because it is different		fell down or gave way
	free space	
an educational talk		intense; very bad

	fell down or gave way	
intense; very bad	free space	interesting because it is different
	an educational talk	

MATH CONNECTION POLYGONS



A POLYGON IS A CLOSED SHAPE WITH THREE OR MORE STRAIGHT LINES.



Students: Can you create a T-chart with examples and non-examples of polygons?

Sticky Structure

Iggy Peck, Architect



NGSS Standard Alignment: 2-PS1-3: Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object, K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool, K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. Identify and Describe Shapes, Analyze, Compare, Create, and Compose Shapes, Reason with shapes and their attributes.

Challenge Description: Students will construct a variety of structures using fruit snacks and toothpicks. The fruit snacks will connect toothpicks together at the joints, allowing students to experiment with a wide variety of two-dimensional shapes and three-dimensional solids such as cubes, prisms and pyramids. They will discover that certain patterns allow for more stability and balance of 3D structures than others.

Suggested Materials: fruit snacks (2 pouches per student), toothpicks (25 per student)
OPTIONAL: blocks or models of three-dimensional shapes

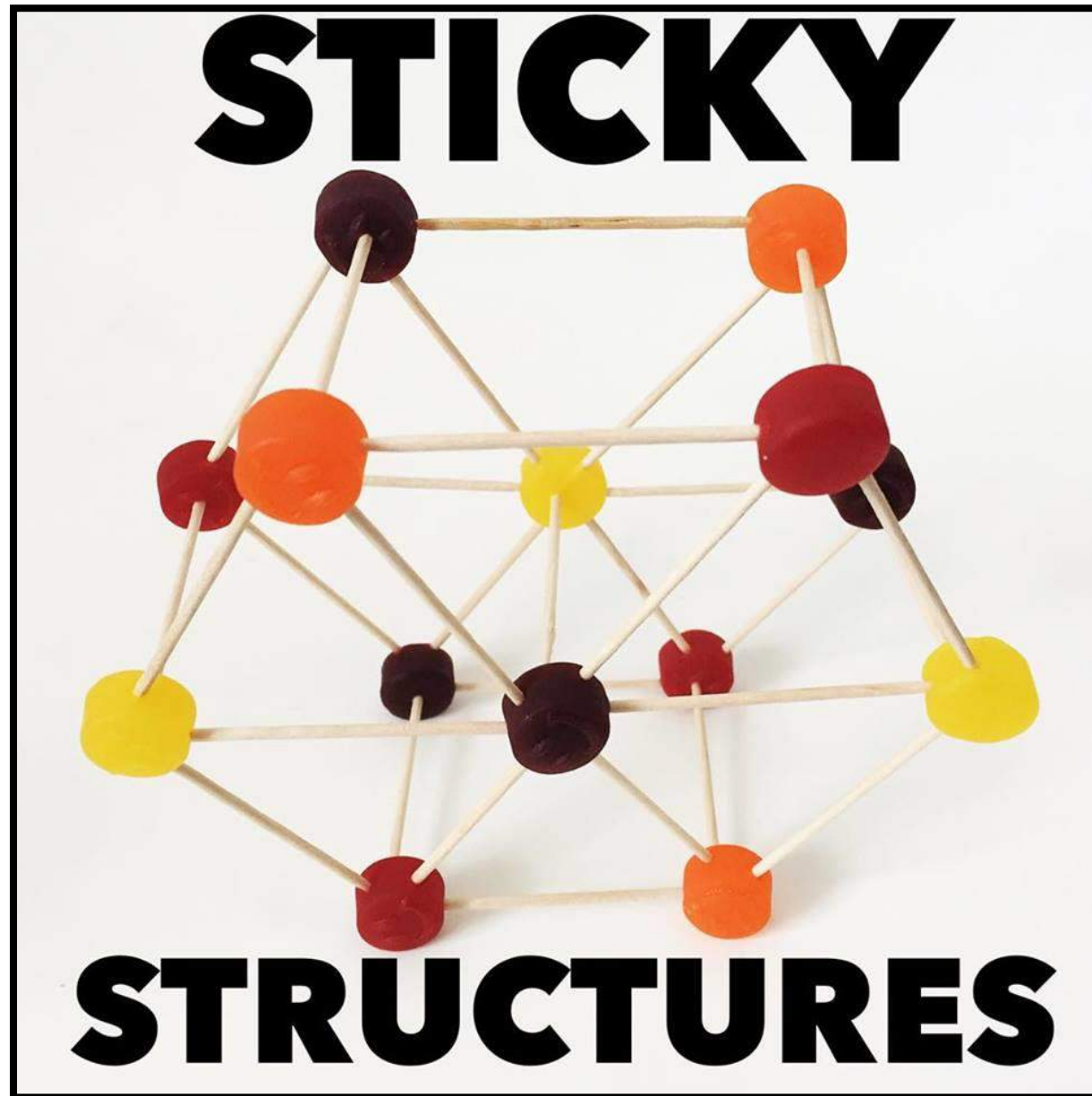
LESSON PLAN

1. Ask students to brainstorm different two-dimensional and three-dimensional shapes. If possible, show students blocks or real models of three-dimensional shapes and have them point out real examples of those shapes in the classroom. Record student ideas on the provided teacher chart and have them add ideas to their individual booklets.
2. Introduce permitted materials and share the challenge instructions. Refer to the provided vocabulary cards as needed throughout the lesson and display them in your classroom. Allow students time to construct shapes and solids with their materials and draw pictures of their creations in their STEM journals.
3. Hold a whole class closing discussion and reflection, allowing students to share what they learned about 2D and 3D shapes and structures and which solids were the most stable and balanced. Record their ideas on the provided teacher chart and have them finish their individual booklets.

STICKY STRUCTURE

Iggy Peck, Architect

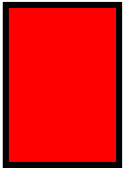
Possible Product



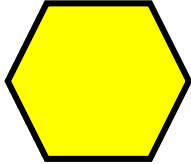
Sticky Structure

Iggy Peck, Architect

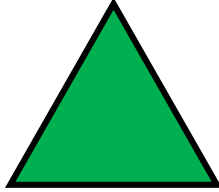
Two-Dimensional Shapes



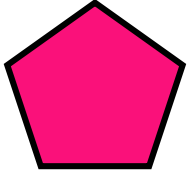
rectangle



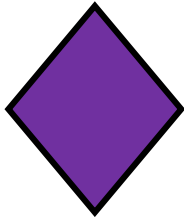
hexagon



triangle



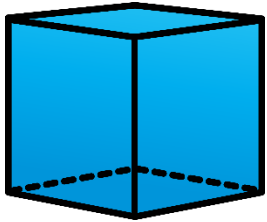
pentagon



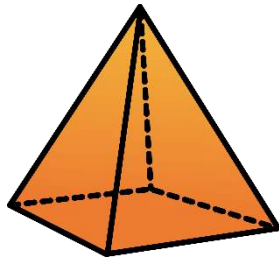
rhombus

Shapes & Solids Found in our classroom

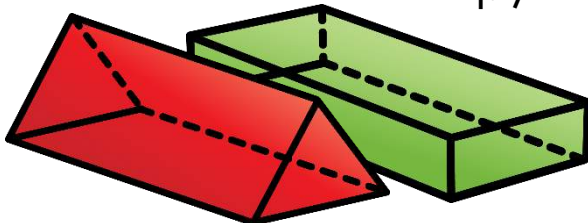
Three-Dimensional Solids



cube



pyramid



prisms

Strongest Shapes



Sticky Structure

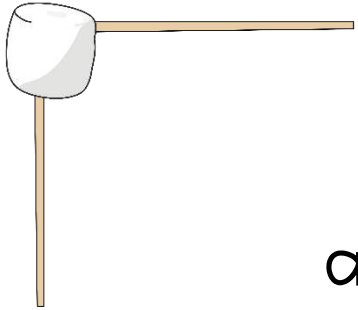
Vocabulary Cards

©Brooke Brown & Katie King



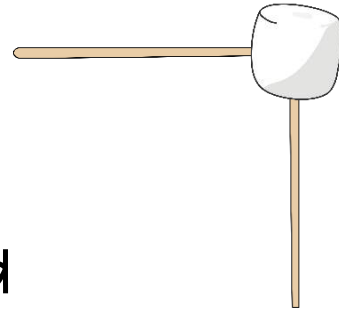
architect

a person who designs buildings



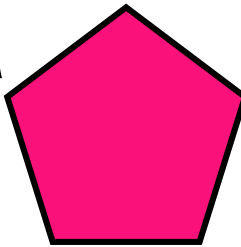
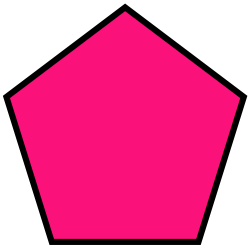
joint

a point in which parts of a structure are joined



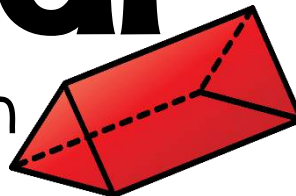
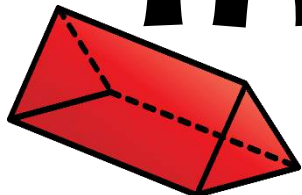
two-dimensional

a flat shape with length and width

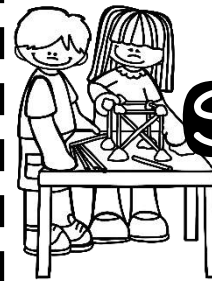


three-dimensional

a solid structure with length, height, and depth

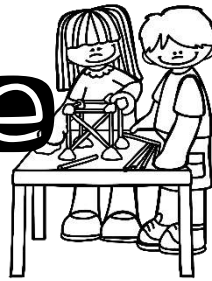


Which shapes and solids were the STRONGEST?



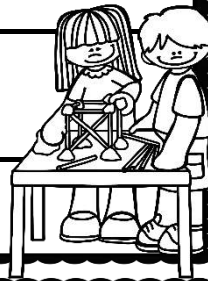
Sticky Structure

Iggy Peck, Architect
Name: _____



STEM CHALLENGE

Can you construct 2D shapes and 3D solids using only fruit snacks and toothpicks?

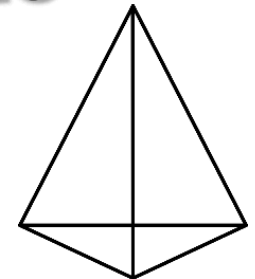
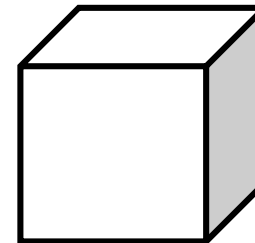


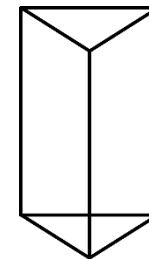
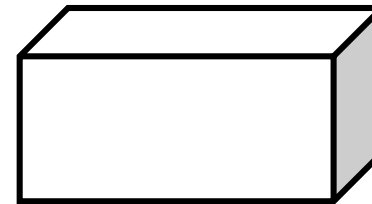
One thing that was EASY:

One thing that was HARD:

One new thing I LEARNED:

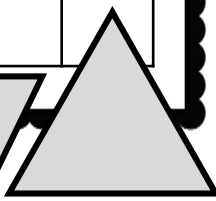
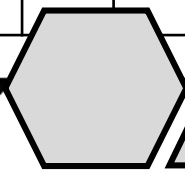
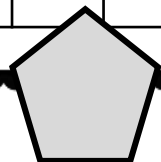
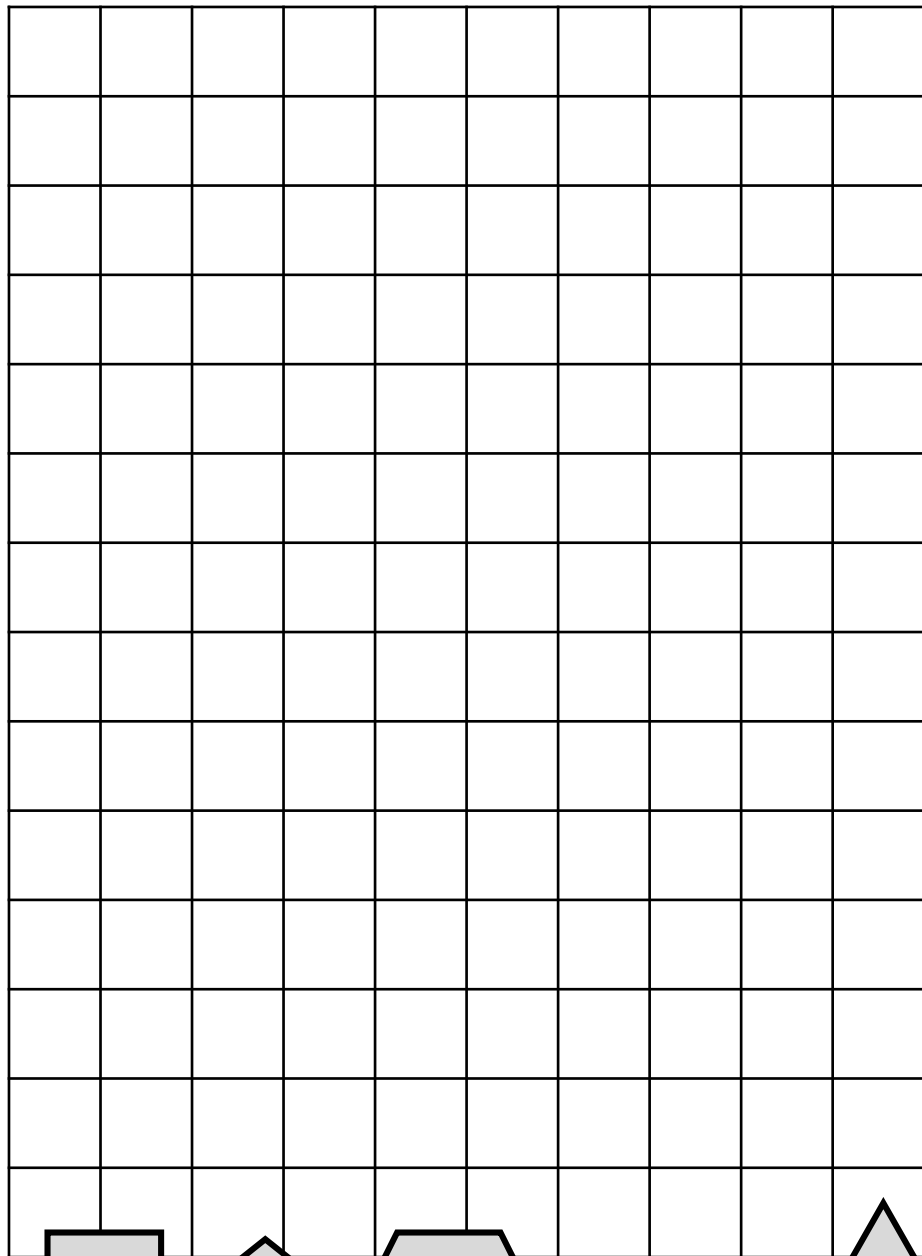
3D Solids





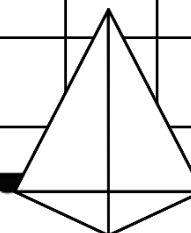
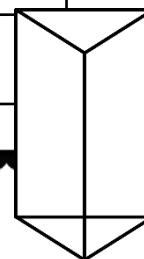
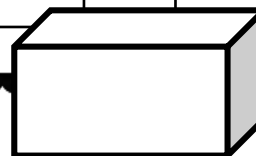
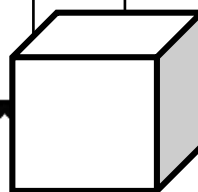
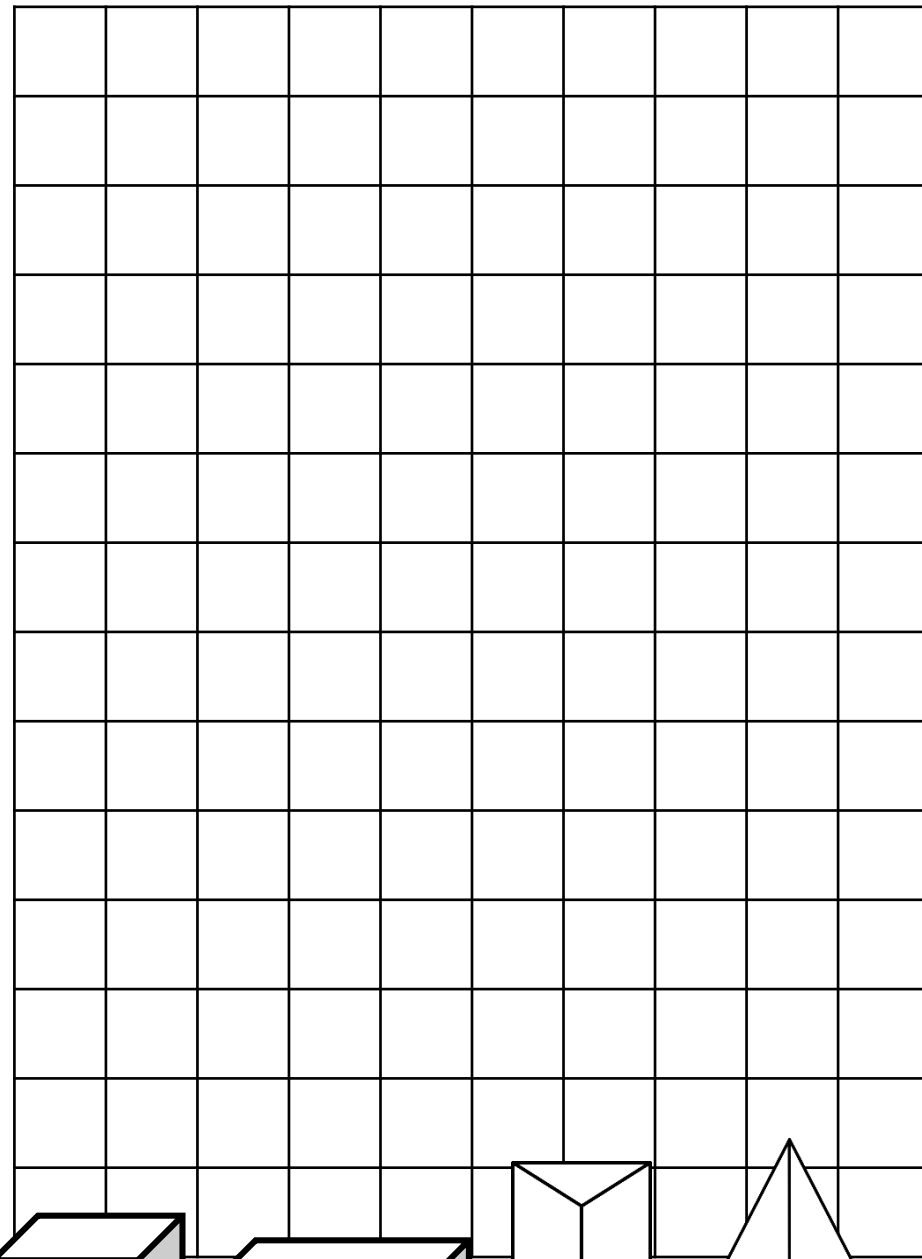
2D Shapes That I Created

Draw and label your 2D shapes.



3D Shapes That I Created

Draw and label your 3D shapes.



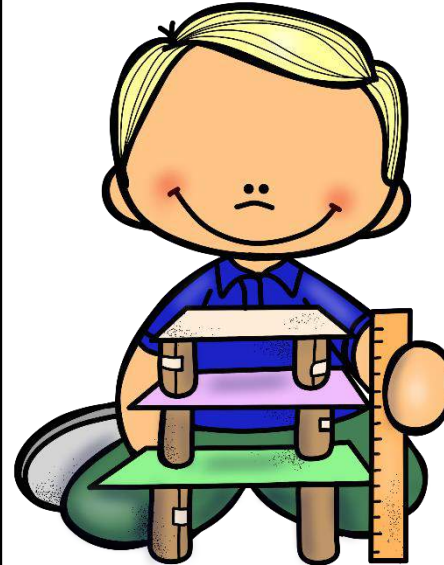
Iggy Peck, Architect

Maker Task Cards

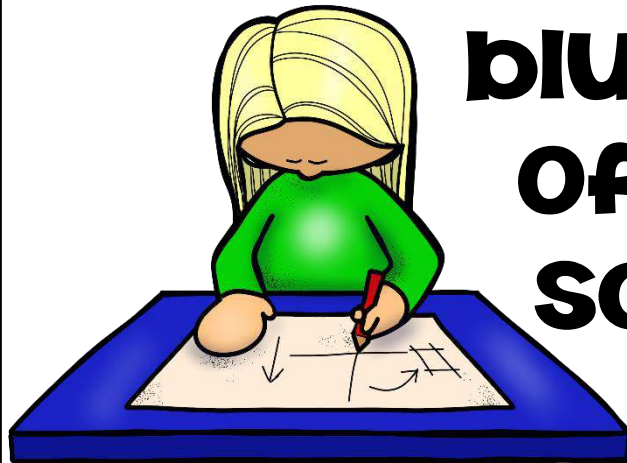
Use the following task cards in a MakerSpace or with STEM Pins for students to make more creations.



**Make a
bridge
that
holds
weight.**



**Make a
tall
tower.**



**Make a
blueprint
of your
school.**



**Make
a blueprint
for a new
playground.**

Dig Deeper Into the Text!

Teacher Questions for **PRESS HERE**



How does the author make you feel like you are a part of this book?

How did you figure out which dots are out of the order in the pattern? Could this help you when you are figuring out math problems?

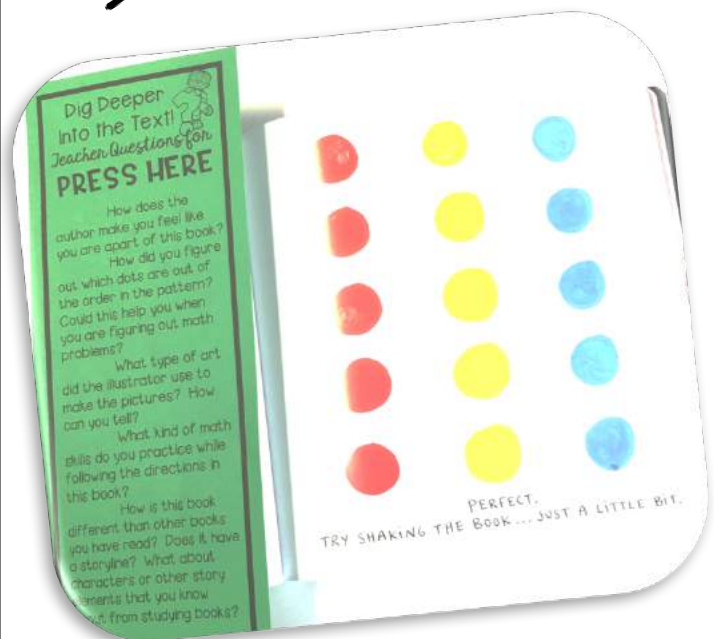
What type of art did the illustrator use to make the pictures? How can you tell?

What kind of math skills do you practice while following the directions in this book?

How is this book different than other books you have read? Does it have a storyline? What about characters or other story elements that you know about from studying books?

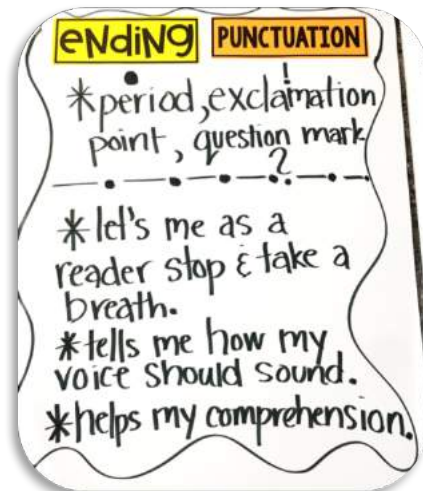
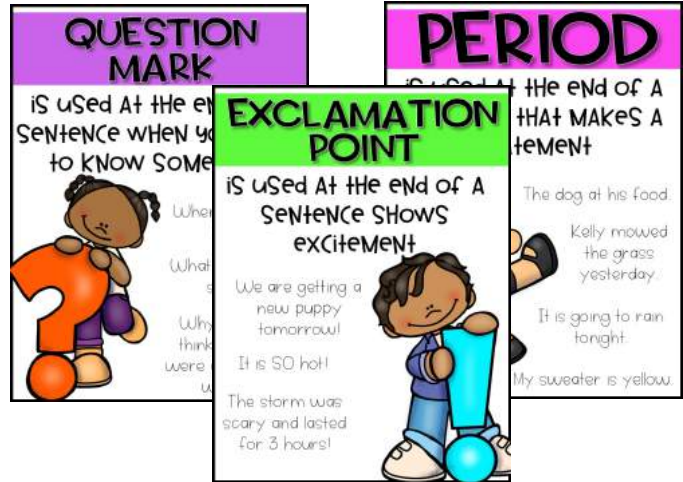
TEACHERS: PRINT
ON COLORED PAPER
AND LAMINATE. USE
THIS BOOKMARK
YEAR AFTER YEAR
TO HELP EXTEND
STUDENTS' THINKING!

Intended
Use



COMPREHENSION

1. Show students the posters with ending punctuation marks. Discuss examples of sentences that end with periods, exclamation points, and question marks. Make a class anchor chart to talk about how punctuation helps you as a reader.



2. Have students fill in the flip flap book to show understanding of ending punctuation.



COMPREHENSION

3. Have students write three sentences, one with each kind of ending punctuation.

Name: _____

Punctuation

Write a sentence with the three different kinds of ending punctuation.



4. Optional Extension Activity for High Flyers! Go over the poster and have students construct the Cause and Effect Cloud and Raindrops. Use ribbon or string to tie on raindrops!



PERIOD

is used At the end of A
Sentence that MAKES A
Statement



The dog ate his food.

Kelly mowed
the grass
yesterday.

It is going to rain
tonight.

My sweater is yellow.

EXCLAMATION POINT

is used At the end of A
Sentence that Shows
excitement

We are getting a
new puppy
tomorrow!

It is SO hot!

The storm was
scary and lasted
for 3 hours!



QUESTION MARK

is used At the end of A
Sentence when you want
to know something



When will you be
home?

What time is the
show?

Why do you
think the kids
were absent last
week?

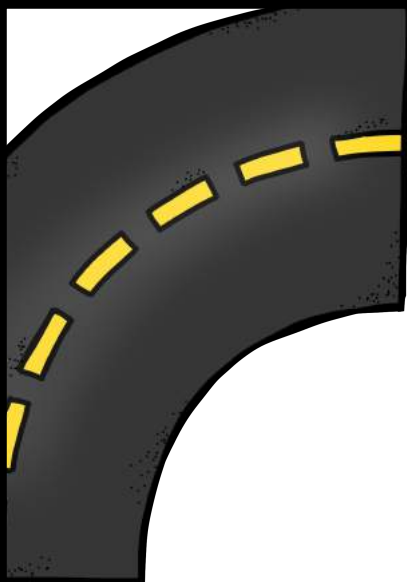
condition

PUNCTUATION



The kids will be
here by three
o'clock

Do you know
when we will get
more ice cream



"Get out of the
road before a
car comes"

Cut around the template. Cut between the three sections and glue down the "ending punctuation" section.

ending punctuation



period

EXCLAMATION
POINT



QUESTION
MARK

Name: _____



Punctuation

Write a sentence with the three different kinds of ending punctuation.







Name: _____



Punctuation

Write a sentence with the three different kinds of ending punctuation.







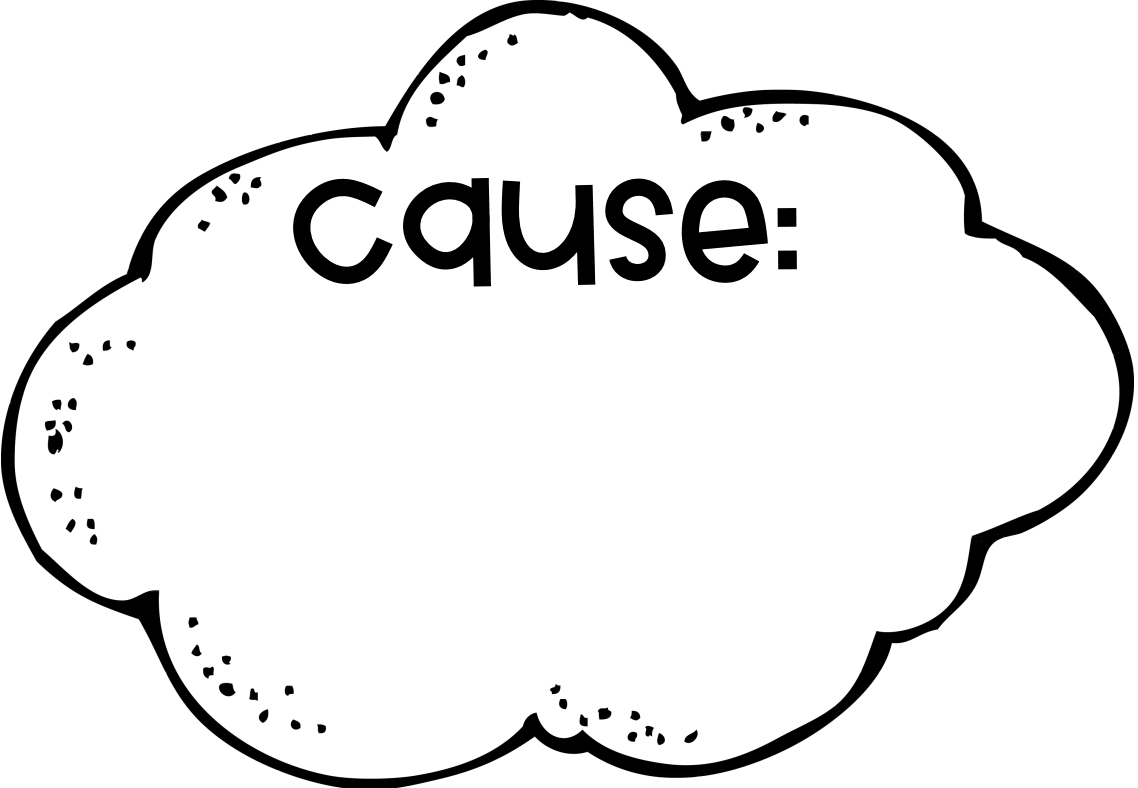
Cause and Effect

Cause:

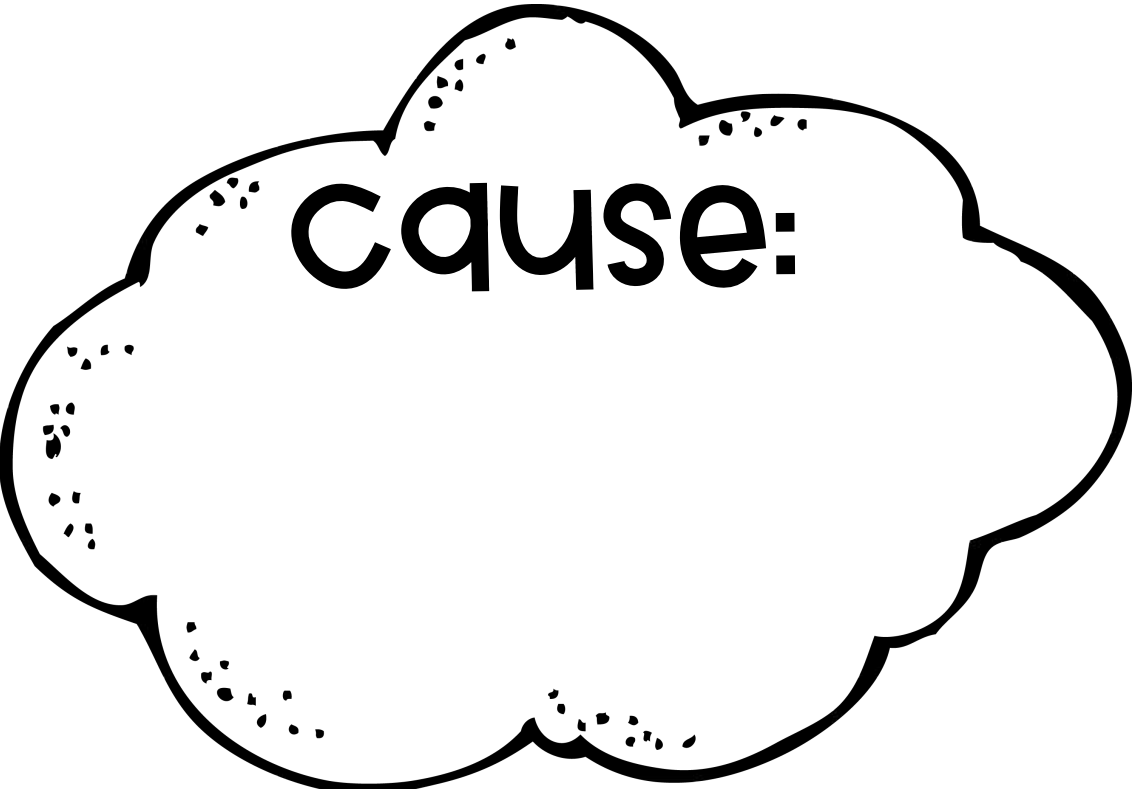
the reason
why something
happens

Effect: the result

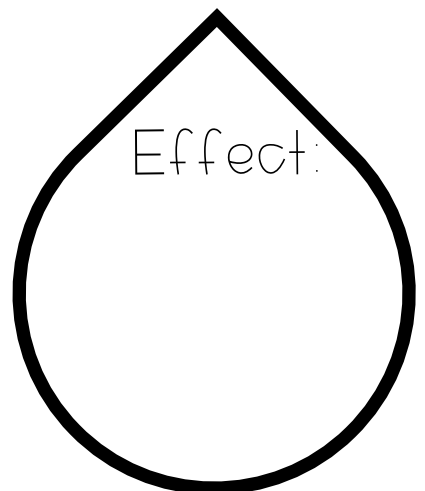
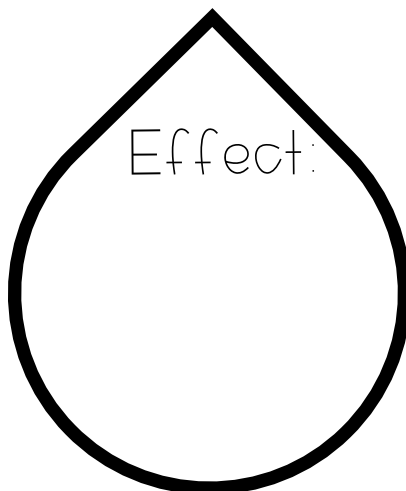
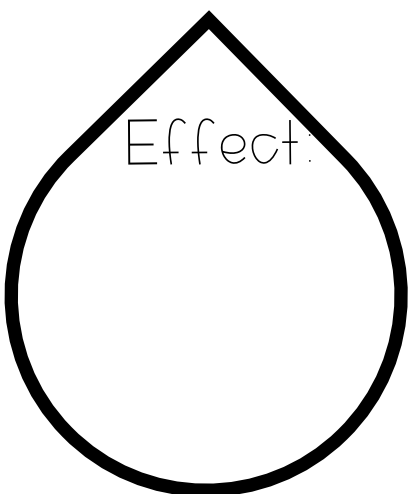
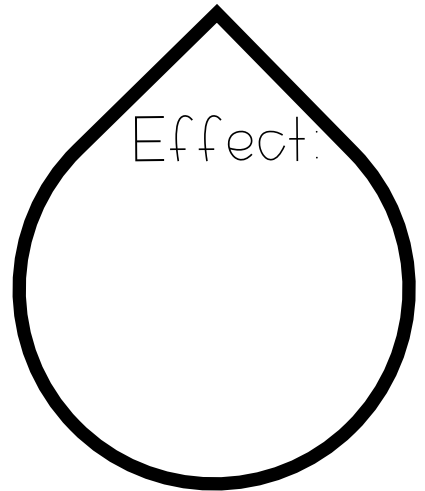
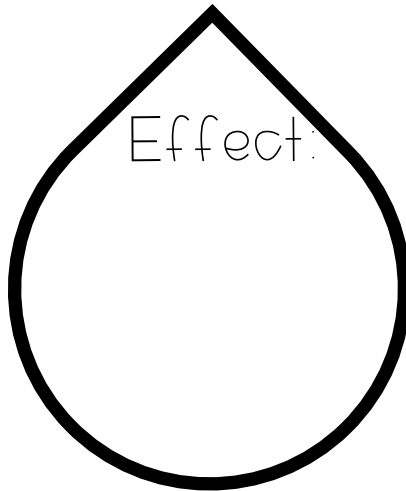
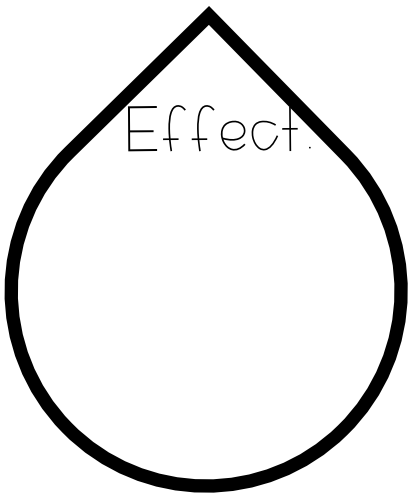
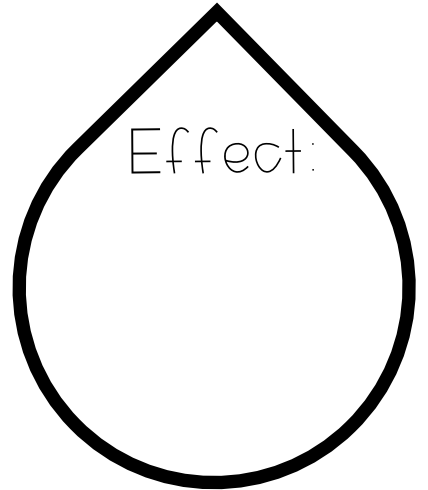
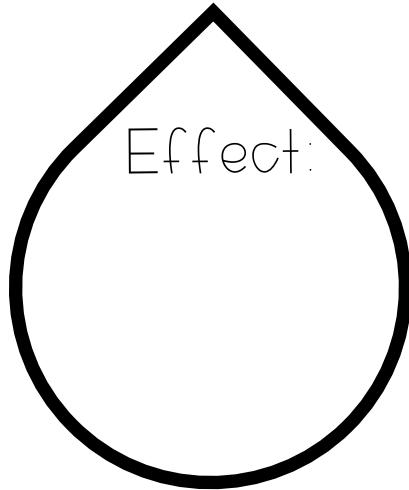
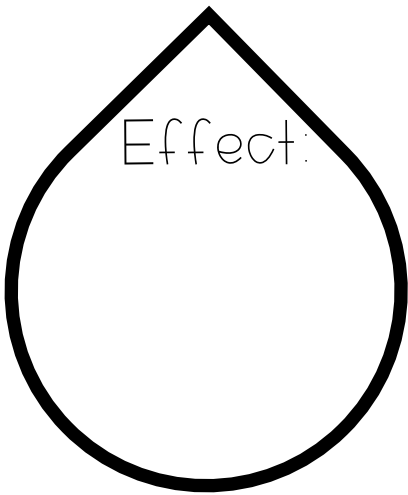




cause:



cause:



tilt



to move to an
angle

gently



with a kind
manner

bravo



a word used to
show approval

sequence



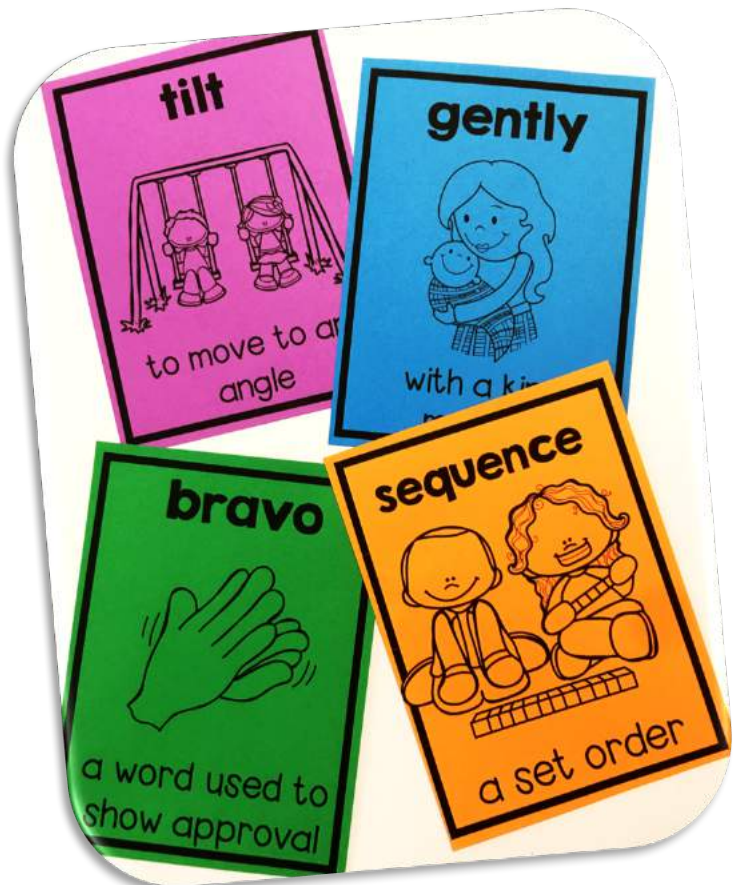
a set order

TEACHER TALK

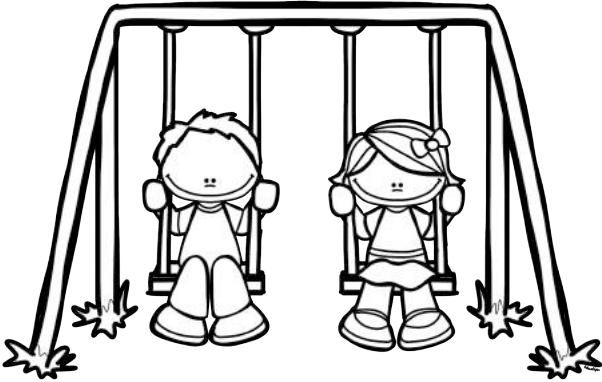
*After going over the definitions, teachers can use the cards in all kinds of ways. Have students pair up. Put one of the cards up on the projector and ask the students to come up with a sentence. Another option would be to have the students act out the words together.



TEACHERS: PRINT ON
COLORED PAPER AND
HAVE STUDENTS HOLD
UP. USE THIS AS A
QUICK WAY TO
GAUGE
UNDERSTANDING!
SCAN THE ROOM TO
LOOK FOR THE
COLOR YOU ARE
LOOKING FOR!

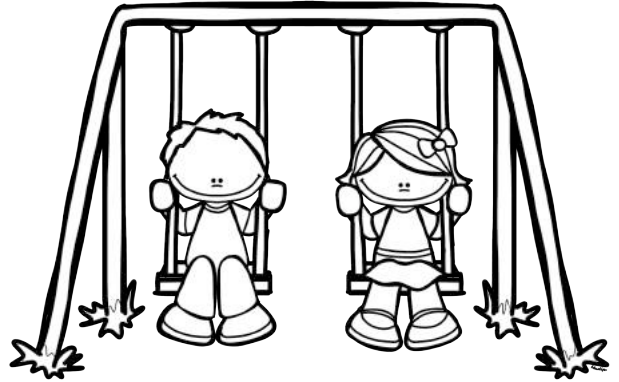


tilt



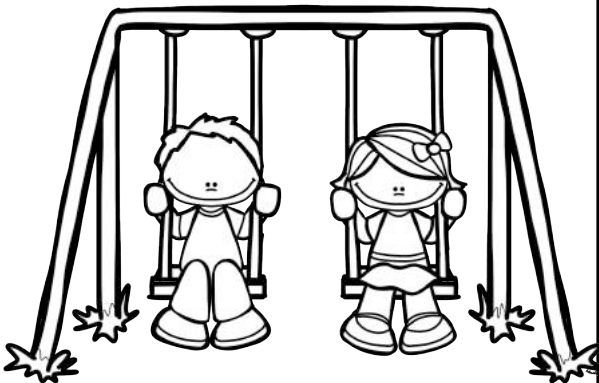
to move to an
angle

tilt



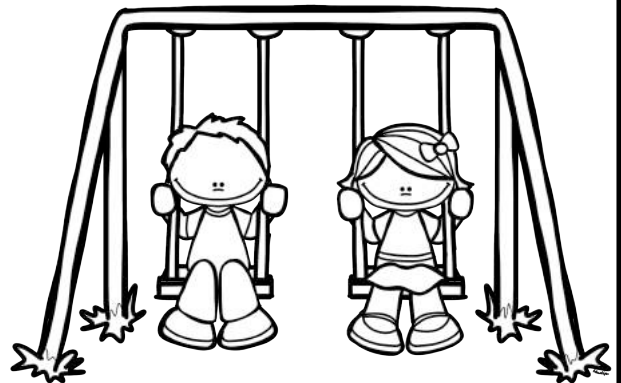
to move to an
angle

tilt



to move to an
angle

tilt



to move to an
angle

gently



with a kind
manner

gently



with a kind
manner

gently



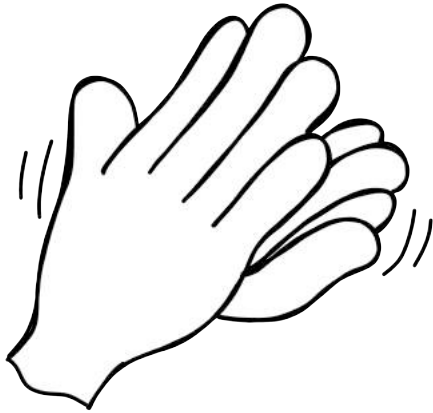
with a kind
manner

gently



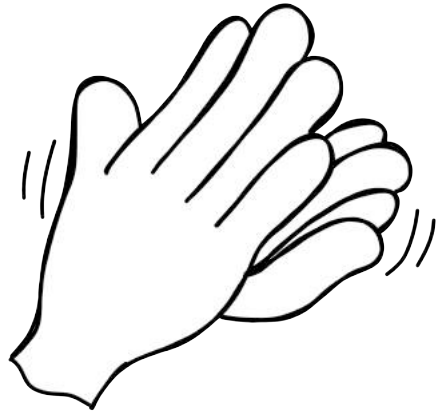
with a kind
manner

bravo



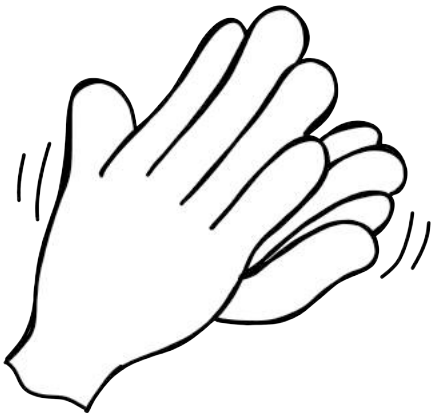
a word used to
show approval

bravo



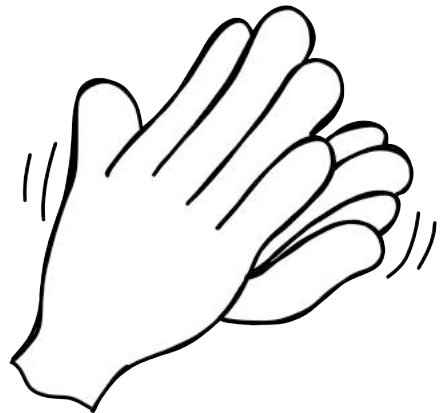
a word used to
show approval

bravo



a word used to
show approval

bravo



a word used to
show approval

sequence



a set order

sequence



a set order

sequence



a set order

sequence



a set order

Vocab 3-in-a-Row



DIRECTIONS FOR SET-UP: Each player needs a game board. Students fill in the empty spaces with their four vocabulary words. The students also need "Markers" of some kind to cover the words or definitions.

DIRECTIONS TO PLAY: Teacher will call out either a word or a definition. The students should cover up the matching square. For example- Teacher "tilt" Student covers up "to move to an angle." When a student has three in a row, they yell out "Press Here."

a word used to show approval		with a kind manner
	free space	
to move to an angle		a set order

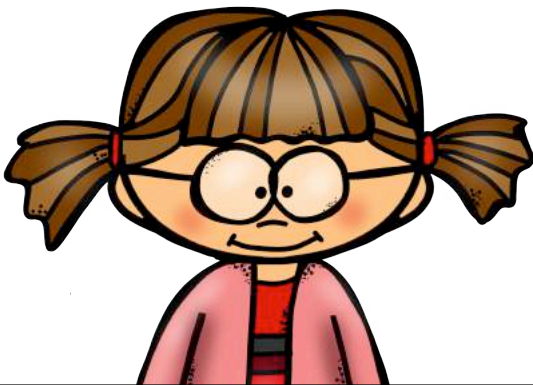
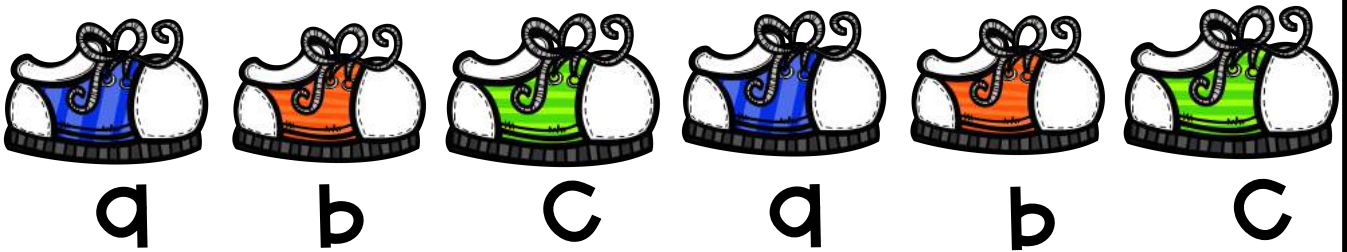
a set order		with a kind manner
	free space	
to move to an angle		a word used to show approval

MATH CONNECTION PATTERNS



**A PATTERN IS SOMETHING THAT IS REPEATED
OVER AND OVER AGAIN.**

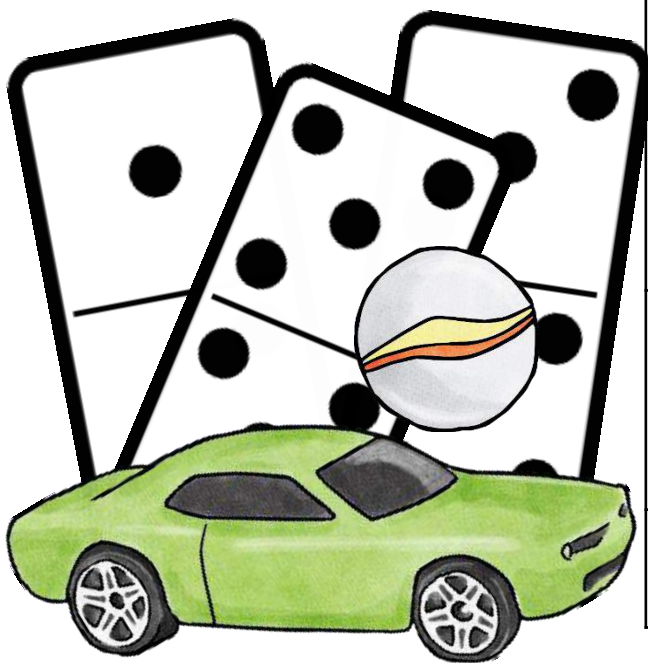
Here are two types of patterns:



Can you find patterns
in your classroom? What
about outside the window?
There are patterns all around
us! We just have to keep a
sharp eye out!

Chain Reactions

Press Here



NGSS/CCSS Standard Alignment: K-PS2-1: Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object, K-PS2-2: Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or pull K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool, K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem

Challenge Description: Students will use a variety of toys and school supplies to create chain reactions in which one object is pushed or pulled (action) to collide with another object (reaction). Examples: toy car rolls into a domino train to push it over, marble rolls down a ramp to push a toy car, dominoes fall down to push an object off the end of a table. Students can set up 2 event chain reactions or even 3 or more events.

Suggested Materials: toy cars, dominoes, marbles, toy balls, wooden planks, pattern blocks, basic school supplies

LESSON PLAN

1. Ask students to brainstorm different ways that objects can move. Record their answers on the teacher chart and have them list ideas in their student booklets. (Examples might include: roll, slide, turn, flip, jump, fall). Ask them to brainstorm ways that we make objects move (**push or pull**). Refer to the provided vocabulary cards as needed throughout the lesson and display them in your classroom. Share Newton's third law of motion with students.
2. Introduce permitted materials and share the challenge. Allow students to share ideas for how to create chain reactions with the provided materials and if necessary, choose one to share as an example. Allow students at least 45 minutes with partners or small groups to create different chain reactions and record in their STEM journals.
3. Hold a whole class closing discussion and reflection, allowing students to share what they created and what they learned about actions and reactions. Ask them to compare and contrast chain reaction designs and how they worked. Record their ideas on the provided teacher chart and have them finish their individual booklets.

Chain Reactions

Press Here

Possible Product



Chain Reactions

Press Here

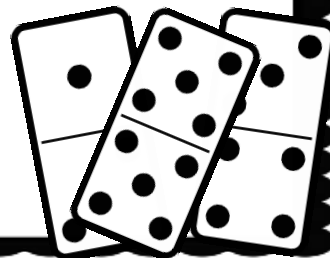
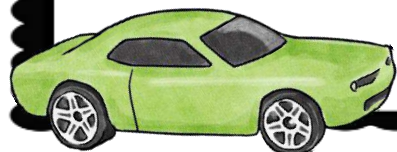
Ways that objects Move

**Newton's 3rd Law
of Motion**

For every **ACTION**,
there is an equal and
opposite **REACTION**.

How objects Move

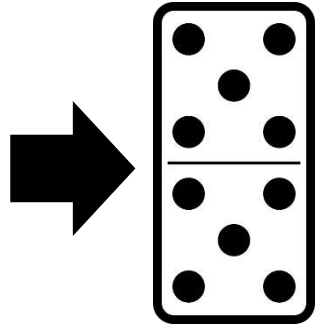
our chain Reactions



Chain Reactions

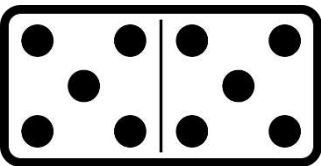
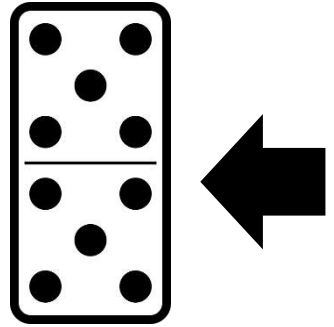
Vocabulary Cards

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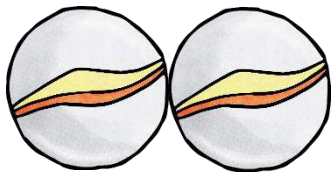
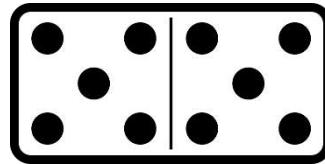
action

a movement



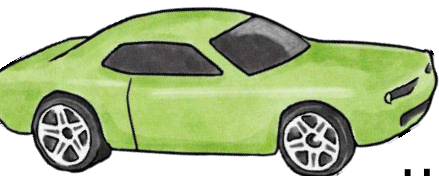
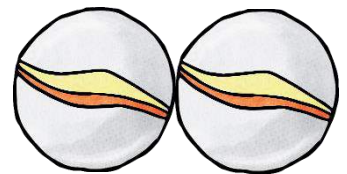
reaction

an event that occurs because of an action



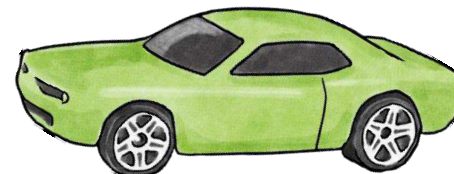
collide

to hit with force when moving



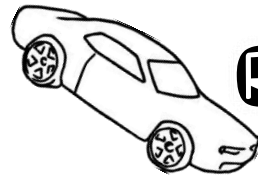
motion

the action of moving or being moved



My chain Reactions

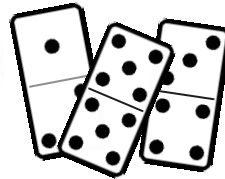
ACTION (If you....)	REACTION (Then...)



**Chain
Reactions**

Press Here

Name: _____



STEM CHALLENGE

Can you create your own chain reactions?

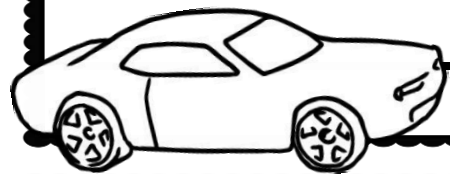
Newton's 3rd Law of Motion

For every

_____,
there is an equal and
opposite

_____.

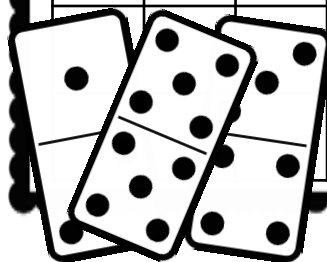
ways That Objects Move



How we Move Objects

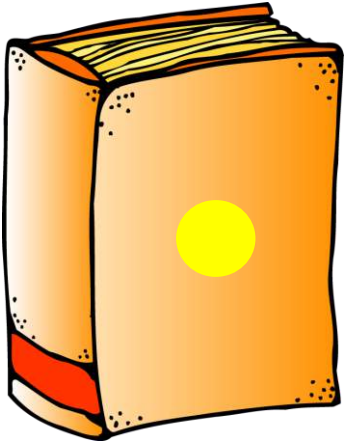
or

MY chain Reactions

A large grid of 10 columns and 20 rows for writing, with three dominoes in the bottom left corner.

Press Here Maker Task Cards

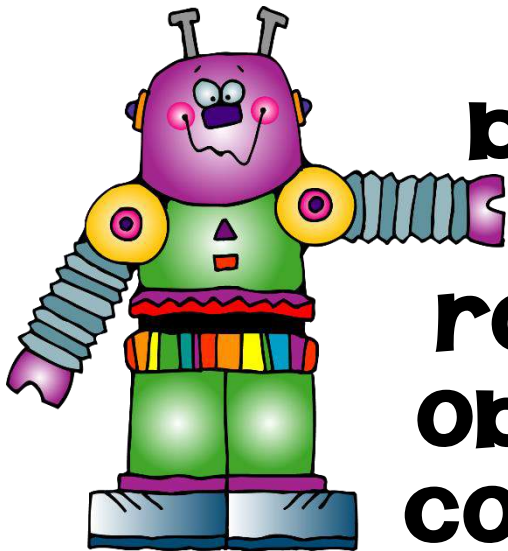
Use the following task cards in a MakerSpace or with STEM Pins for students to make more creations.



Make your own version of a "press Here" book.



Make a trap.



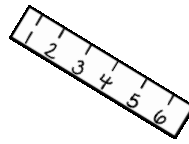
Make a blueprint for a robot that obeys your commands.



Make a chain reaction using only school supplies.



STEM Challenge Assessment Rubric



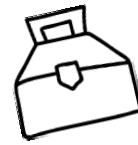
Challenge: _____
 Date: _____
 Student Name: _____

3	2	1
Student followed all instructions for challenge.	Student followed some instructions for challenge.	Student did not follow instructions for challenge.
Student used best effort and perseverance on challenge.	Student used good effort and perseverance on challenge.	Student did not show effort or perseverance on challenge.
Student completed assigned blueprint and reflection sheet.	Student partially completed assigned blueprint and reflection sheet.	Student did not complete assigned blueprint and recording sheet.
Student showed accuracy in testing, calculating, and measuring.	Student showed some accuracy in testing, calculating, and measuring.	Student did not show accuracy in testing, calculating, or measuring.
Student fully cooperated with group members and contributed fairly.	Student partially cooperated with group members and contributed fairly.	Student struggled to cooperate with group members and/or failed to contribute.
Student fully participated in class discussions.	Student somewhat participated in class discussions.	Student did not participate in class discussions.

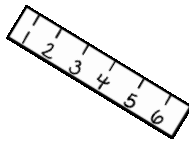
TOTAL POINTS: _____/18

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Comments: _____



STEM Challenge Assessment Rubric



Challenge: _____
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TOTAL POINTS: _____/18

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Comments: _____



We Need Supplies for Storybook STEM!



Dear Families,

We are learning all about Science, Math, Engineering, and Technology through Storybook STEM lessons, and we need your help! If you are able to donate any of the following supplies for our STEM Challenges, please detach and return the form below and send back to school with your child. We greatly appreciate your support and generosity!

We are in need of the following items by _____.

Thank you so much for supporting our Storybook STEM Lessons!
Please contact me at _____ with any questions.

Sincerely,

If you are able to donate, please detach and return the form below:

Parent Name(s): _____

Child's Name: _____

I am able to donate: _____

credits

Thank you for your purchase!

Created by
Brooke Brown & Katie King

