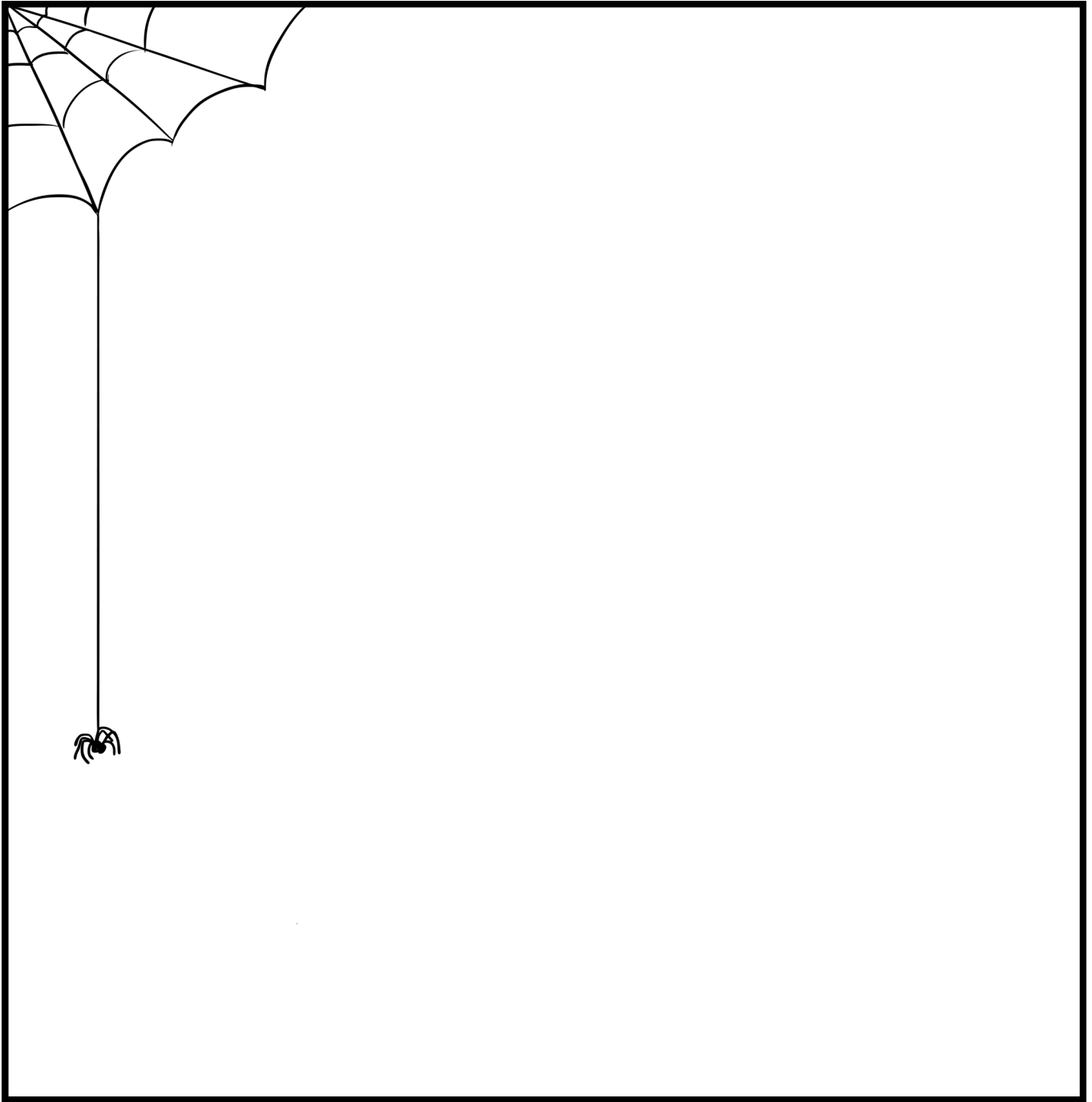


MY HALLOWEEN JOURNAL



My Halloween Costume

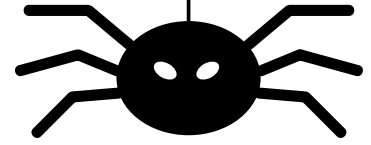
LITTLE BINS FOR LITTLE  HANDS

HALLOWEEN WRITING ACTIVITY

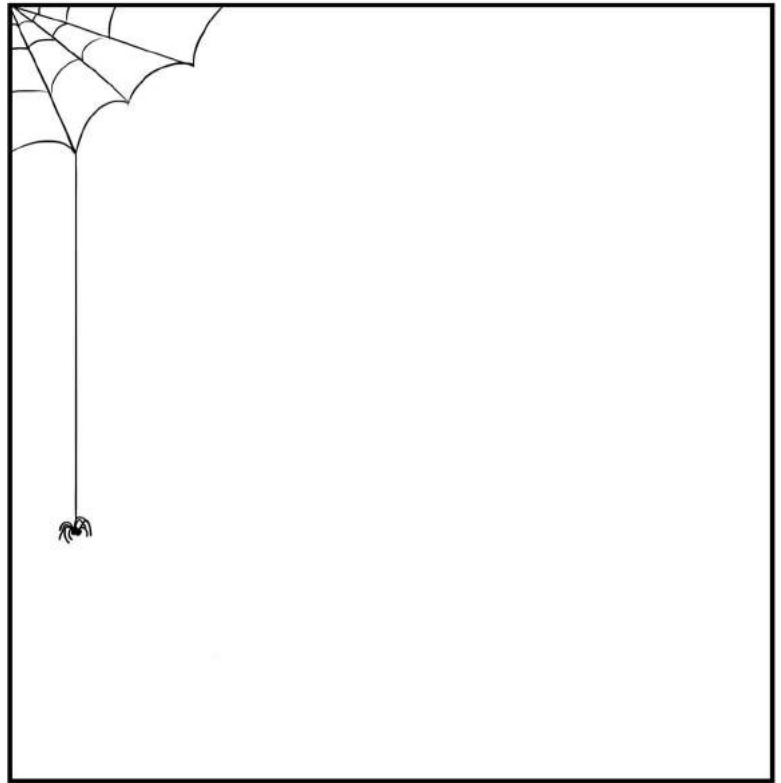
Our NEW cover page includes the opportunity to draw and write about a Halloween costume using observations.

What's Included:

- Halloween cover page with the space to draw or plan a Halloween costume
- Hints to extend the activity
- Writing prompt for the Halloween costume



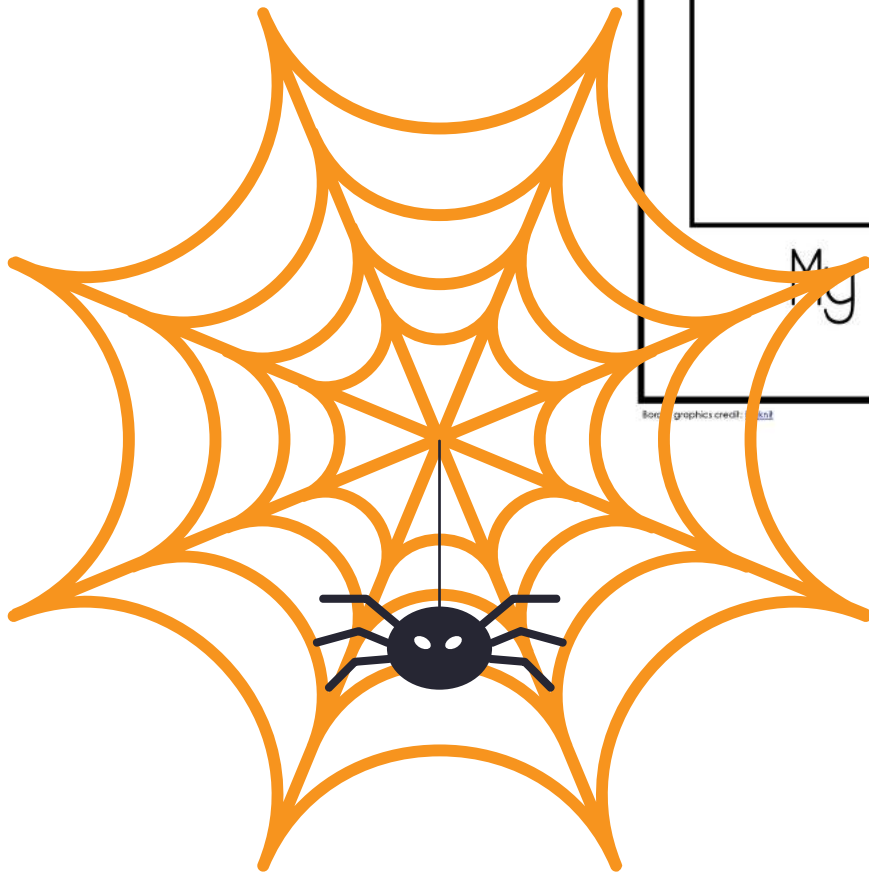
MY HALLOWEEN JOURNAL



My Halloween Costume

LITTLE BINS FOR LITTLE HANDS

Illustration graphics credit: [twinkl](#)



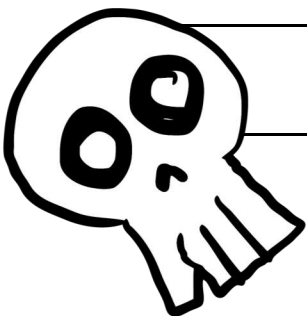
Directions:

On the cover of your Halloween journal, draw yourself wearing your Halloween costume. Your drawing can be based on the costume you already have to wear or a costume you would like to make in

Write down words that come to mind when you think about your costume.

Writing Extension:

Write about why you chose this particular costume?



HALLOWEEN SCIENCE & STEM PACK

CANDY CORN TOWER CHALLENGE

Can you make a tower out of candy corn?

CHALLENGE



MEASURE

Number of

ENGLISH

Ho

He

H

ME

BEST SCIENCE AND ENGINEERING PRACTICES

It is important to note that the scientific method is not a linear set of steps, and you can adapt it to fit your investigation.

1. I can ask questions.
2. I can develop and use models.
3. I can plan and carry out investigations.
4. I can analyze and interpret data.
5. I can use math and computational thinking.
6. I can construct explanations.
7. I can engage in arguments from evidence.
8. I can obtain, evaluate, and communicate information.

BAT BOX CHALLENGE

One evening at dusk, you notice bats flying around your house. Next, you realize your house doesn't have a bat box on it! Now you need to design and build the best bat box ever. Make sure to do your research on bats and the use of bat boxes first! What makes for a good bat house and where should you put one?

These science activity cards are designed to be printed double sided on 8.5 x 11 paper.

Spidery Oobleck: Is it a liquid or a solid?

YOU WILL NEED:

- 2 cup cornstarch
- 1 cup water
- Food Coloring (optional)
- Halloween play accessories (optional)
- Baking Dish
- Spoon

DIRECTIONS:

1. In your bowl or baking dish, add the cornstarch. You can start mixing the oobleck in a bowl and then transfer it to a baking dish if you prefer.
2. If you want to give your oobleck a color, add food coloring to your water first. For vibrant color use a good amount of food coloring. Use red and yellow to make a good orange color for the Halloween theme.
3. You can start by mixing up your oobleck with a spoon, but to get a good mix you'll need to use your hands. You may either need to add a bit more cornstarch or a bit more water to get the right consistency.
4. Once you get the right consistency, you can add your Halloween accessories.



Fizzy Witch's Cauldron: What happens when an acid & base mix?

YOU WILL NEED:

- A cauldron (or bowl)
- Baking soda
- White vinegar
- Food coloring
- Dish soap
- Eyeballs

DIRECTIONS:

1. Add a heaping amount of baking soda to your bowl or cauldron. This experiment can be messy, so be sure to place your bowl on a tray, in the sink, or outside.
2. Add a squirt of dish soap and food coloring to the baking soda.
3. Time to add your spooky Halloween eyeballs or other accessories into the cauldron.
4. Now pour in white vinegar onto the baking soda and the bubbling brew.



Halloween Engineering Activity Supply List

Acrylic paint
Halloween
ing soda
ties
y corn
oard
filters
Golf tees
Hamm
Hime
LEO
Magne
Marbles
Screws
Shredded paper
Skewers (plastic)
Skewers
Soll
Sponges
rings
rpler
tws
ig
foam balls
ir cubes
measure
hts
rper rolls
ks
e
Inks
Spider webs

INTRODUCTION:

Welcome to your Halloween Theme STEM Pack filled with great science activities and STEM projects every junior scientist or engineer should try! I hope it sparks creativity and curiosity within your young scientists, inventors, and engineers.

In this pack, find a fun selection of Halloween theme activities, challenges, and experiments. I have added supplies, setup instructions, and simple science information for each activity. The pack also includes STEM projects and extras to share with your kids. Our packs now include simple writing activities!

Feel free to use this pack with one junior scientist or a whole group of junior scientists. You may copy activities as many times as you like for your class, but please send your friends to grab their pack instead of sharing files.

~ Thank you!



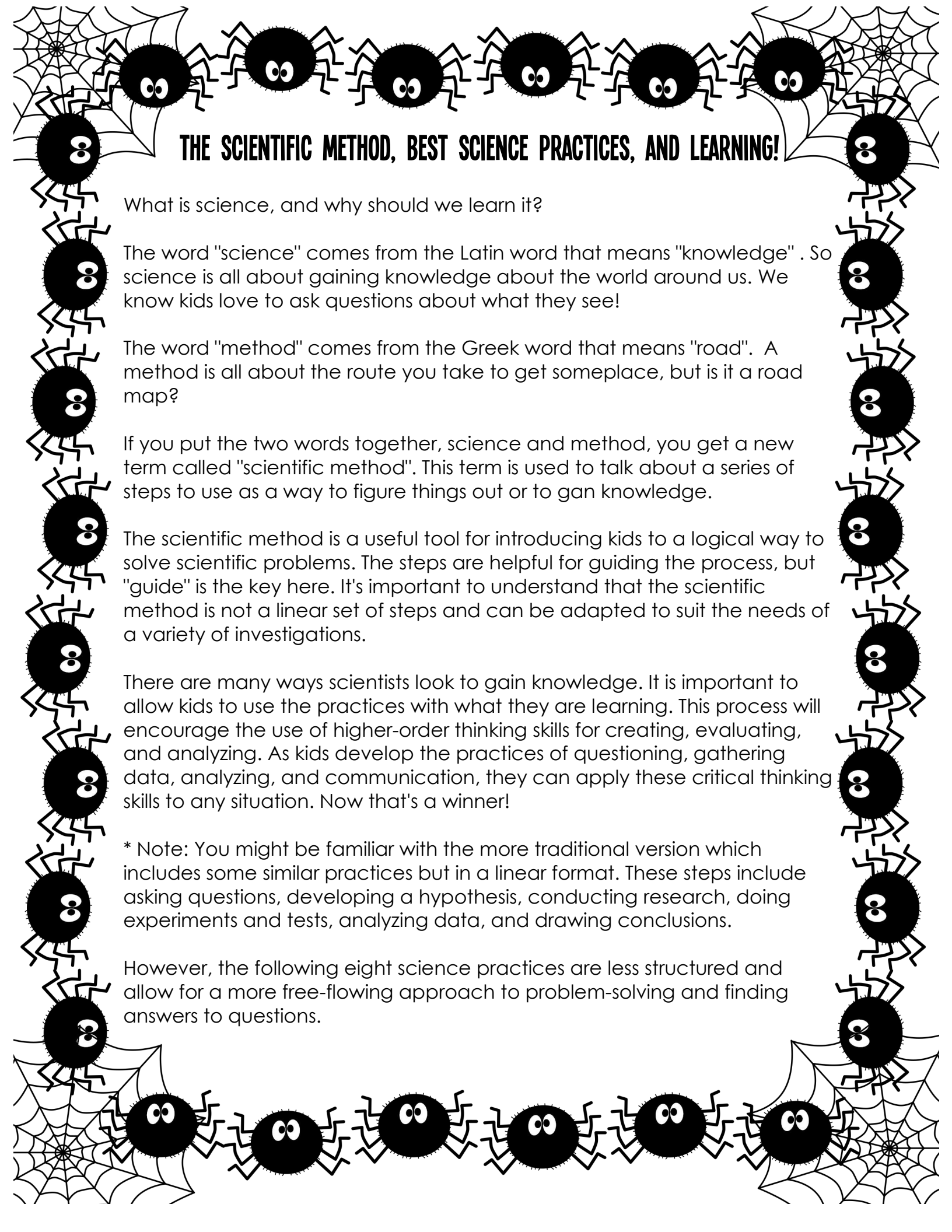
BEST SCIENCE AND ENGINEERING PRACTICES

A decorative border of colorful eyes surrounds the text. The eyes are arranged in a circular pattern, with some at the top, bottom, and sides. Each eye has a different colored iris (green, blue, yellow, pink, orange) and a black pupil. Some eyes have red lines radiating from the pupil, while others have white lines. The eyes are all looking towards the center of the page.

BEST SCIENCE AND ENGINEERING PRACTICES

It is important to note that the scientific method is not a linear set of steps, and you can adapt it to fit your investigation.

1. I can ask questions.
2. I can develop and use models.
3. I can plan and carry out investigations.
4. I can analyze and interpret data.
5. I can use math and computational thinking.
6. I can construct explanations.
7. I can engage in arguments from evidence.
8. I can obtain, evaluate, and communicate information.



THE SCIENTIFIC METHOD, BEST SCIENCE PRACTICES, AND LEARNING!

What is science, and why should we learn it?

The word "science" comes from the Latin word that means "knowledge". So science is all about gaining knowledge about the world around us. We know kids love to ask questions about what they see!

The word "method" comes from the Greek word that means "road". A method is all about the route you take to get someplace, but is it a road map?

If you put the two words together, science and method, you get a new term called "scientific method". This term is used to talk about a series of steps to use as a way to figure things out or to gain knowledge.

The scientific method is a useful tool for introducing kids to a logical way to solve scientific problems. The steps are helpful for guiding the process, but "guide" is the key here. It's important to understand that the scientific method is not a linear set of steps and can be adapted to suit the needs of a variety of investigations.

There are many ways scientists look to gain knowledge. It is important to allow kids to use the practices with what they are learning. This process will encourage the use of higher-order thinking skills for creating, evaluating, and analyzing. As kids develop the practices of questioning, gathering data, analyzing, and communication, they can apply these critical thinking skills to any situation. Now that's a winner!

* Note: You might be familiar with the more traditional version which includes some similar practices but in a linear format. These steps include asking questions, developing a hypothesis, conducting research, doing experiments and tests, analyzing data, and drawing conclusions.

However, the following eight science practices are less structured and allow for a more free-flowing approach to problem-solving and finding answers to questions.

1. I CAN ASK QUESTIONS



2. I CAN DEVELOP AND USE MODELS



3. I CAN PLAN AND CARRY OUT INVESTIGATIONS



4. I CAN ANALYZE AND INTERPRET DATA



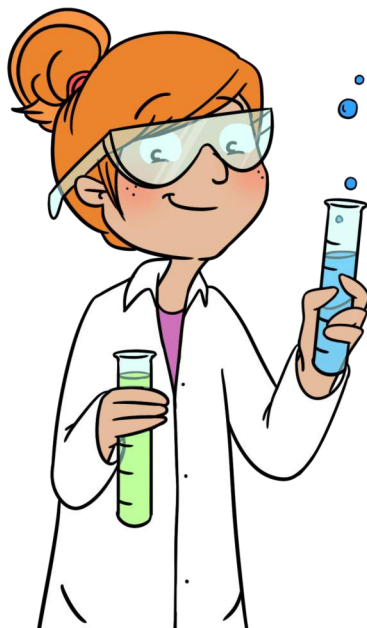
5. I CAN USE MATH AND COMPUTATIONAL THINKING



6. I CAN CONSTRUCT EXPLANATIONS



7. I CAN ENGAGE IN ARGUMENTS FROM EVIDENCE



8. I CAN OBTAIN, EVALUATE, & COMMUNICATE INFORMATION



1. I can **ask questions.**

2. I can **develop and use models.**

3. I can **plan and carry out investigations.**

4. I can **analyze and interpret data.**

5. I can use **math and computational thinking.**

6. I can **construct explanations.**

7. I can **engage in arguments from evidence.**

8. I can **obtain, evaluate, and communicate information.**

1. I can
**ask
questions.**

2. I can
**develop
and use
models.**

3. I can
**plan and
carry out
investigati
ons.**

4. I can
**analyze
and
interpret
data.**

5. I can use
math and
computational
thinking.

6. I can
construct
explanations.

7. I can
engage in
arguments
from
evidence.

8. I can
obtain,
evaluate,
and
communicate
information.

Try these Halloween themed, problem-based challenges, and get the kids thinking about the engineering design process.

- Halloween STEM Challenges
- STEM Journal Pages
- Engineering Design Process



CANDY BUCKET CHALLENGE

Trick or treating night is here and you are dressed and ready to go. Everyone is calling for you to get going, but you can't find your candy bucket anywhere. All you can find quickly is newspaper and tape. Can you construct a bucket to carry your candy safely home?

Supplies:
newspaper and tape

My idea:

BAT BOX CHALLENGE

One evening at dusk, you notice bats flying around your house. Next, you realize your house doesn't have a bat box on it! Now you need to design and build the best bat box ever. Make sure to do your research on bats and the use of bat boxes first! What makes for a good bat house and where should you put one?

Supplies:
Wood planks, hammer, nails, screws, screwdriver, saw, stapler, paint, brushes (You may need adult supervision).

WITCH OR WIZARD HAT CHALLENGE

Your costume is complete but you can't find your hat anywhere! Trick or treating starts in just a little bit, and you can't go to the store and buy a new one in time. Can you design and construct a new hat with materials you find around the house? Make sure to draw a unique design on it that represents you!

Supplies:
Fabric, needle and thread, scissors, skewers, toothpicks, straws, cotton swabs, Wash tape, duct tape, glue, glitter glue, lollipop sticks, magnets

My idea:

Engineering Design Process

ASK

What is the problem?

Imagine

What are some

Plan

Draw a diagram and make a list of needed

Create

Follow your plan and create something. Test it out!

Improve

What works? What doesn't? What could

Spooky 5 Senses En

Acrylic paint	Hammer
Aluminum foil	Hinges
Baking soda	Jell-O
Baggies	Leave
Bamboo sticks	LEGO
Cardboard	Lollipop
Clothes pins	Ma
Coffee filters	Mr.
Cookies	N
Cookie cutters	News
Cotton balls	Nuts & bolts
Craft paper	Paint
Craft sticks	Paper
Dryer hose	Paper cups
Duct tape	Paper clips
Faux plants	Peeps
Feathers	Pencil
Felt	Pipe cleaners
Flat marbles	Plastic bugs
Food coloring	Plastic bowls & cups
Funnel	Plastic eyes
Gears	Plastic spoons
Glitter glue	Plastic wrap
Glow stars	Pom-poms
Glue	Pudding
Golf tees	Raffia
Gummy worms	Ribbon

Halloween

ACTIVITY & ENGINEER'S NOTEBOOK

? [Diagram] [Lightbulb] [Gears] [Puzzle] [Bar Chart]

CHALLENGE

ever, and you're in charge of a up with five spooky but not u need one interesting item t, sound, taste, touch, and th of the senses.

ns, plastic bones/ ; lollipop sticks, toothpicks,

Halloween

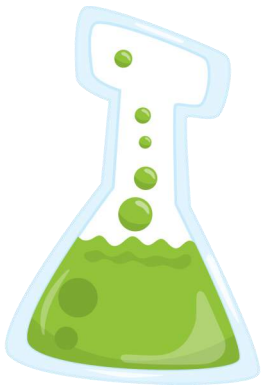


ACTIVITY

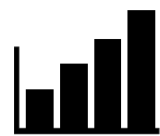
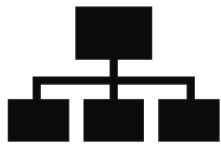
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NOTEBOOK



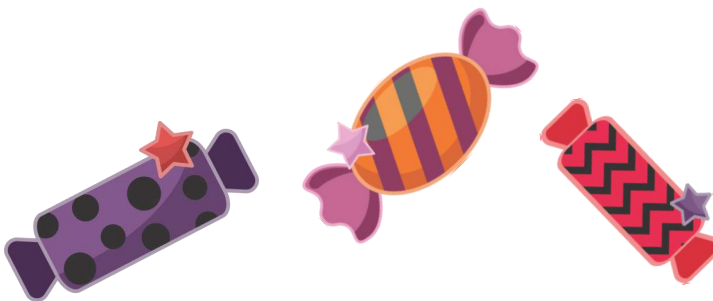


CANDY BUCKET CHALLENGE

Trick or treating night is here and you are dressed and ready to go. Everyone is calling for you to get going, but you can't find your candy bucket anywhere. All you can find quickly is newspaper and tape. Can you construct a bucket to carry your candy safely home?

Supplies:

newspaper and tape



My ideas:



CANDY BUCKET ENGINEERING SUPPLY LIST

Acrylic paint
Aluminum foil
Baking soda
Baggies
Bamboo sticks
Cardboard
Clothes pins
Coffee filters
Cookies
Cookie cutters
Cotton balls
Cotton swabs
Craft paper
Craft sticks
Dryer hose
Duct tape
Faux plants
Feathers
Felt
Flat marbles
Food coloring
Funnel
Gears
Glitter glue
Glow stars
Glue
Golf tees
Gummy worms



Hammer
Hinges
Jell-O
Leaves
LEGO® bricks
Lollipop sticks
Magnets
Marbles
Nails
Needle and thread
Newspaper
Nuts & bolts
Paint
Paper
Paper cups
Paper clips
Peeps
Pencil
Pipe cleaners
Plastic bugs
Plastic bowls & cups
Plastic eyes
Plastic spoons
Plastic wrap
Pom-poms
Pudding
Raffia
Ribbon



Rubber Bands
Sand
Scissors
Screwdriver
Skeletons
Skewers
Soil
Sponges
Springs
Stapler
Straws
String
Styrofoam balls
Tape
Tape measure
Tea lights
Tin can
Toilet paper rolls
Toothpicks
Twine
Twist ties
Washi Tape
Water
Whipped cream
Wire
Wooden planks
Yarn
Zip ties



Engineering Design Process



Engineering Design Process



ASK

What is the problem?

What do I need to know?

How can I solve the problem?



Imagine

What information will I need?

What are some solutions?

How can I solve the problem?



Plan

What things do I need to use?

Draw a diagram and make a list of needed materials.



Create

Follow your plan and create something.

Test it out!



Improve

What changes can I make to make it better?

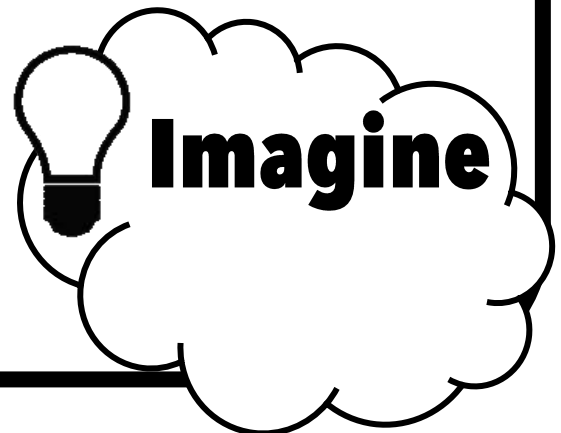
My STEM Challenge:



ASK

What's the problem?

BRAINSTORM AND RECORD possible solutions, as many as you can.



Imagine



Plan

Draw a diagram and make a list of needed materials.

[illegible]

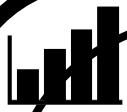
My STEM Challenge:



Create

Look at the materials provided for use for creating your models.

My STEM Challenge:



Improve

Create a new drawing incorporating your ideas as well as the feedback you received on your prototype. Create an improved version of your original model.

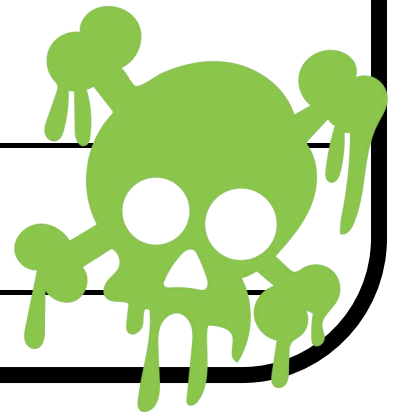
SPOOKY 5 SENSES CHALLENGE

Your family is throwing the best Halloween party ever, and you're in charge of the spooky five senses table. Your task is to come up with five spooky but not too scary things that go with your five senses. You need one interesting item or thing for each of the five senses including sight, sound, taste, touch, and smell. What will you plan? Draw your ideas for each of the senses.

Supplies:

Jell-O, pudding, whipped cream, cups, bowls, spoons, plastic bones/skeletons, gummy worms, plastic bugs, paper, sand, lollipop sticks, toothpicks, fabric, yarn, soil, crushed cookies

My ideas:



SPOOKY 5 SENSES ENGINEERING SUPPLY LIST

Acrylic paint
Aluminum foil
Baking soda
Baggies
Bamboo sticks
Cardboard
Clothes pins
Coffee filters
Cookies
Cookie cutters
Cotton balls
Cotton swabs
Craft paper
Craft sticks
Dryer hose
Duct tape
Faux plants
Feathers
Felt
Flat marbles
Food coloring
Funnel
Gears
Glitter glue
Glow stars
Glue
Golf tees
Gummy worms



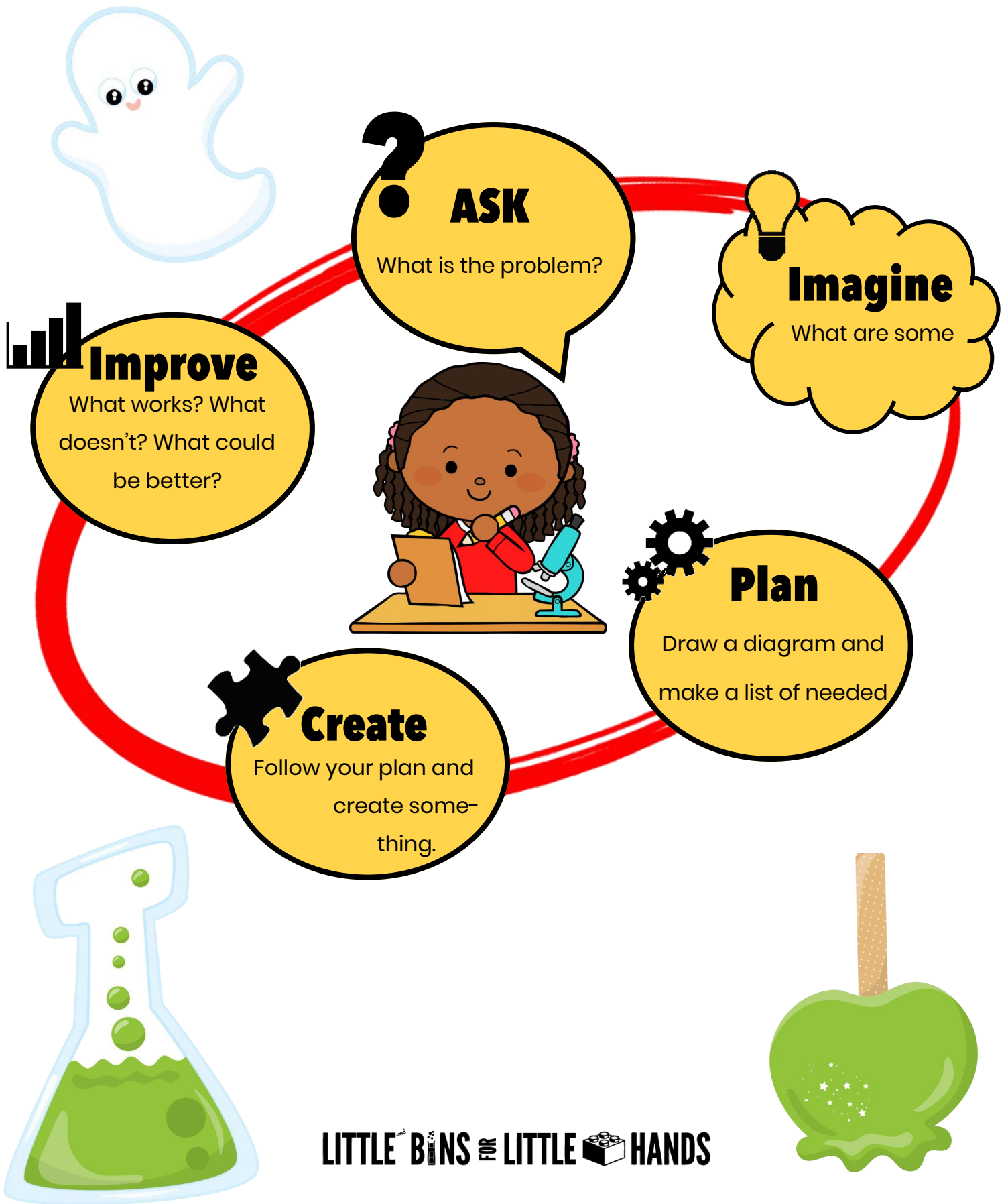
Hammer
Hinges
Jell-O
Leaves
LEGO® bricks
Lollipop sticks
Magnets
Marbles
Nails
Needle and thread
Newspaper
Nuts & bolts
Paint
Paper
Paper cups
Paper clips
Peeps
Pencil
Pipe cleaners
Plastic bugs
Plastic bowls & cups
Plastic eyes
Plastic spoons
Plastic wrap
Pom-poms
Pudding
Raffia
Ribbon



Rubber Bands
Sand
Scissors
Screwdriver
Skeletons
Skewers
Soil
Sponges
Springs
Stapler
Straws
String
Styrofoam balls
Tape
Tape measure
Tea lights
Tin can
Toilet paper rolls
Toothpicks
Twine
Twist ties
Washi Tape
Water
Whipped cream
Wire
Wooden planks
Yarn
Zip ties



Engineering Design Process



Engineering Design Process



ASK

What is the problem?

What do I need to know?

How can I solve the problem?



Imagine

What information will I need?

What are some solutions?

How can I solve the problem?



Plan

What things do I need to use?

Draw a diagram and make a list of needed materials.



Create

Follow your plan and create something.

Test it out!



Improve

What changes can I make to make it better?

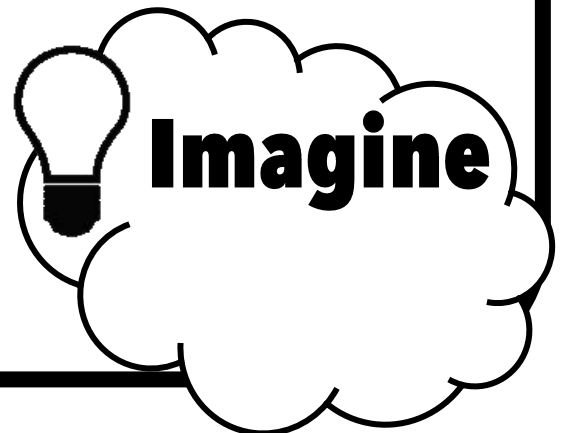
My STEM Challenge:



ASK

What's the problem?

BRAINSTORM AND RECORD possible solutions, as many as you can.



Imagine



Plan

Draw a diagram and make a list of needed materials.

[illegible]

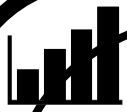
My STEM Challenge:



Create

Look at the materials provided for use for creating your models.

My STEM Challenge:



Improve

Create a new drawing incorporating your ideas as well as the feedback you received on your prototype. Create an improved version of your original model.

BAT BOX CHALLENGE



One evening at dusk, you notice bats flying around your house. Next, you realize your house doesn't have a bat box on it? Now you need to design and build the best bat box ever. Make sure to do your research on bats and the use of bat boxes first! What makes for a good bat house and where should you put one?

Supplies:

Wood planks, hammer, nails, screws screwdriver, saw, stapler, paint, brushes (You may need adult supervision).

My ideas:

BAT BOX ENGINEERING SUPPLY

Acrylic paint
Aluminum foil
Baking soda
Baggies
Bamboo sticks
Cardboard
Clothes pins
Coffee filters
Cookies
Cookie cutters
Cotton balls
Cotton swabs
Craft paper
Craft sticks
Dryer hose
Duct tape
Faux plants
Feathers
Felt
Flat marbles
Food coloring
Funnel
Gears
Glitter glue
Glow stars
Glue
Golf tees
Gummy worms



Hammer
Hinges
Jell-O
Leaves
LEGO® bricks
Lollipop sticks
Magnets
Marbles
Nails
Needle and thread
Newspaper
Nuts & bolts
Paint
Paper
Paper cups
Paper clips
Peeps
Pencil
Pipe cleaners
Plastic bugs
Plastic bowls & cups
Plastic eyes
Plastic spoons
Plastic wrap
Pom-poms
Pudding
Raffia
Ribbon



Rubber Bands
Sand
Scissors
Screwdriver
Skeletons
Skewers
Soil
Sponges
Springs
Stapler
Straws
String
Styrofoam balls
Tape
Tape measure
Tea lights
Tin can
Toilet paper rolls
Toothpicks
Twine
Twist ties
Washi Tape
Water
Whipped cream
Wire
Wooden planks
Yarn
Zip ties



Engineering Design Process



Engineering Design Process



ASK

What is the problem?

What do I need to know?

How can I solve the problem?



Imagine

What information will I need?

What are some solutions?

How can I solve the problem?



Plan

What things do I need to use?

Draw a diagram and make a list of needed materials.



Create

Follow your plan and create something.

Test it out!



Improve

What changes can I make to make it better?

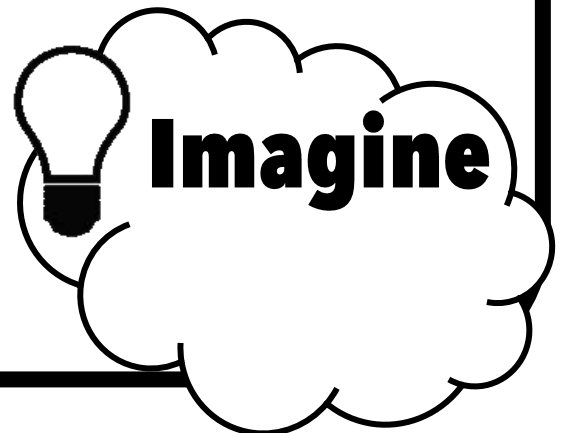
My STEM Challenge:



ASK

What's the problem?

BRAINSTORM AND RECORD possible solutions, as many as you can.



Imagine



Plan

Draw a diagram and make a list of needed materials.



Plan

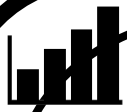
My STEM Challenge:



Create

Look at the materials provided for use for creating your models.

My STEM Challenge:



Improve

Create a new drawing incorporating your ideas as well as the feedback you received on your prototype. Create an improved version of your original model.

HALLOWEEN QUICK STEM CHALLENGES

Add these Halloween STEM challenge cards to a simple engineering kit filled with easy to find supplies. Encourage the kids to get creative! Fun individual or group activity that's perfect for maker spaces or tinker tables.

What's Included:

Handy Supply List

Halloween Theme STEM Cards



Build a Bone Tower

Challenge: Build a bone tower out of cotton swabs! The only material you can use is cotton swabs.

Possible Supplies: cotton swabs

Build a Candy Corn Tower

Challenge: Build a candy corn tower out of only candy corn! How tall of a tower can you build in 15 minutes?

Possible Supplies: candy corn

Build a Spider Web

Challenge: Design a spider web out of materials you have available. Look up types of spider webs to help plan your design.

Possible Supplies: string, yarn, glue, Washi tape, thread, felt, fabric, cotton

Frankenstein's Monster

Challenge: Frankenstein's monster was said to be 8 feet tall. Can you build a tower as tall as Frankenstein? Make sure to make a face for the top!

Possible Supplies: toothpicks, craft sticks, skewers, fabric, string, LEGO bricks, wooden planks, twist ties, zip ties, twine, paint, paper, markers, screws, screwdriver, foil

Build a Pumpkin Candy Tower

Challenge: Build pumpkin candy towers or structures. Who can build the tallest in 15 minutes! Pumpkin shaped gumdrops work the best!

Possible Supplies: pumpkin gumdrops (or other type of pumpkin candy), toothpicks

Launching Eyeballs

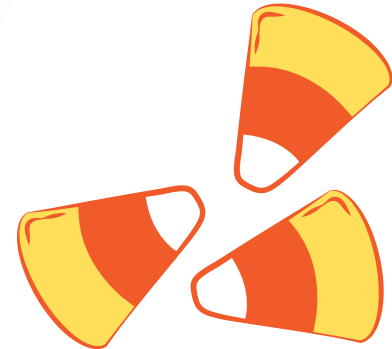
Challenge: Launching eyeballs! Design and build a catapult from materials list. Can you launch a plastic eyeball, spider, or bat across the room?

Supplies: craft sticks, toothpicks, rubber bands, spoons, paper towel tubes, pencils, building bricks, wooden planks

Build a Skeleton

Challenge: Build a skeleton! Design your own skeleton out of cotton swabs or straw pieces. What else can you add? Can you make it stand up?

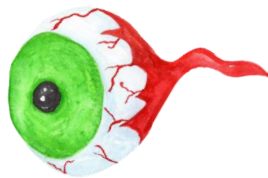
Possible Supplies: cotton swabs, cotton, straws, pipe cleaners, twist ties, toothpicks



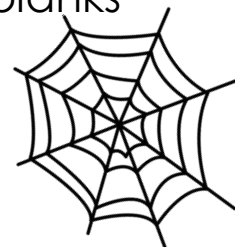
Halloween Engineering Activity Supply List

Acrylic paint
Aluminum foil
Baking soda
Baggies
Bamboo sticks
Candy corn
Cardboard
Coffee filters
Coins
Cookie cutters
Cornstarch
Cotton balls
Cotton swabs
Craft paper
Craft sticks
Dryer hose
Duct tape
Easter grass
Faux plants
Feathers
Felt
Flat marbles
Food coloring
Funnel
Gears
Glitter (gold)
Glitter glue
Glow stars
Glue

Golf tees
Hammer
Hinges
Leaves
LEGO® bricks
Lollipop sticks
Magnets
Marbles
Markers
Measuring cups
Nails
Paint
Paper
Paper towel tubes
Paper cups
Paper clips
Peeps
Pencil
Pipe cleaners
Plastic containers
Plastic bats
Plastic eyeballs
Plastic pipes
Plastic spiders
Plastic spoons
Pumpkin gumdrops
Ribbon
Rubber Bands
Scissors



Screws
Screwdriver
Shredded paper
Skeleton (plastic)
Skewers
Soil
Sponges
Springs
Stapler
Straws
String
Styrofoam balls
Sugar cubes
Tape
Tape measure
Tea lights
Thread
Tin can
Toilet paper rolls
Toothpicks
Twine
Twist ties
Washi Tape
Water
Whirly gig
Wire
Wooden planks
Yarn
Zip ties



Frankenstein's Monster

Challenge: Frankenstein's monster was said to be 8 feet tall. Can you build a tower as tall as Frankenstein? Make sure to make a face for the top!

Possible Supplies: toothpicks, craft sticks, skewers, fabric, string, LEGO bricks, wooden planks, twist ties, zip ties, twine, paint, paper, markers, screws, screwdriver, foil



Build a Pumpkin Candy Tower

Challenge: Build pumpkin candy towers or structures. Who can build the tallest in 15 minutes! Pumpkin shaped gumdrops work the best!

Possible Supplies: pumpkin gumdrops (or other type of pumpkin candy), toothpicks



Launching Eyeballs

Challenge: Launching eyeballs! Design and build a catapult from materials list. Can you launch a plastic eyeball, spider, or bat across the room?

Supplies: craft sticks, toothpicks, rubber bands, spoons, paper towel tubes, pencils, building bricks, wooden planks



Build a Skeleton

Challenge: Build a skeleton! Design your own skeleton out of cotton swabs or straw pieces. What else can you add? Can you make it stand up?

Possible Supplies: cotton swabs, cotton, straws, pipe cleaners, twist ties, toothpicks



Build a Bone Tower

Challenge: Build a bone tower out of cotton swabs! The only material you can use is cotton swabs.

Possible Supplies: cotton swabs



Build a Candy Corn Tower

Challenge: Build a candy corn tower out of only candy corn! How tall of a tower can you build in 15 minutes?

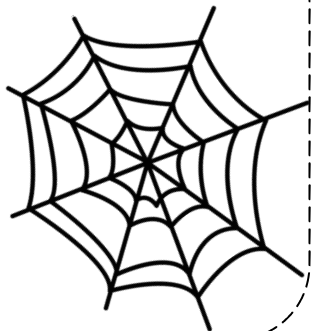
Possible Supplies: candy corn



Build a Spider Web

Challenge: Design a spider web out of materials you have available. Lookup types of spider webs to help plan your design.

Possible Supplies: string, yarn, glue, Washi tape, thread, felt, fabric, cotton



Build a Bridge

Challenge: Design and build a bridge for all the kids to use to get to the haunted house for Halloween party!

Possible Supplies: building bricks, wooden planks, skewers, toothpicks



HALLOWEEN SCIENCE ACTIVITIES

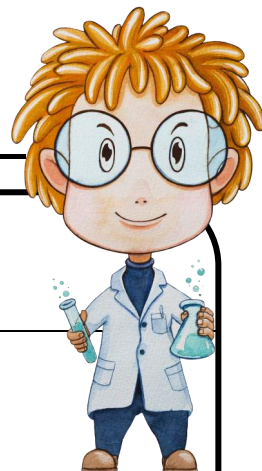
Explore these fun Halloween theme science activities right through the month of October! Use the enclosed journal pages, and best science practices pack to round out your spooky science this season.

What's Included:

- **Spidery Oobleck:** Is it a liquid or a solid?
- **Fizzing Brew:** What happens when an acid and a base mix?
- **Creepy Lava Lamps:** Do oil and water mix?
- **Disappearing Candy:** Will candy dissolve in liquid?
- **Frankenstein's Frozen Brain:** How does ice melt?
- **Inflating Ghosts:** Blow up a balloon with a chemical reaction
- **Wizard Potions:** How does yeast work?



MY EXPERIMENT:



Materials I Used:

What I think will happen:

MY EXPERIMENT:

What I did:

What I saw:

MY EXPERIMENT:

Draw it:

MY EXPERIMENT:

What happened:

MY EXPERIMENT:

What happened:

Spidery Oobleck: Is it a liquid or a solid?

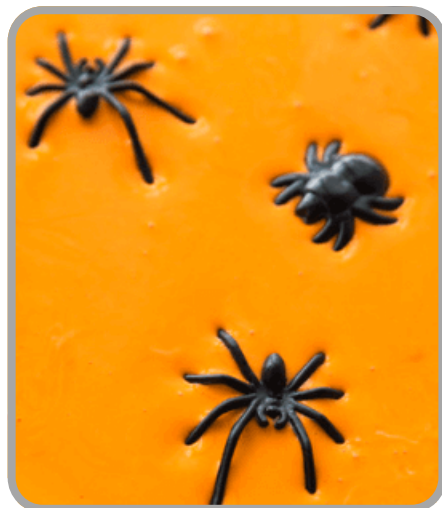
YOU WILL NEED:

- 2 cup cornstarch
- 1 cup water
- Food Coloring (optional)
- Halloween play accessories (optional)
- Baking Dish
- Spoon

DIRECTIONS:

1. In your bowl or baking dish, add the cornstarch. You can start mixing the oobleck in a bowl and then transfer it to a baking dish if you prefer.
2. If you want to give your oobleck a color, add food coloring to your water first. For vibrant color use a good amount of food coloring. Use red and yellow to make a good orange color for the Halloween theme.
3. You can start by mixing up your oobleck with a spoon, but to get a good mix you'll need to use your hands. You may either need to add a bit more cornstarch or a bit more water to get the right consistency.
4. Once you get the right consistency, you can add your Halloween accessories.

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Fizzy Witch's Cauldron: What happens when an acid & base mix?

YOU WILL NEED:

- A cauldron (or bowl)
- Baking soda
- White vinegar
- Food coloring
- Dish soap
- Eyeballs

DIRECTIONS:

1. Add a heaping amount of baking soda to your bowl or cauldron. This experiment can be messy, so be sure to place your bowl on a tray, in the sink, or outside.
2. Add a squirt of dish soap and food coloring to the baking soda.
- Or, you can also mix food coloring into the vinegar.
3. Time to add your spooky Halloween eyeballs or other accessories into the cauldron.
4. Now pour in white vinegar onto the baking soda and the bubbling brew.



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What's Happening?

THE SCIENCE OF OOBLECK:

Oobleck is made with a combination of cornstarch and water. Generally, the oobleck recipe is a ratio of 2:1, so two cups of cornstarch and one cup of water gives you good oobleck consistency.

Oobleck is a non-Newtonian fluid which means it is neither a liquid nor a solid. It is an example of a mixture. A mixture is a substance that is made up of two or more substances, that when combined forms a new substance.

THINK ABOUT IT:

Can the oobleck substance ever be separated? If so, how?

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What's Happening?

THE SCIENCE OF THE WITCH'S BREW:

This fizzy Halloween activity is all about a cool chemical reaction. The scientific name of baking soda is sodium bicarbonate, it is a base. The vinegar is an acid.

When you combine the two a chemical reaction occurs. The reaction produces a new product a gas called carbon dioxide. This is a chemical reaction that you can see, hear, feel, and smell. The fizzing action is the reactionary change that produces carbon dioxide. It occurs until either the baking soda, or vinegar, or both are used up.

THINK ABOUT IT:

Besides vinegar, what other types of acid could you use to produce similar results?

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Spidery Oobleck: Is it a liquid or a solid?

YOU WILL NEED:

- 2 cup cornstarch
- 1 cup water
- Food Coloring (optional)
- Halloween play accessories (optional)
- Baking Dish
- Spoon

DIRECTIONS:

1. Fill a jar 3/4 of the way with water.
2. Fill up the rest of the jar with cooking oil. Observe what happens to the oil and water in your jar as you add them.
3. Observe what happens when you add drops of food coloring to the oil and water mixture.
4. Now add an Alka-Seltzer tablet. Observe what happens. You can repeat as desired with another tablet.

Note: Set up this experiment on a plastic tray or dollar store cookie sheet to minimize the mess.



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Disappearing Candy: Will it dissolve in liquid?

YOU WILL NEED:

- Candy Corn
- Peeps (ghosts and pumpkins)
- Cold water, hot water, vinegar, oil, seltzer
- Toothpicks
- Clear cups
- Timer

DIRECTIONS:

1. Measure and fill clear cups with each of the liquids you are using.
 2. Place your candy in each of the cups and start the timer.
- Observe what happens to the candy in each liquid.



Note: Try this experiment in two rounds. For the first round try using peep candy {both pumpkins and ghosts}. For the second round try using our candy corn. Observe and document the differences.

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What's Happening?

THE SCIENCE OF OIL & WATER:

Quite a few things going on here with both physics and chemistry! Liquid is one of three states of matter. It flows, it pours, and it takes the shape of the container you put it in.

However, different liquids have different viscosity or thicknesses. Does the oil pour differently than the water? What do you notice about the food coloring drops you added to the oil/water? Think about the viscosity of other liquids you use.

THINK ABOUT IT:

Why don't all liquids simply mix together? Did you notice the oil and water separated? Could you remove the oil from the water?

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What's Happening?

THE SCIENCE OF DISSOLVING:

Candy is a soluble substance. That means it can be dissolved in some kind of solvent. Many substances are soluble including solids, liquids, and gases. The solvent can also be a solid, a liquid or a gas.

In this experiment, you are using a liquid solvent to dissolve a solid substance.

THINK ABOUT IT:

Besides candy, what other substances can you think of that may be soluble in the liquids used in this experiment?

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Frankenstein's Frozen Brain: How does ice melt?

YOU WILL NEED:

- Brain mold
- Water
- Food coloring
- Bowl {optional for securing the brain}
- Basters, eyedroppers, or pipettes
- Tray {to catch water}
- A bowl of warm water {for melting brains}
- Halloween accessories

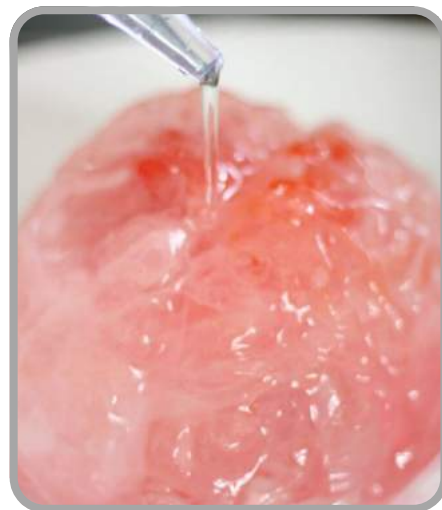
DIRECTIONS:

1. Fill a the mold with water and a few drops of food coloring. Let your brain freeze completely solid.

TIP: You can add creepy things to your brain like plastic eyeballs and spiders! The trick to doing this is to freeze the liquid in layers and add your fun things as you go along.

2. Once frozen solid, remove from freezer and Slide out the brain, and place it on a tray or large serving platter.

3. Using a baster, pipette, or eyedropper, filled with warm water and explore how ice melts.



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Inflating Ghost: How to blow up a balloon with a chemical reaction!

YOU WILL NEED:

- Baking soda
- Vinegar
- Empty water bottles
- Balloons, draw spooky ghost eyes on the outside
- Measuring spoons
- Funnel {optional but helpful}

DIRECTIONS:

1. Blow up the balloon a bit to stretch it out some. Release the air.

2. Use the funnel and teaspoon to add baking soda to the balloon. Start with 2 teaspoons but then repeat the experiment with other balloons and add 1 teaspoon more to each.

3. Fill the water bottle with vinegar about halfway.

4. Stretch the end of the balloon over the mouth of the bottle getting a good seal.

5. Lift up the balloon to dump the baking soda into the container of vinegar.

6. Watch what happens to the balloon.

5. To get the most gas out the bottle swirl the container around a bit.



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What's Happening?

THE SCIENCE OF MELTING ICE:

Water can be found in three states of matter, liquid, solid and gas. Here you see water being changed into a solid in the freezing process. But, this change is reversible. Temperature and pressure can affect the solid causing a melting reaction to occur. Once the ice melts you have returned the water once again to a liquid state.

THINK ABOUT IT:

In this experiment, you are using warm water. What would happen if you used cold water? What would happen if you use hot water? Can you theorize the results and test your hypothesis?

Caution: Don't use water that is too hot, it could burn. Be sure your experiments are supervised by an adult.

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What's Happening?

THE SCIENCE OF THE INFLATING BALLOON:

When the baking soda, a base, meets with the vinegar, an acid, a chemical reaction occurs. The reaction produces a new product a gas called carbon dioxide CO_2 .

The gas that is produced rises and as it rises it fills the balloon as it escapes the bottle. This gives the balloon lift. Because the gas has nowhere to go it is pushing against the balloon causing it to inflate.

THINK ABOUT IT:

What would happen if you put the vinegar inside the balloon and the baking soda inside the bottle and repeated the experiment?

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Wizard Potions: How does yeast work?

YOU WILL NEED:

- Hydrogen peroxide
- Warm water
- Yeast packets {2 packets for 3 beakers}
- Flasks or plastic bottles, or beakers (3 different sizes)
- Teaspoon and tablespoon
- Food coloring
- Dish soap
- Tray or container {to contain mess}
- Small cup

DIRECTIONS:

1. Pour the same amount of hydrogen peroxide into each container unless you are just using one container. A 1/2 cup is suggested.
2. Squirt dish soap into flask or bottle.
3. Add food coloring.
4. **Mix the yeast mixture in the cup.** Mix 1 teaspoon of yeast with 2 tablespoons of warm water.
5. Pour the yeast mixture into each of the containers and check out what happens.



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Spooky Skull: Do all liquids weigh the same?

YOU WILL NEED:

- Tall Cup or jar (a clear plastic skull works well)
- Vegetable oil
- Water
- Rubbing alcohol
- Corn syrup
- Food coloring
- Alka-Seltzer Tablets

DIRECTIONS:

As you complete the steps document what happens after each addition.

1. Start by pouring your vegetable oil into the cup. Is the oil heavier than the water?
2. Use an eyedropper to add colored water to the oil. What happened?
3. Next add corn syrup to the cup. Is the corn syrup heavier than the rubbing alcohol?
4. Mix food coloring into the rubbing alcohol. Then use the eyedropper to add the rubbing alcohol to the cup. What happened?
5. Finally, add the Alka-Seltzer tablet. What happens?



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What's Happening?

THE SCIENCE OF THE WIZARD'S POTION:

A chemical reaction is taking place. Hydrogen Peroxide, H_2O_2 , is a chemical compound. It is made of 2 parts hydrogen and 2 parts oxygen. When you add the dish soap you have a solution. The yeast works as a catalyst to release the oxygen molecules from the hydrogen peroxide solution. When the hydrogen peroxide, H_2O_2 , breaks down into water H_2O you are left with oxygen, O_2 . The soap mixes with the water and the oxygen and begins to foam.

THINK ABOUT IT:

How does the bottle feel warm to the touch? Why do you think it feels this way?

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What's Happening?

THE SCIENCE OF LIQUID DENSITY:

Do a cup of water and a cup of oil weigh the same amount? Different liquids which measure the same can weigh different weights. That is because each type of liquid is made up of different combinations of atoms and molecules. Some of these molecules are packed more tightly together than others! The composition of each liquid determines the density of each liquid.

THINK ABOUT IT:

Can you change the density of water? What happens if you add salt to the water? How much salt would it take to change the density?

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BONUS: HALLOWEEN FUN PACK

Play a game, make some matches, ask a question or two, play bingo, go on a scavenger hunt, or try an I-Spy! Print and play.



HALLOWEEN FUN TRICK-OR-TREAT

Roll-a-Cube Board Game

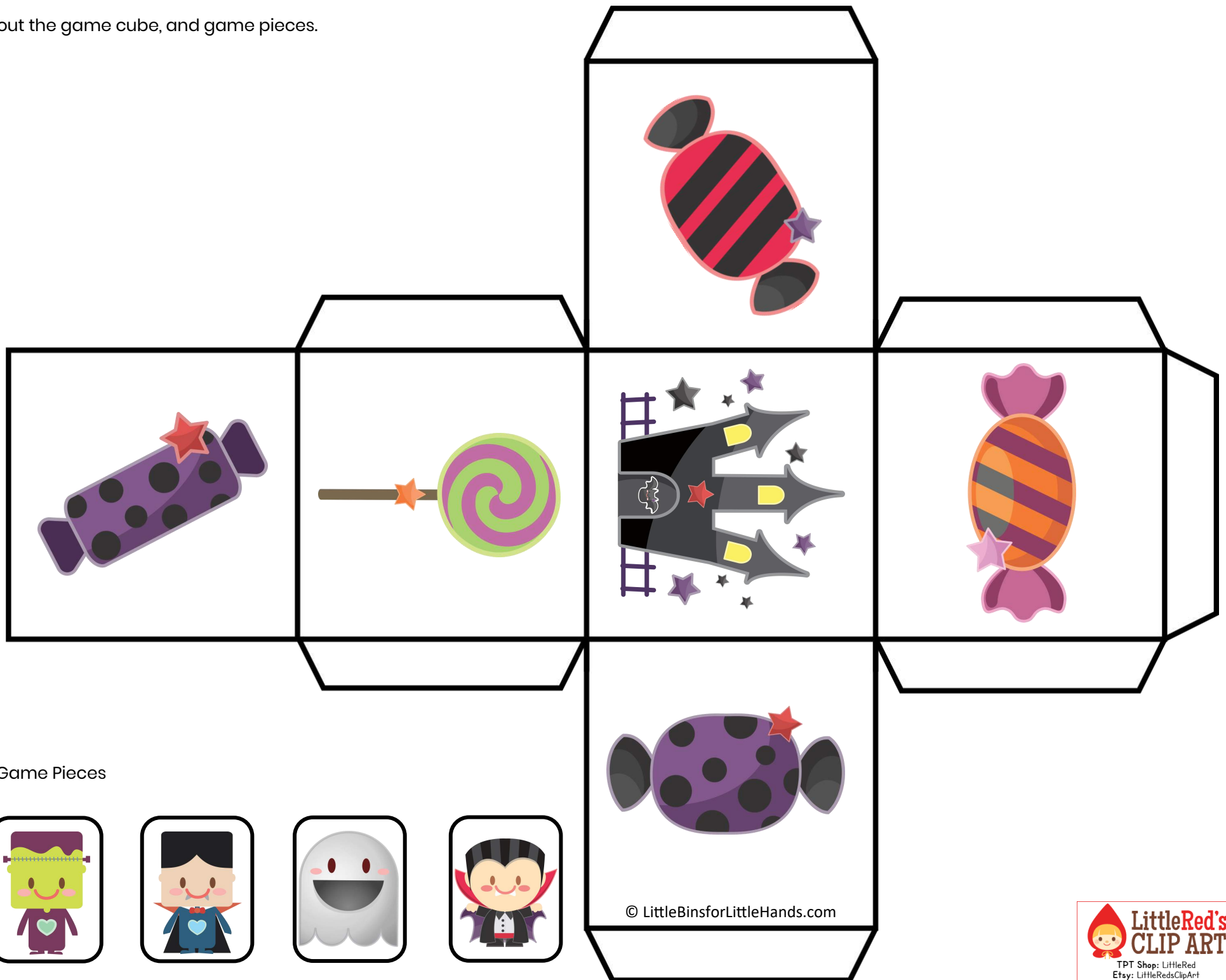




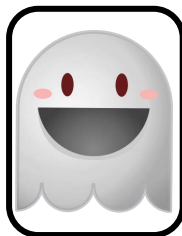
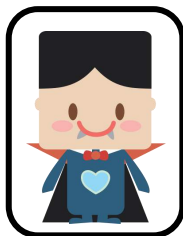
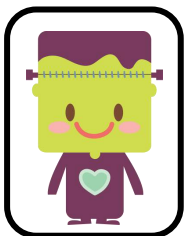
Trick or Treat BOARD GAME

It's Halloween!
Go trick or treating
around the game
board collecting
your treats. First one
to the candy
bucket wins.

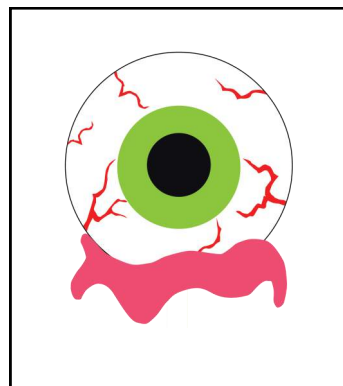
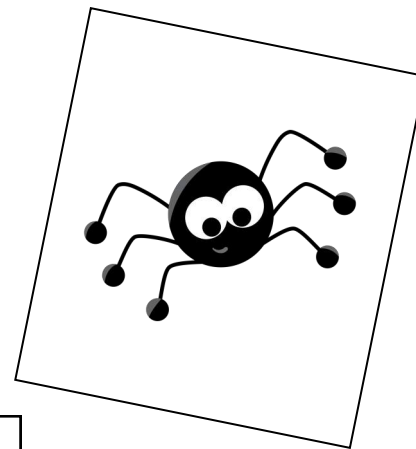
Cut out the game cube, and game pieces.



Game Pieces



FALL FUN BINGO GAME



HALLOWEEN FUN BINGO



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HALLOWEEN FUN BINGO



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HALLOWEEN FUN BINGO

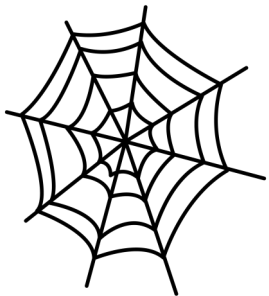
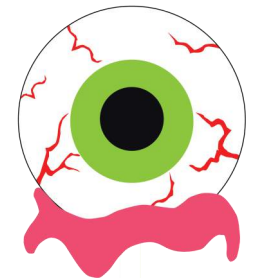
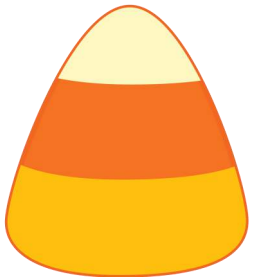
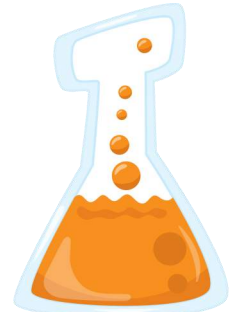
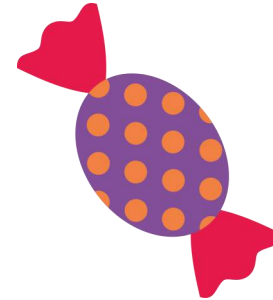
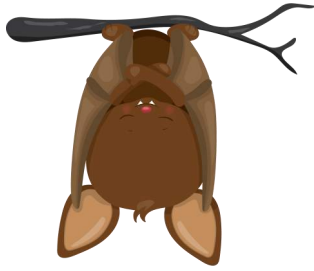


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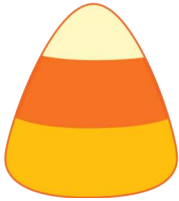
HALLOWEEN FUN BINGO



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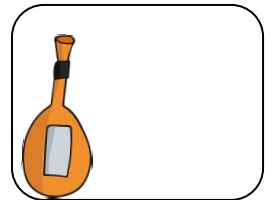
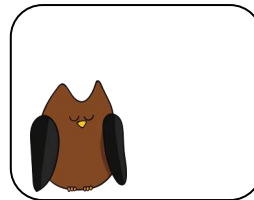
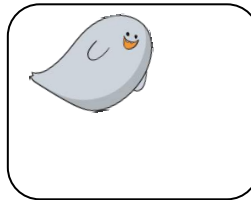
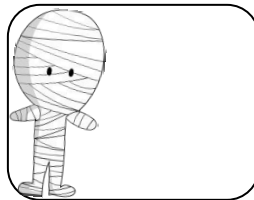
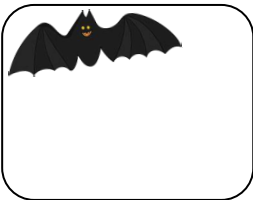
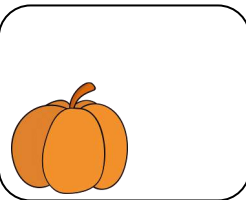
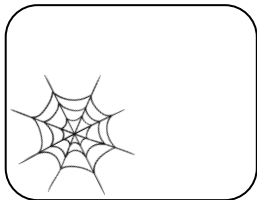
HALLOWEEN SCAVENGER HUNT



Halloween I Spy



Halloween I Spy



HALLOWEEN FUN MATCH GAME

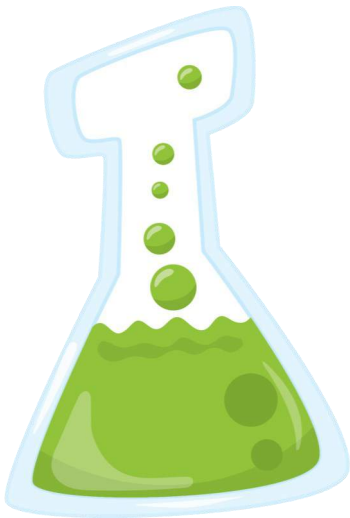




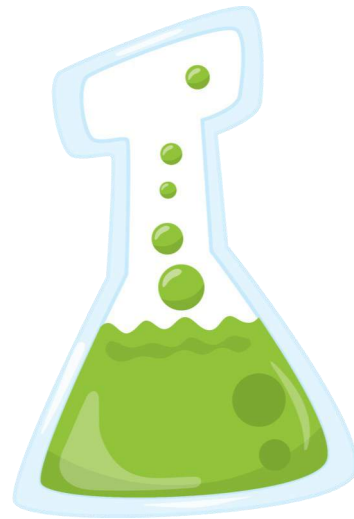
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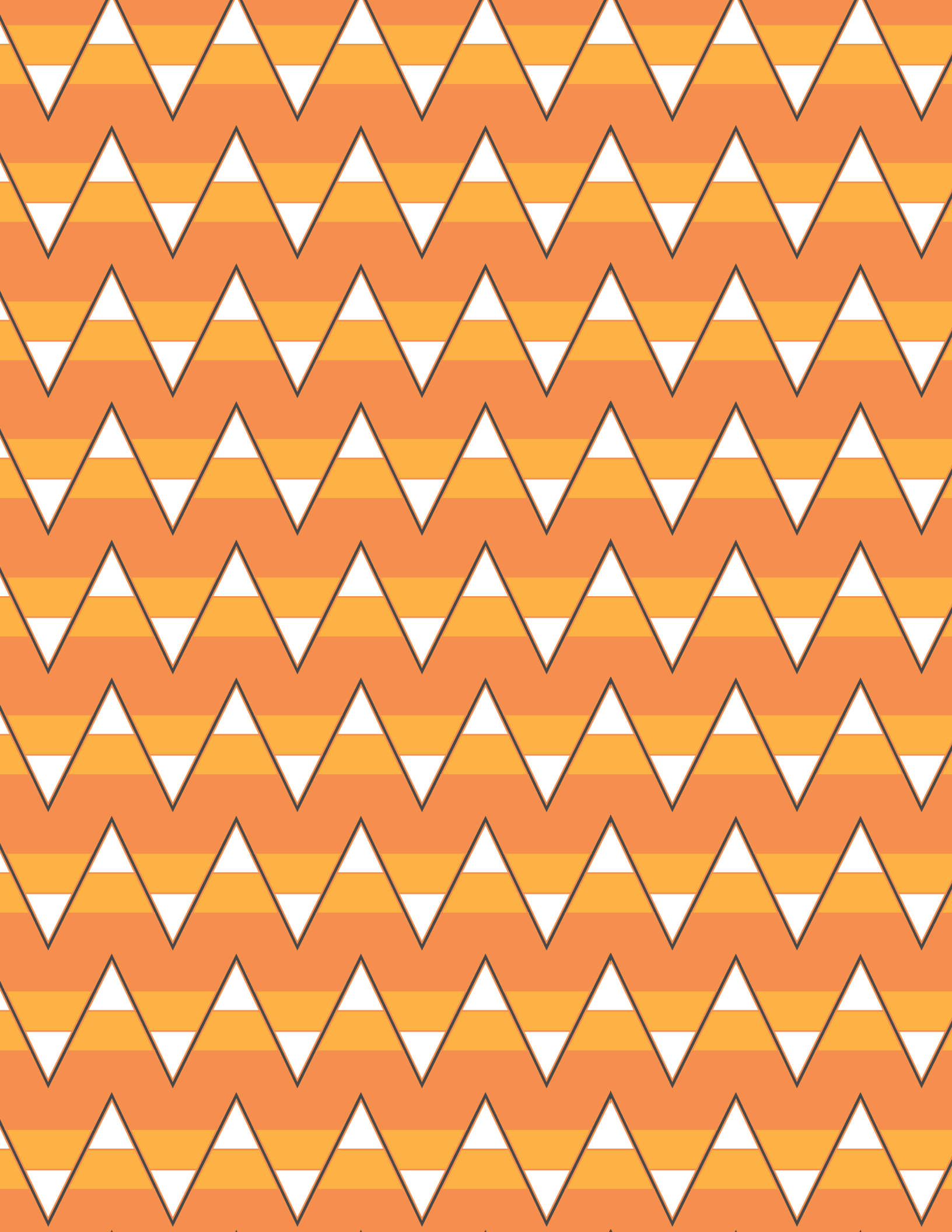
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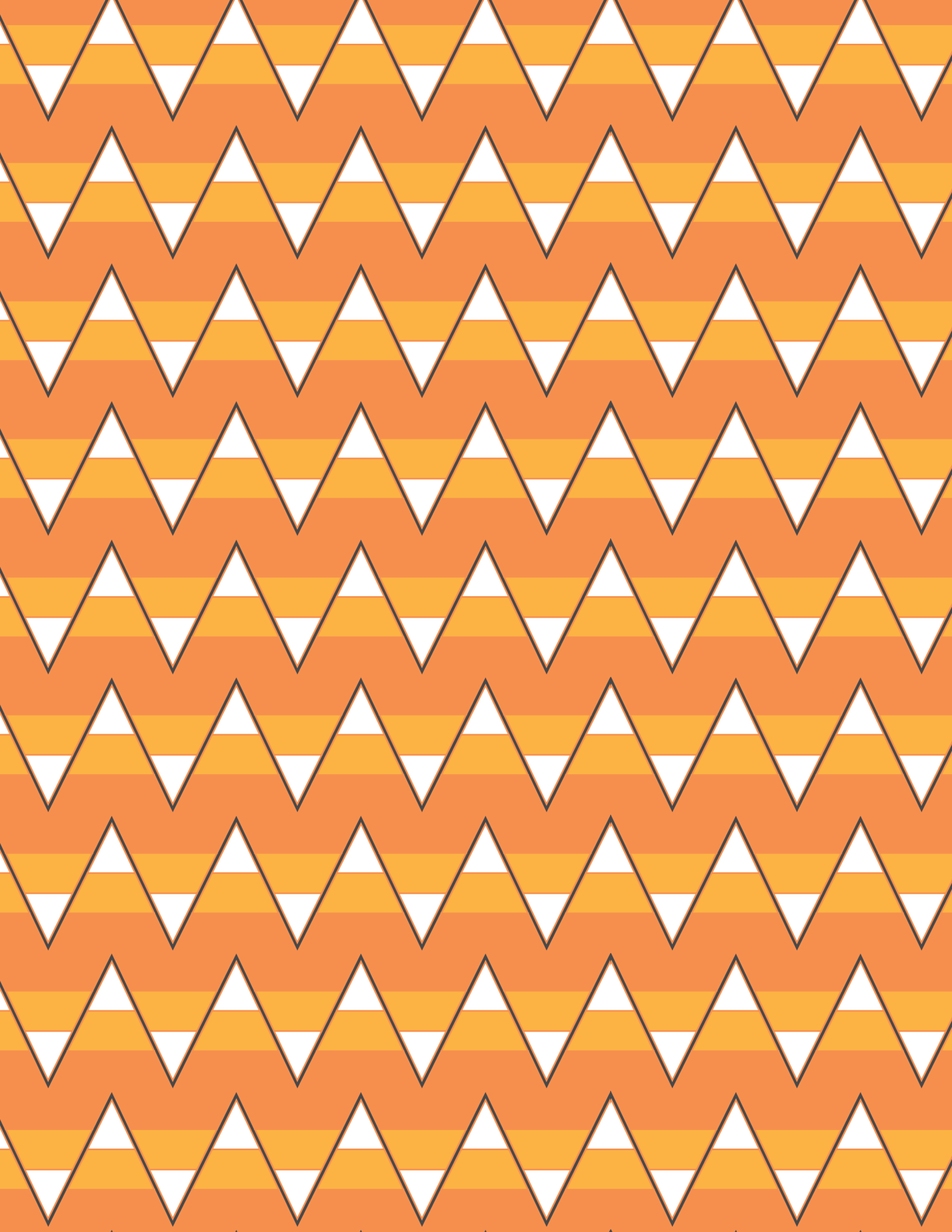
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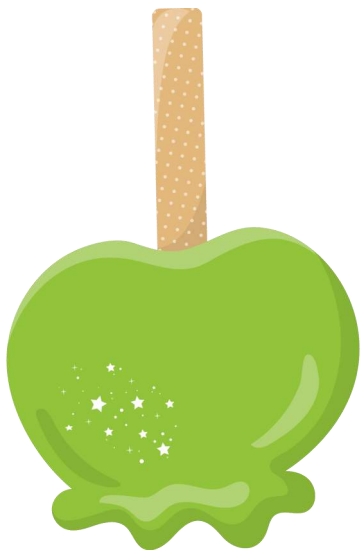


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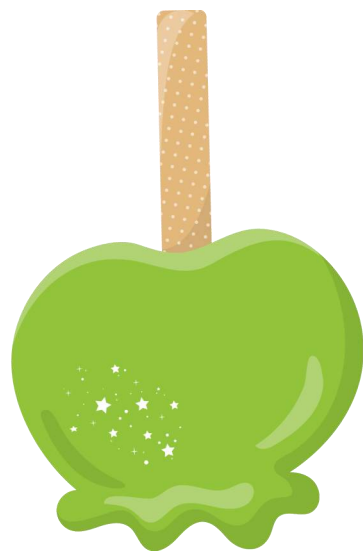


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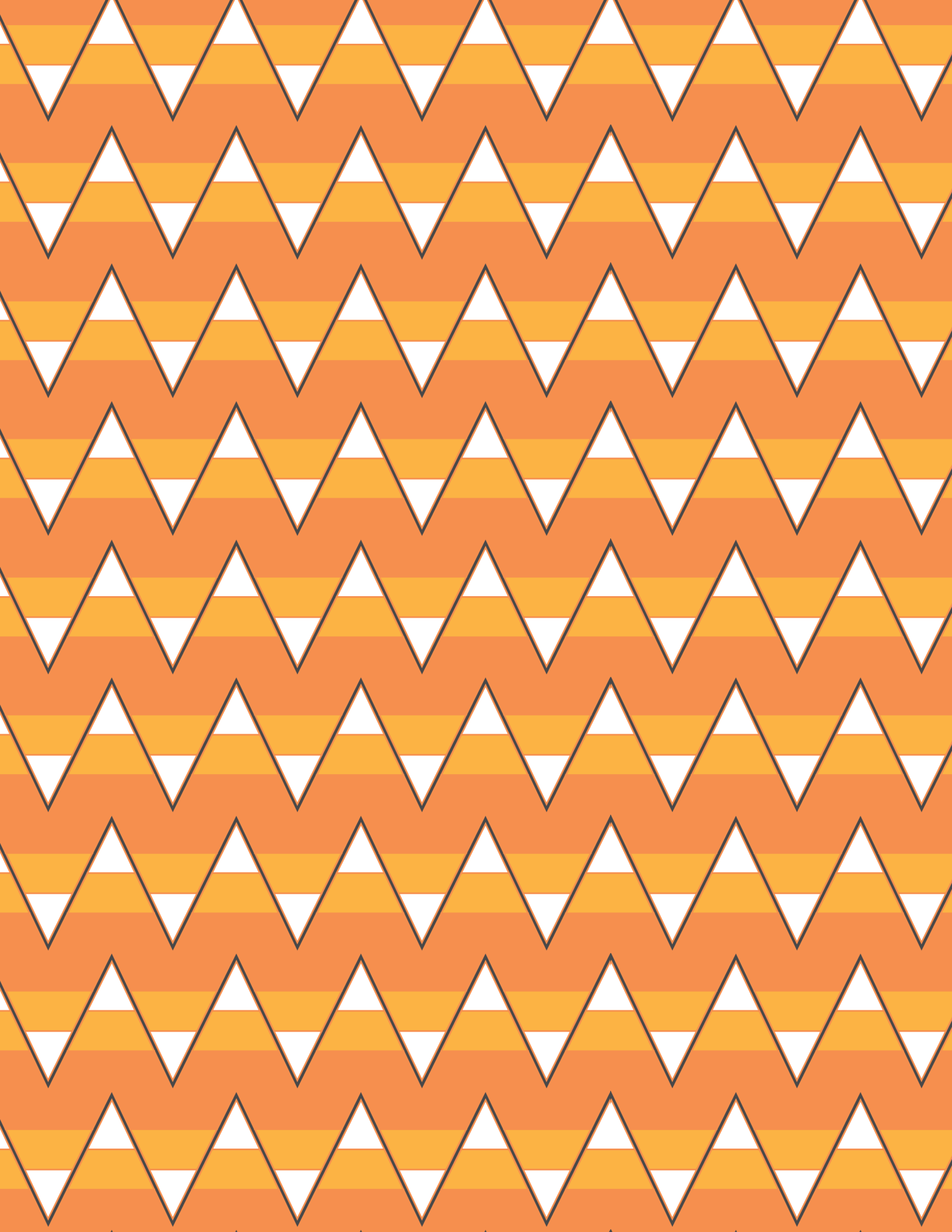
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BOO

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BOO

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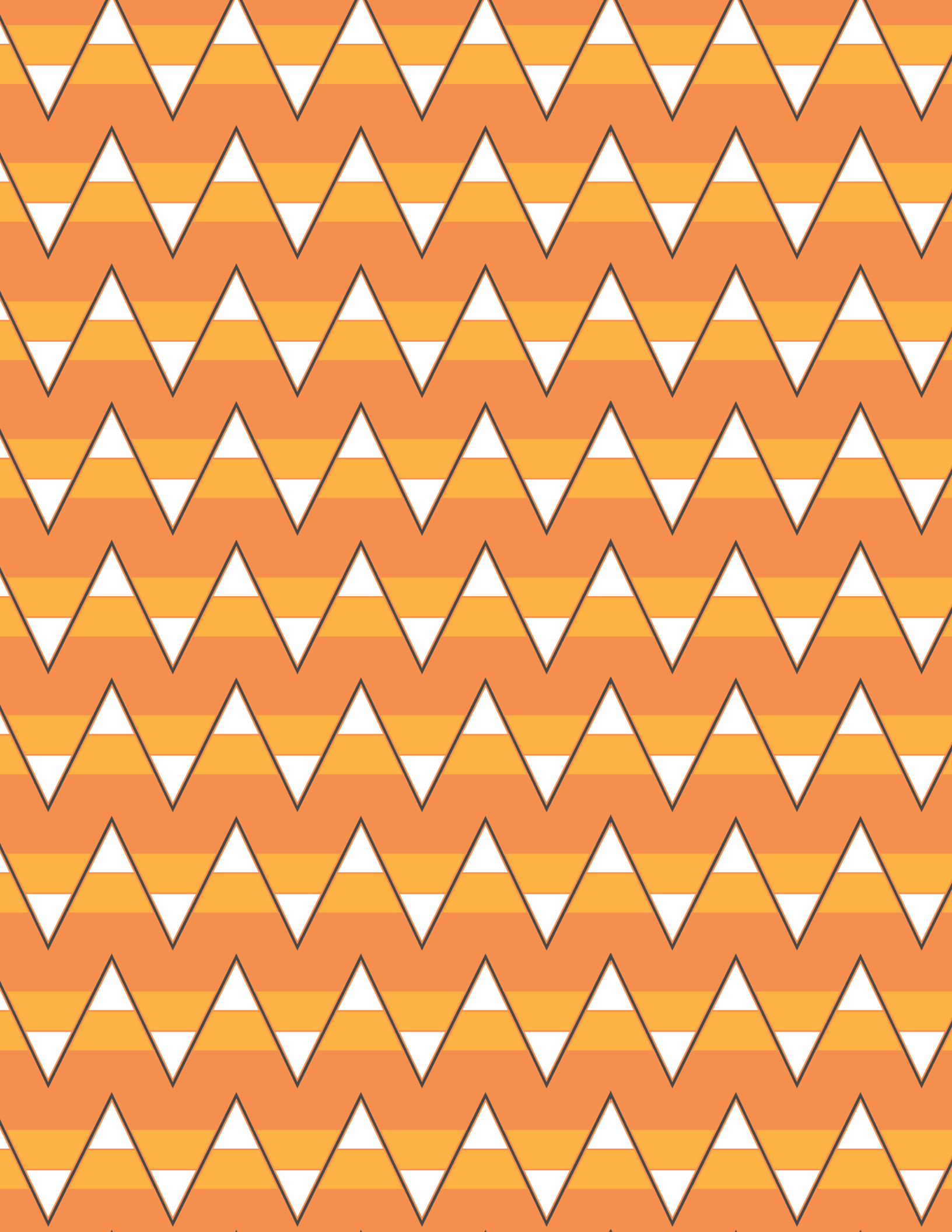
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HALLOWEEN FUN

Would You Rather? Conversation Starters



Would you rather?

scrape out pumpkin guts
or
bob for apples



Would you rather?

walk through a haunted
house or walk through
a cemetery
at night



Would you rather?

meet a vampire
or
a werewolf



Would you rather?

read a scary story
or
watch a scary movie



Would you rather?

make your own costume
or
buy your costume



Would you rather?

go trick-or-treating
at the mall
or
in your
neighborhood



Would you rather?

be chased by a zombie
or
a werewolf



Would you rather?

dress up as your favorite
superhero
or
a scary monster



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Would you rather?

be bit by a bat
or
by a spider



Would you rather?

fly on a broom
or
make brew up
a stew



Would you rather?

get chocolate candies
or
get gummy candies



Would you rather?

drink chocolate milk
or
pumpkin spiced milk



Would you rather?

eat candy corn
or
pumpkin peeps



Would you rather?

walk through a room
full of cobwebs
Or
Stick your hand in
a box full of
snakes



Would you rather?

be a ghost
Or
be a mummy



Would you rather?

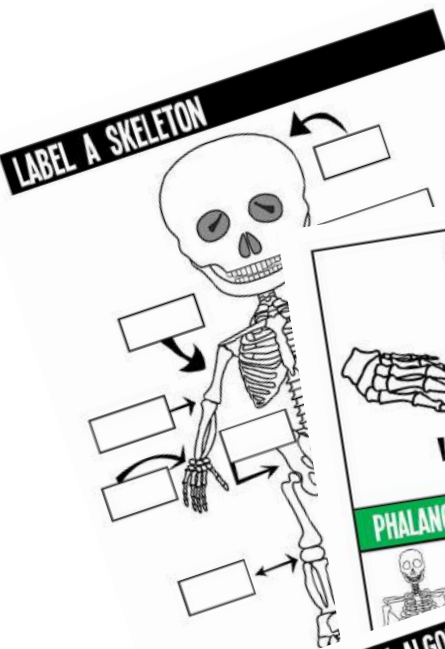
pet a slimy frog
or
hold a skeleton's
hand



HALLOWEEN SKELETON PACK

Skeletons aren't just for halloween! We each have a skeleton. Learn simple parts of a skeleton and try a few skeleton STEM challenges.

What's Included: Label A Skeleton, Build A Skeleton, Skeleton Parts Cards, Skeleton Craft, & Skeleton Coding Game

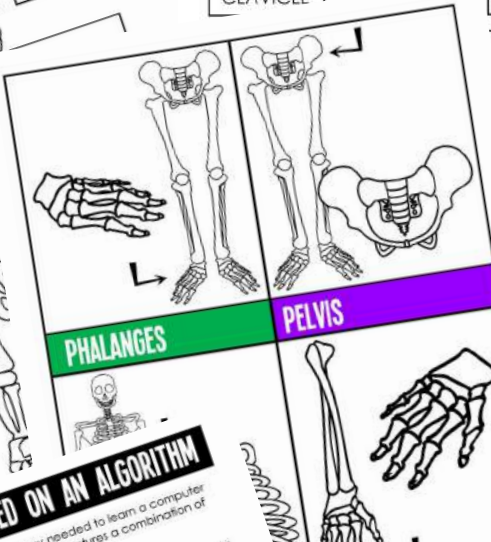


LABEL A SKELETON WORD BANK

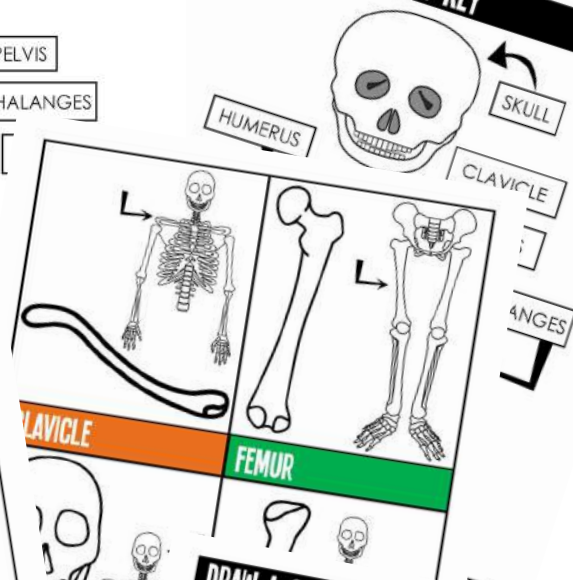
Cut out the labels and paste them to the skeleton on the next page.



SKULL ELBOW WRIST PELVIS
CLAVICLE PHALANGES



LABEL A SKELETON KEY

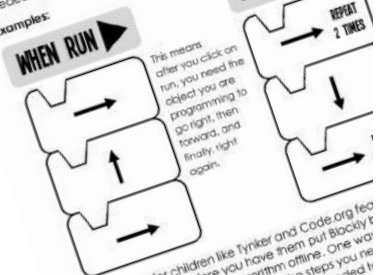


DRAW A SKELETON BASED ON AN ALGORITHM

Years ago when people learned to code, they needed to learn a computer language like Cobol, Basic or C++. The language features a combination of words, letters, numbers and symbols.

A few years ago Neil Fraser invented a coding language called Blockly Bio which features visual block programming. A series of command or function blocks are linked together vertically to create an algorithm or series of steps needed to complete a task.

Examples:

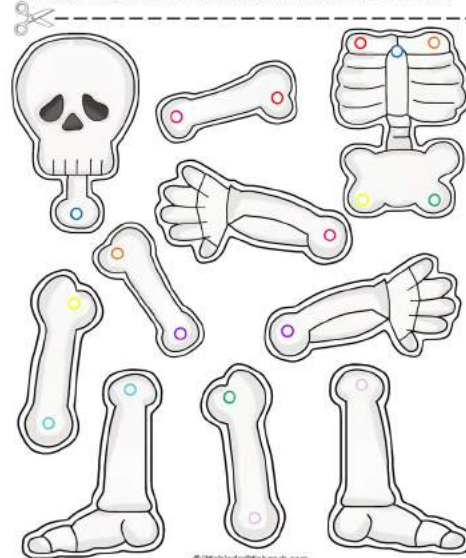


Coding sites for children like Tinkler and Code.org teach coding activities. Before you have them put Blockly Bio can have them follow an algorithm outline. One way to have them follow an algorithm is to follow the steps needed to draw a skeleton. The algorithm or series of steps needed to draw a skeleton can be found on the Drawing a Skeleton Based on an Algorithm page.

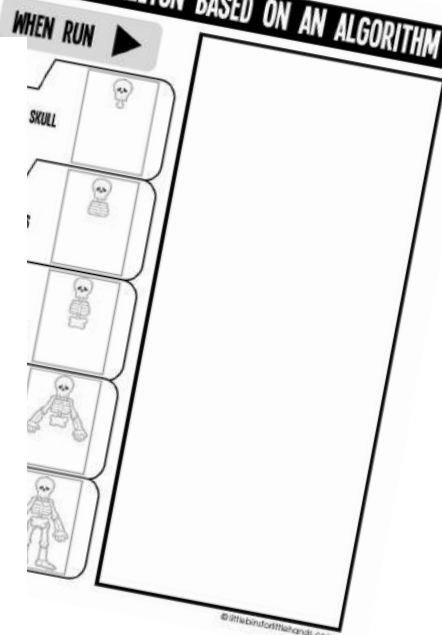
What will they do? Your children will draw each of the blocks from the top block to the bottom block, and finally, right again.

SKELETON CRAFT

Cut out the bones. Match the color circles and secure bones with brads.

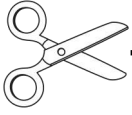


DRAW A SKELETON BASED ON AN ALGORITHM



LABEL A SKELETON WORD BANK

Cut out the labels and paste them to the skeleton on the next page.



SKULL

ELBOW

WRIST

PELVIS

CLAVICLE

PHALANGES

PHALANGES

HUMERUS

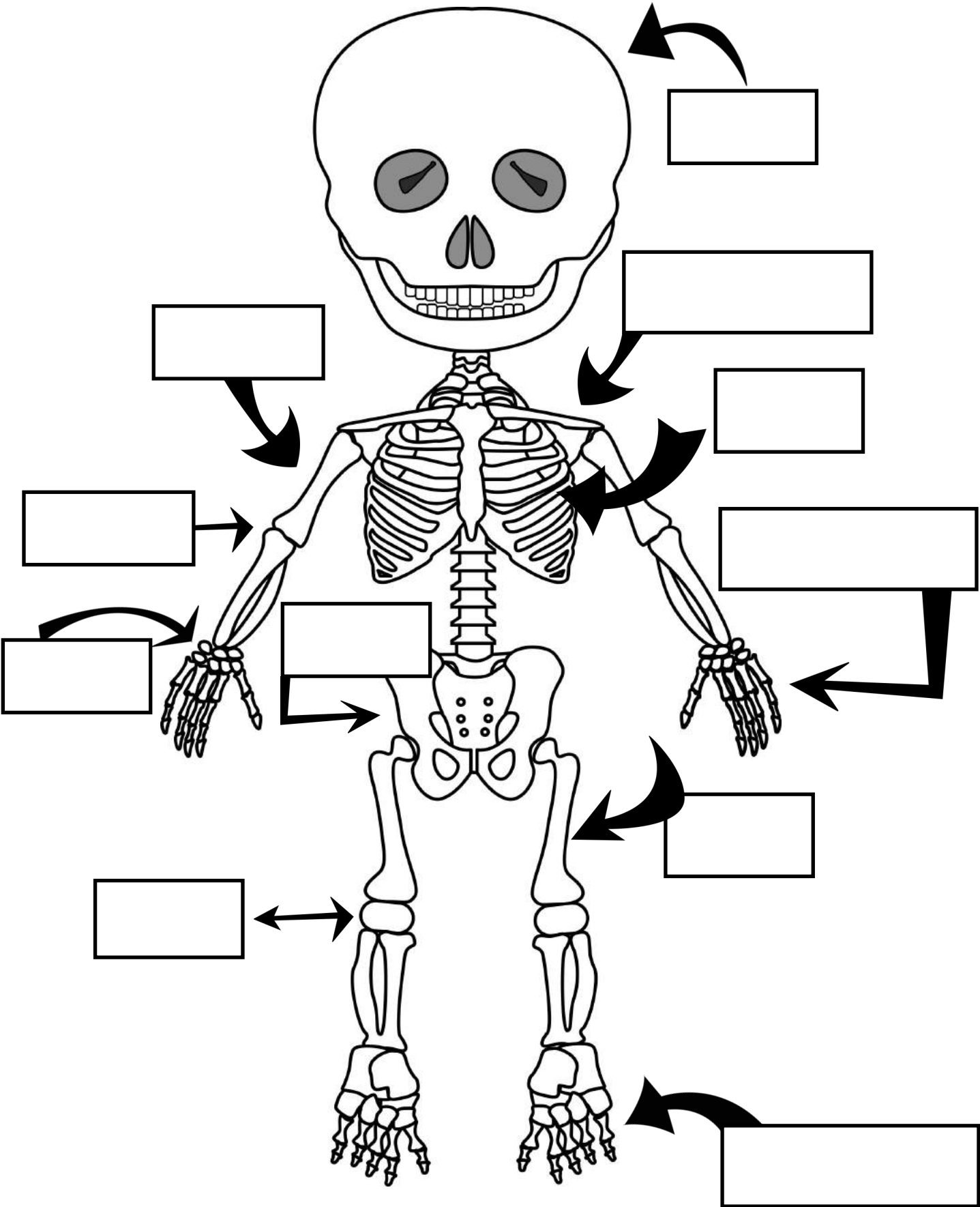
KNEE

FEMUR

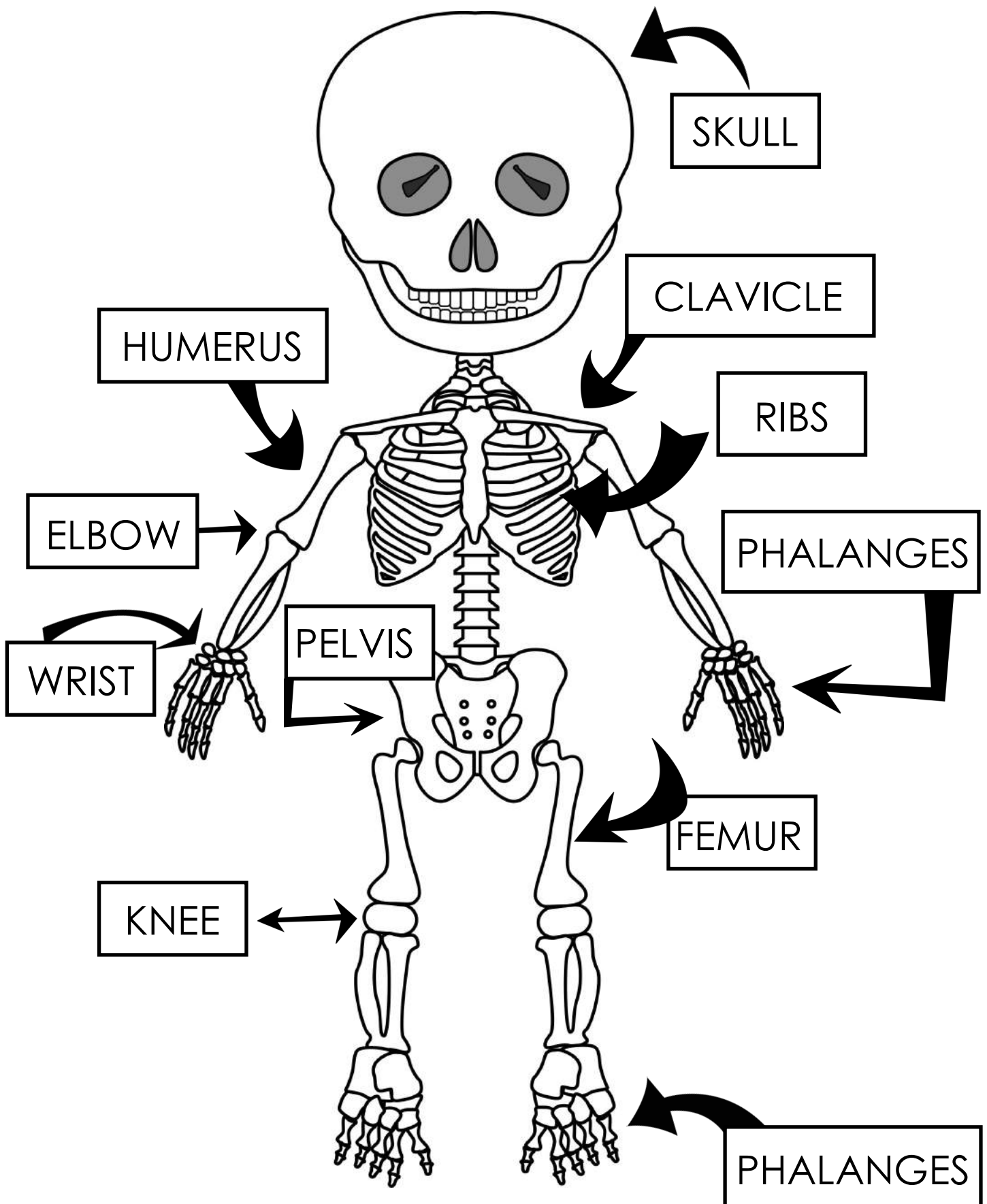
RIBS

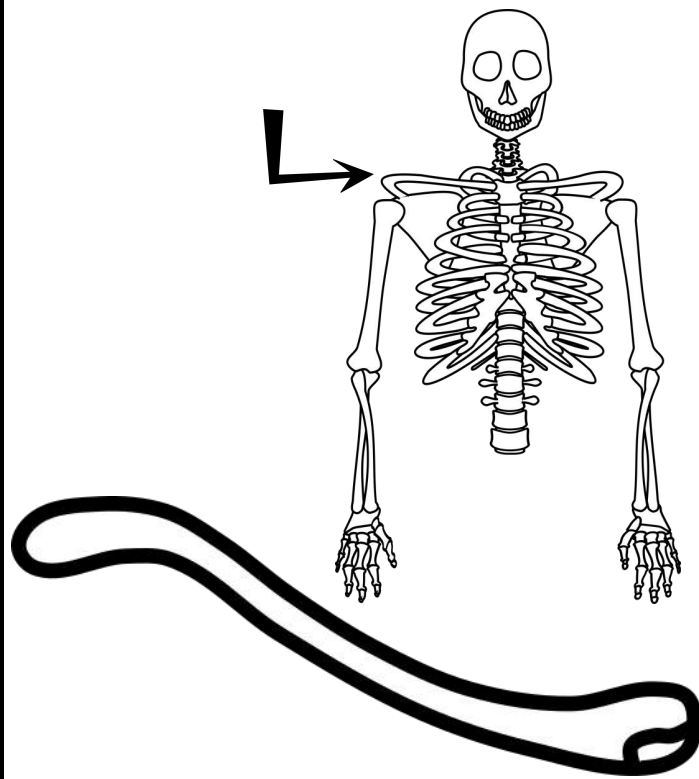


LABEL A SKELETON

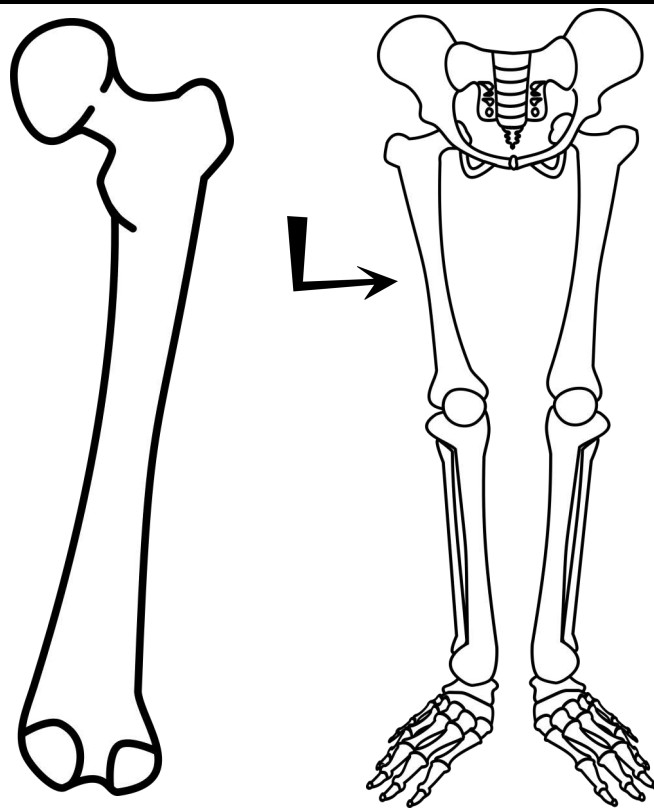


LABEL A SKELETON KEY

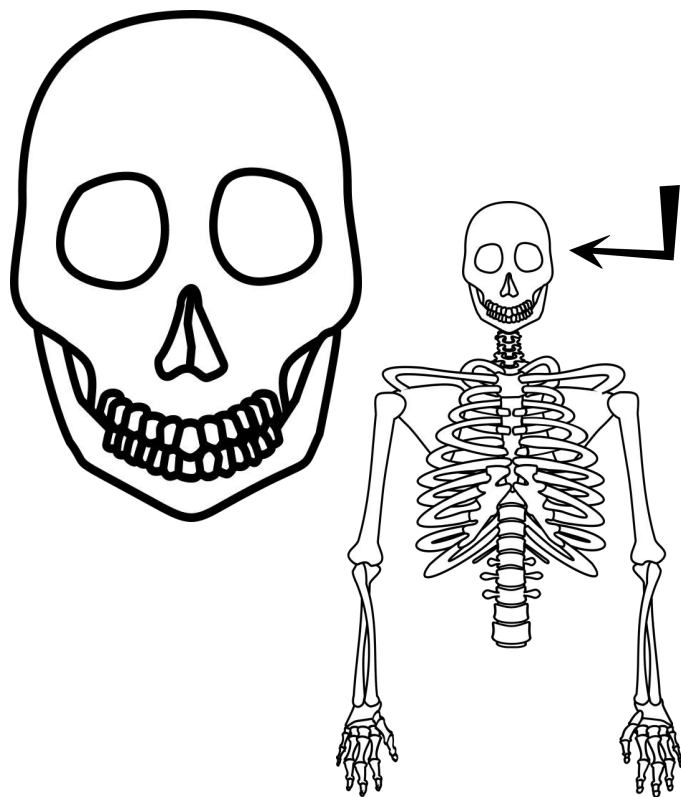




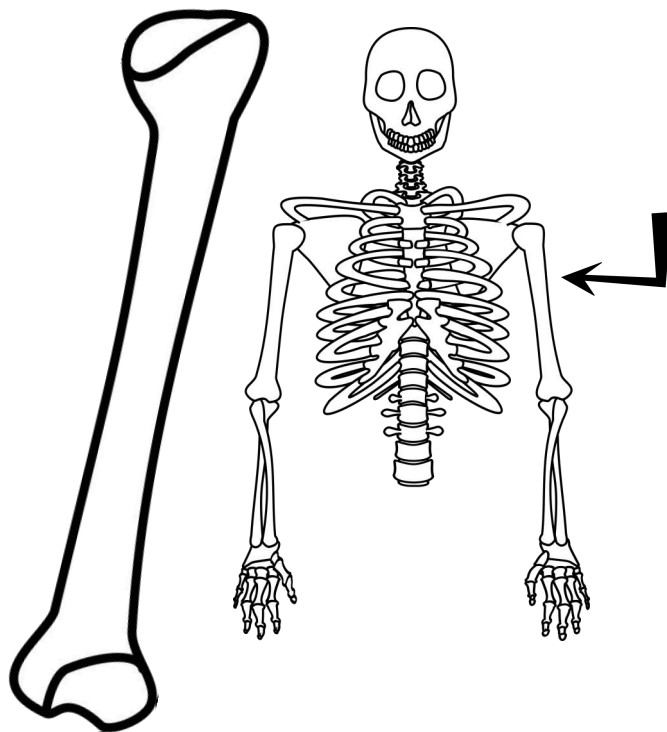
CLAVICLE



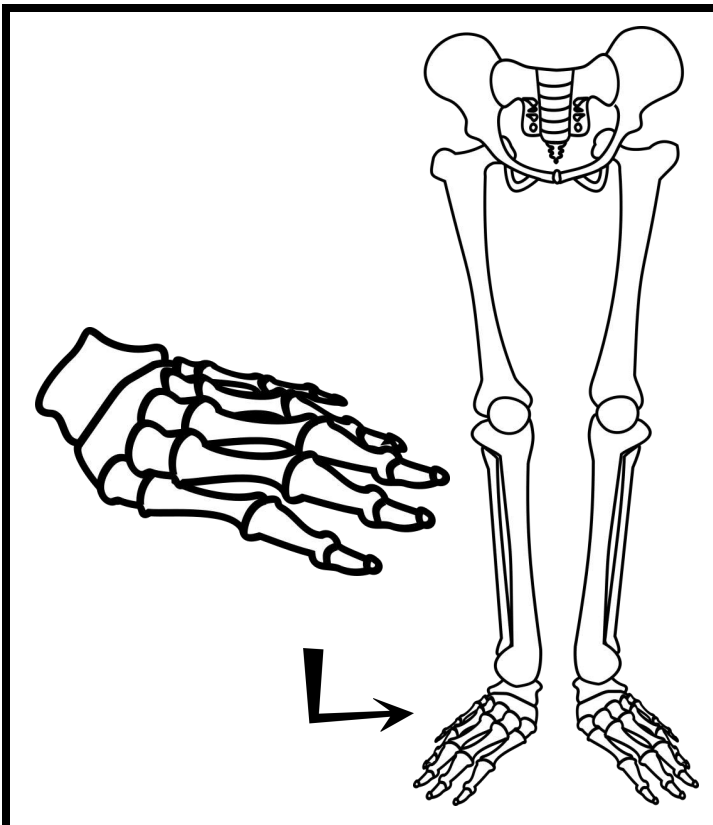
FEMUR



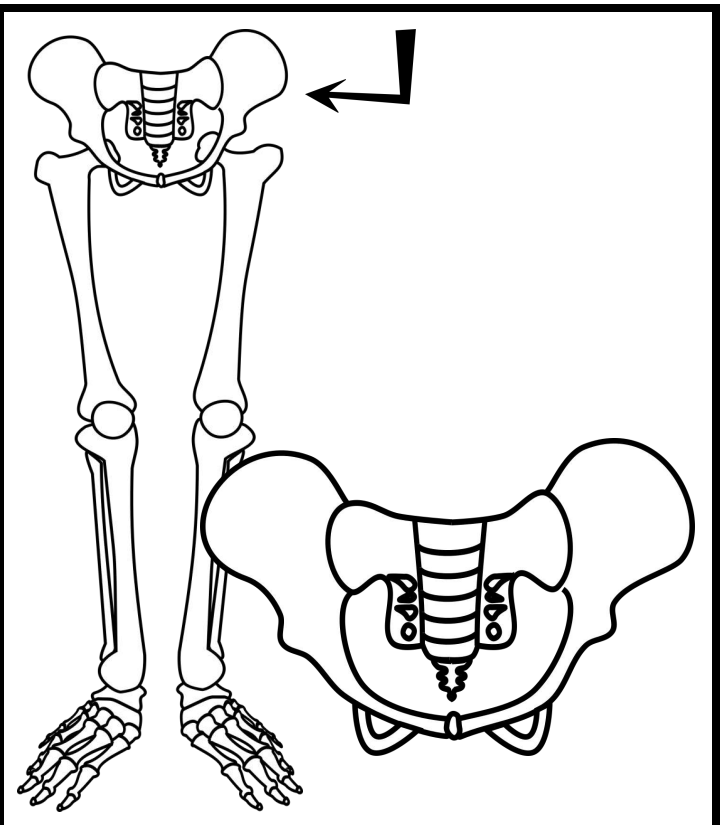
SKULL



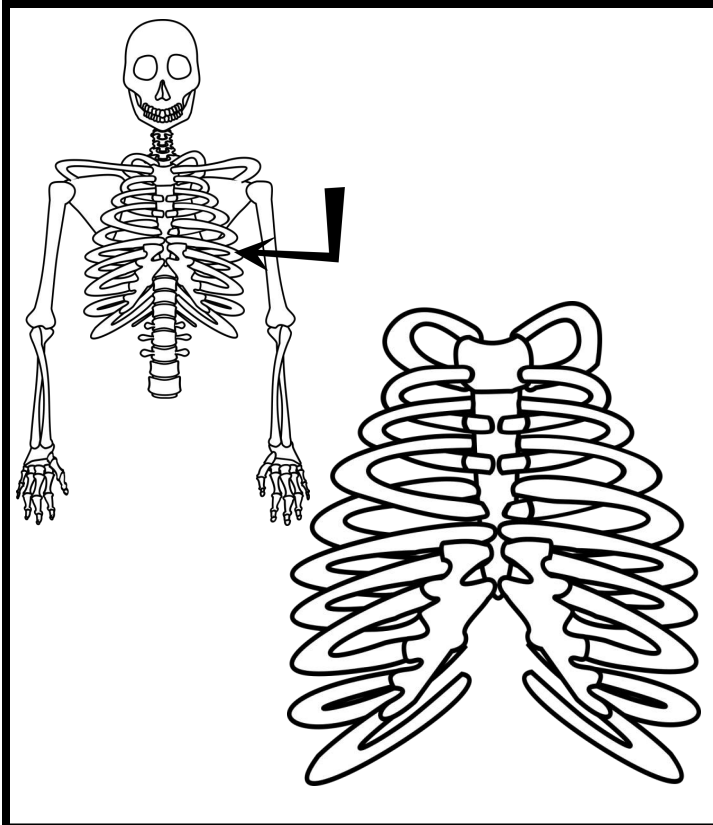
HUMERUS



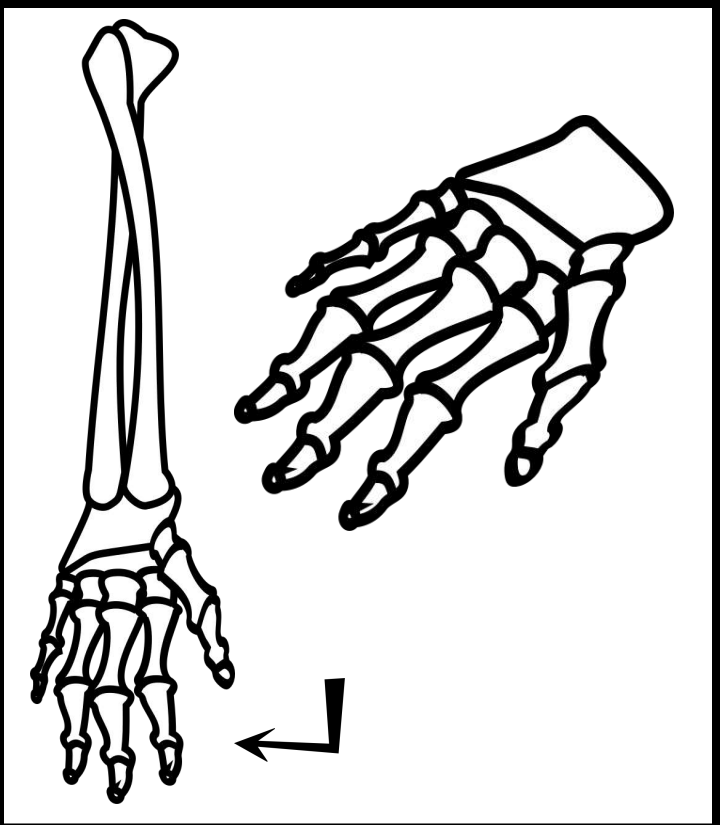
PHALANGES



PELVIS



RIBS



PHALANGES

BUILD A SKELETON CHALLENGE

SUPPLY IDEAS



Cotton Swabs



Playdough



Foam Peanuts



Drinking Straws



Toothpicks



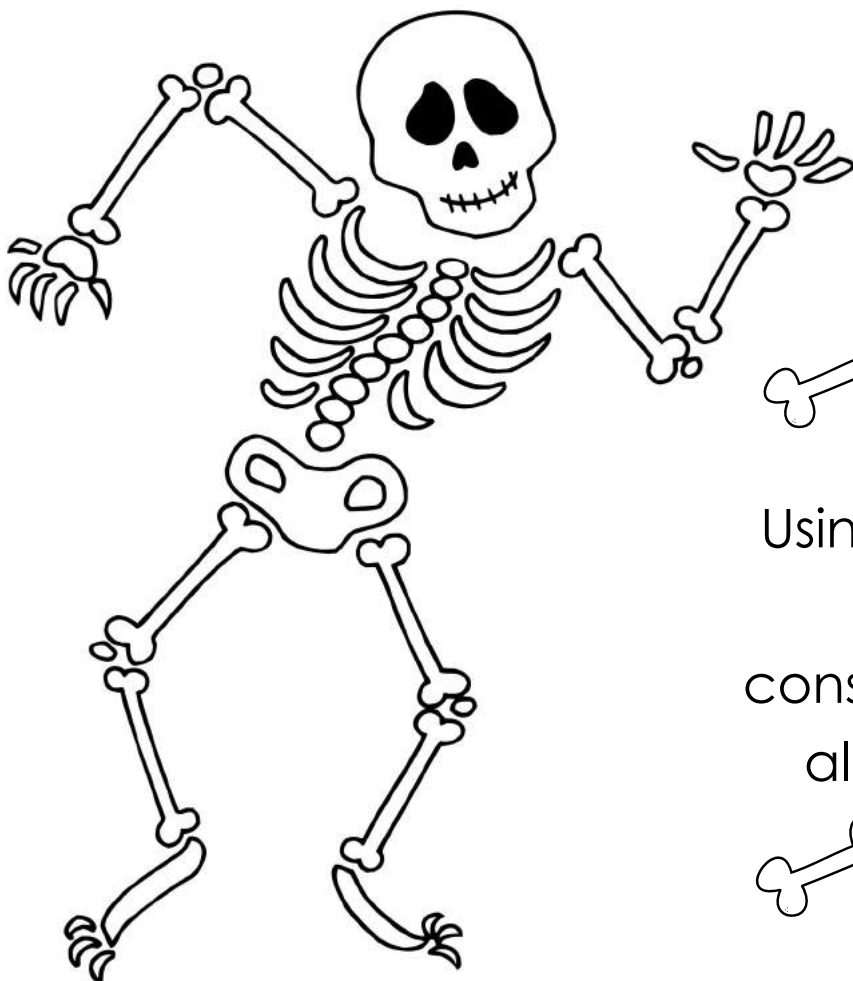
Glue



Pasta Shapes



Tape



CHALLENGE

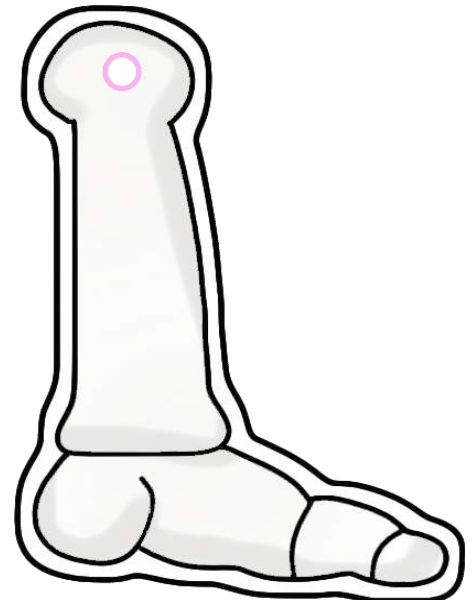
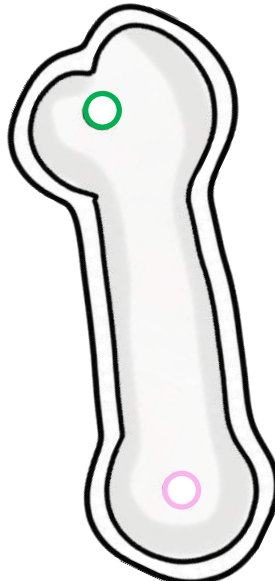
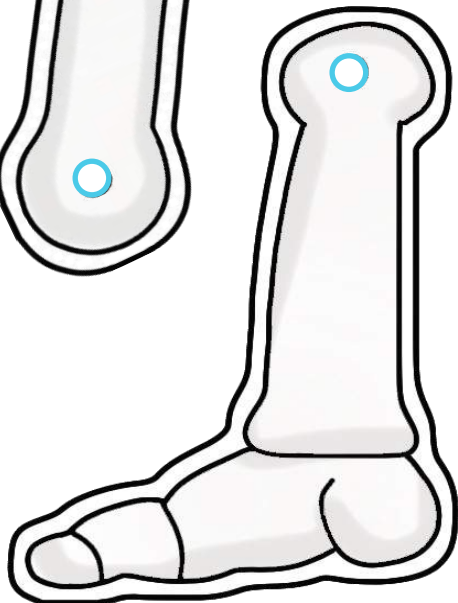
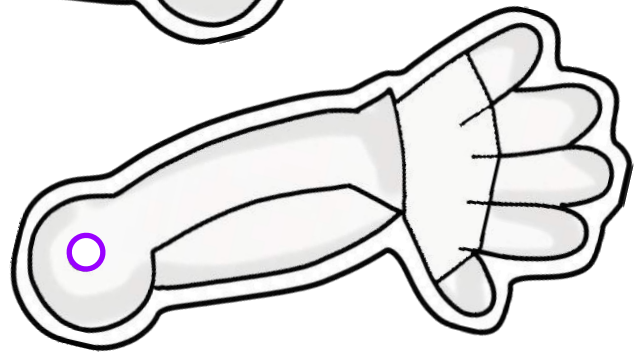
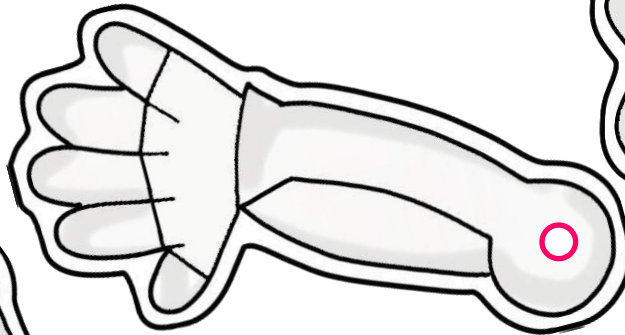
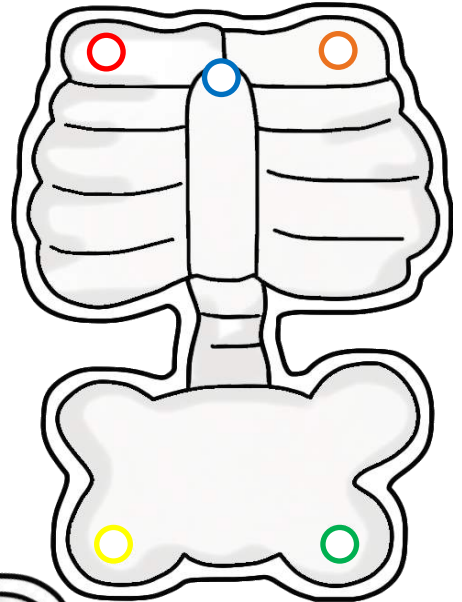
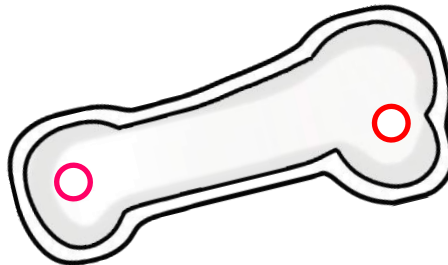
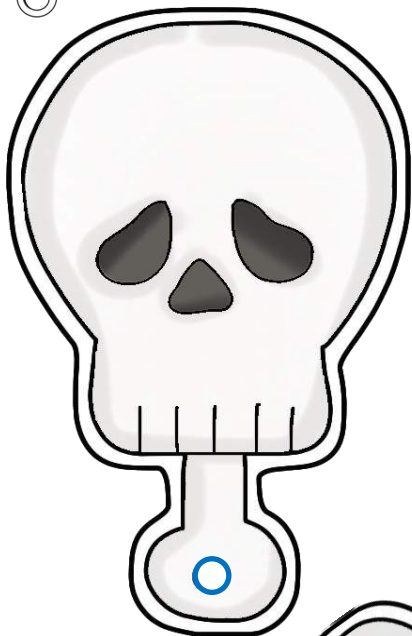
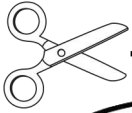


Using any materials you have available, construct a skeleton with all the correct parts!

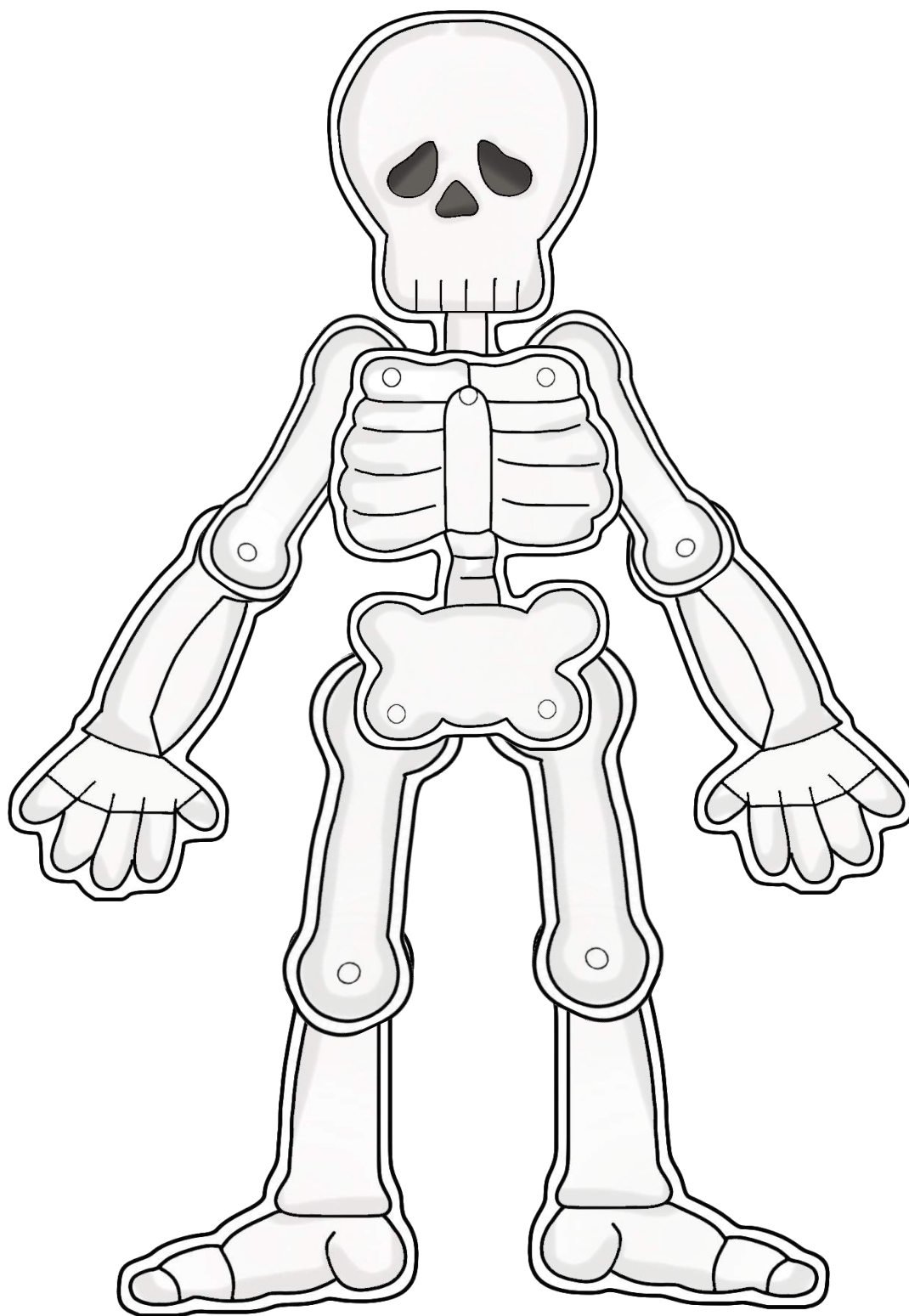


SKELETON CRAFT

Cut out the bones. Match the color circles and secure bones with brads.



SKELETON CRAFT KEY

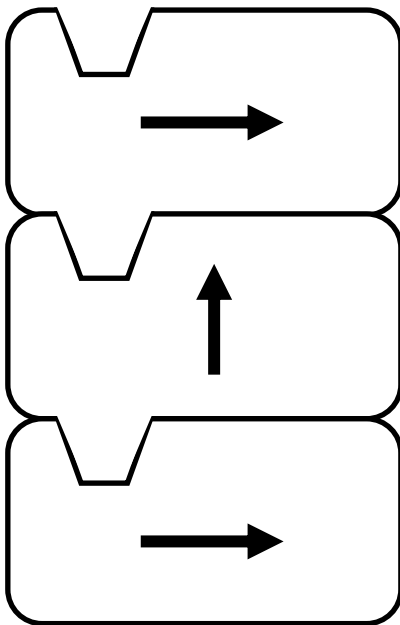


DRAW A SKELETON BASED ON AN ALGORITHM

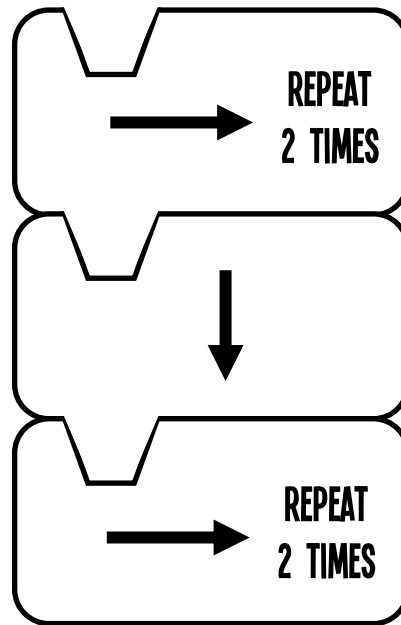
Years ago when people learned to code. They needed to learn a computer language like Cobol, Basic or C++. The language features a combination of words, letters, numbers and symbols.

A few years ago Neil Fraser invented a coding language called Blockly Blocks which features visual block programming. A series of command or function blocks are linked together vertically to create an algorithm or series of steps needed to complete a task.

Examples:



This means after you click on run, you need the object you are programming to go right, then forward, and finally, right again.



This means after you click on run, you need the object you are programming to go right twice, then backwards, and finally, right again twice.

Coding sites for children like Tynker and Code.org feature Blockly Blocks in their coding activities. Before you have them put Blockly blocks together online, you can have them follow an algorithm offline. One way they can work with a Blockly block algorithm is to follow the steps you need to draw an object like a skeleton. The algorithm or series of steps needed to draw and color a skeleton can be found on the Drawing a Skeleton Based on an Algorithm worksheet.

What will they do? Your children will draw what is mentioned or pictured in each of the blocks from the top block to the bottom block. When they have completed each step displayed in the block, they will have drawn a skeleton.

DRAW A SKELETON BASED ON AN ALGORITHM

WHEN RUN



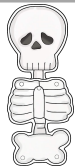
DRAW A SKULL



DRAW RIBS

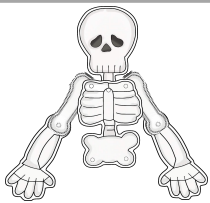


DRAW A PELVIS



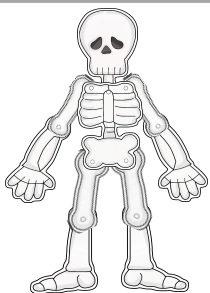
DRAW ARM BONES

REPEAT 2 TIMES



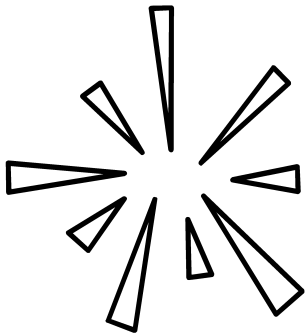
DRAW LEG BONES

REPEAT 2 TIMES



CANDY CORN TOWER CHALLENGE

Can you make a tower out of candy corn?



CHALLENGE

In 15 minutes make the tallest tower possible using nothing but candy corn.

MEASURE YOUR TOWER

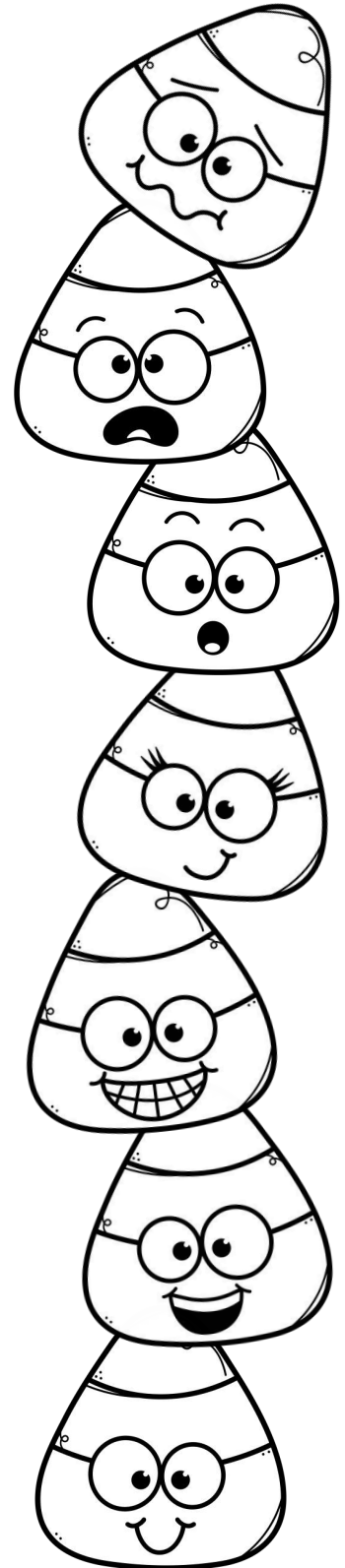
Number of Candy Corn	
----------------------	--

ENGLISH MEASUREMENT

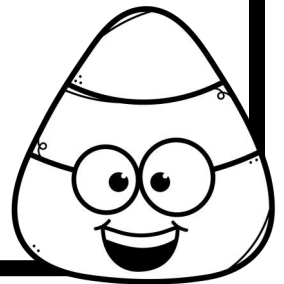
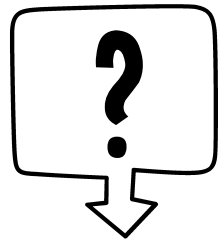
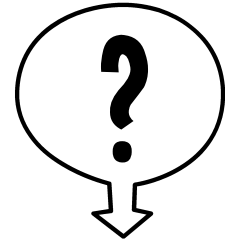
How tall is it?	
How wide is it?	
How long is it?	

METRIC MEASUREMENT

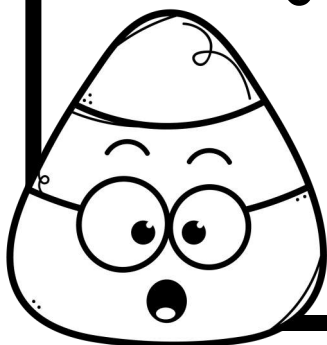
How tall is it?	
How wide is it?	
How long is it?	



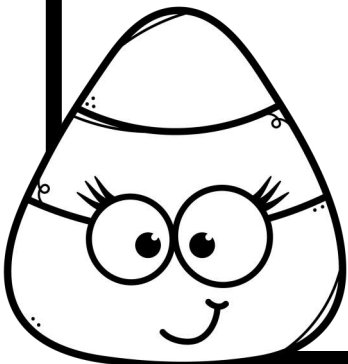
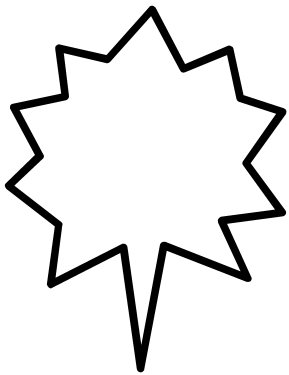
ASK: WHAT'S THE PROBLEM?



IMAGINE: RECORD POSSIBLE SOLUTIONS



MY STEM CHALLENGE: CANDY CORN TOWER



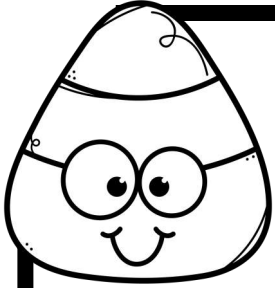
PLAN: DRAW A DIAGRAM

MY STEM CHALLENGE: CANDY CORN TOWER

PLAN: MAKE A PLAN FOR YOUR PROBLEM

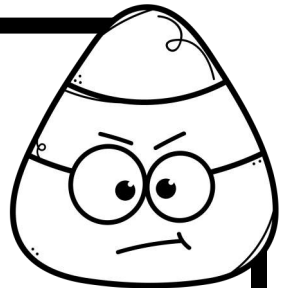
[illegible]

CREATE: BUILD A MODEL

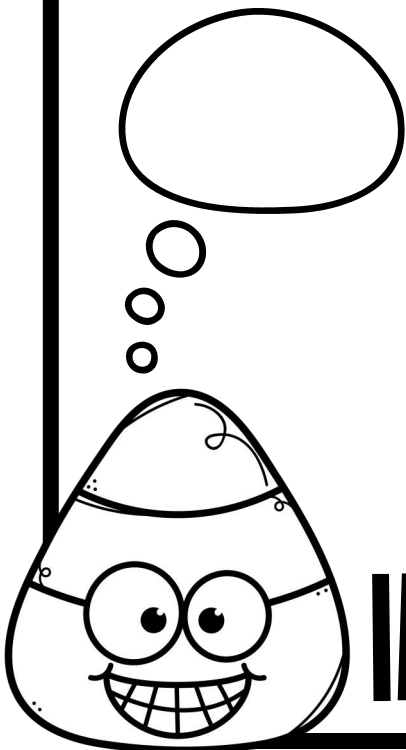


WHAT WORKED?

WHAT DIDN'T WORK?



MY STEM CHALLENGE: CANDY CORN TOWER



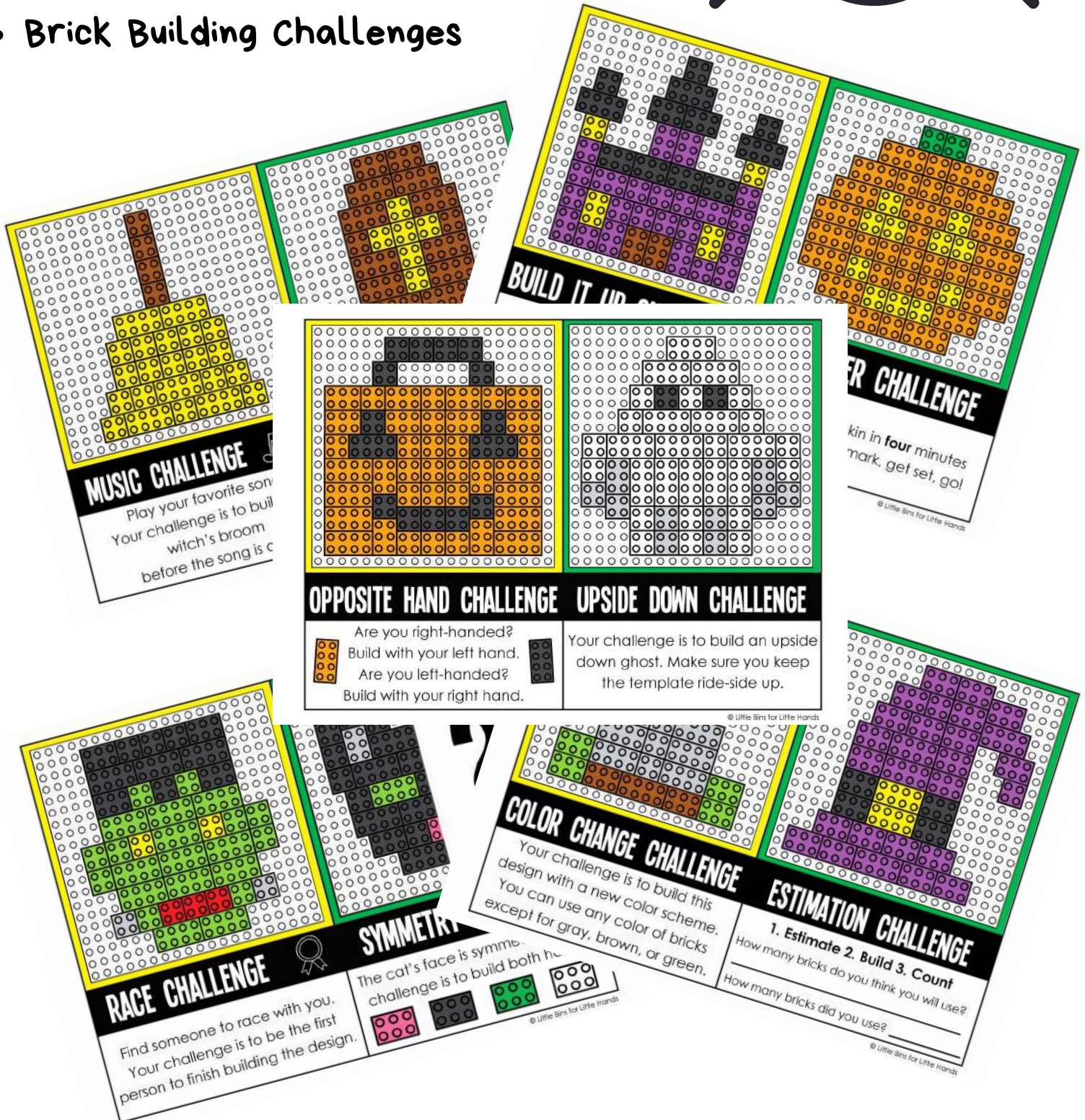
IMPROVE: DRAW A NEW DIAGRAM

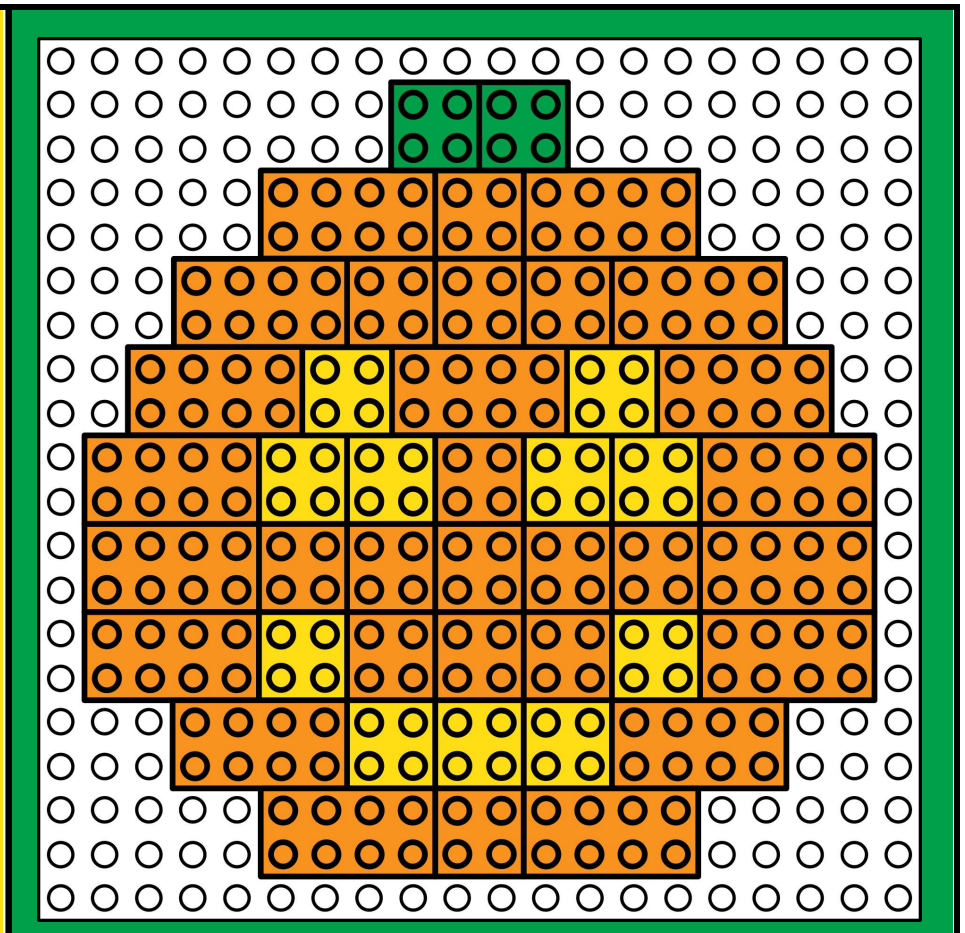
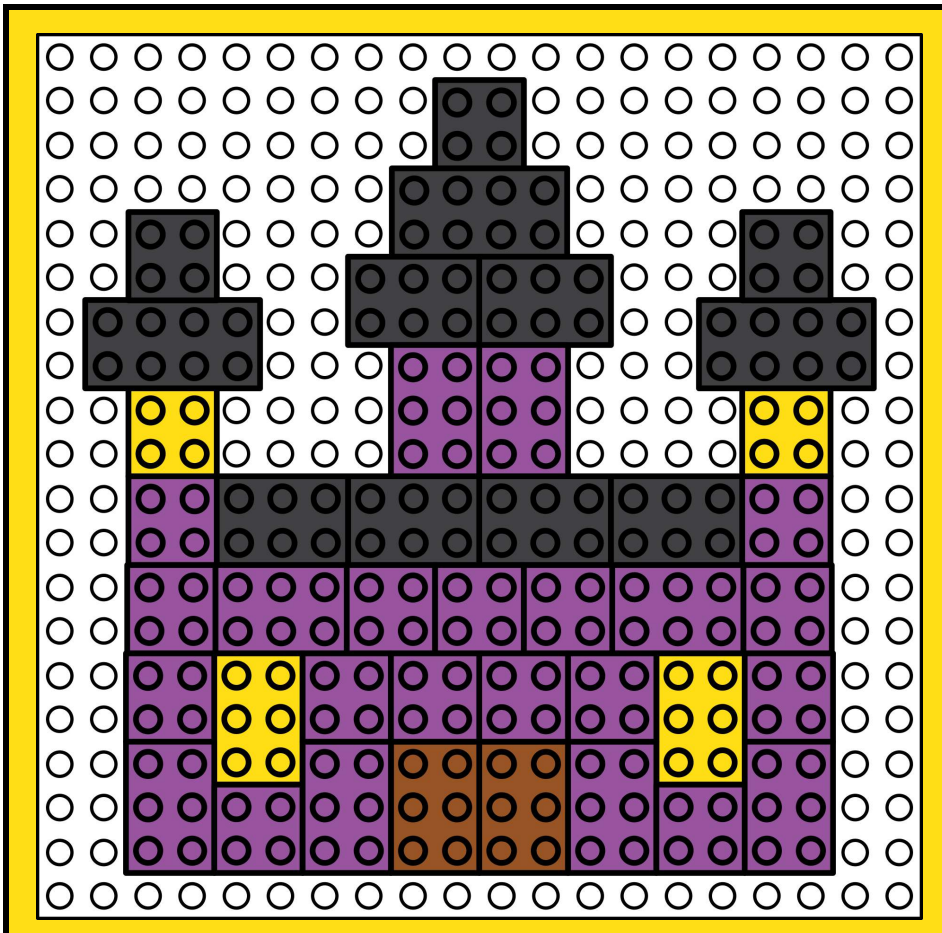
HALLOWEEN BRICK BUILDING

Try these Halloween themed brick building activities perfect for your brick building fans.

What's Included:

- Brick Building Math
- Brick Building Challenges





BUILD IT UP CHALLENGE



Build it twice as tall!

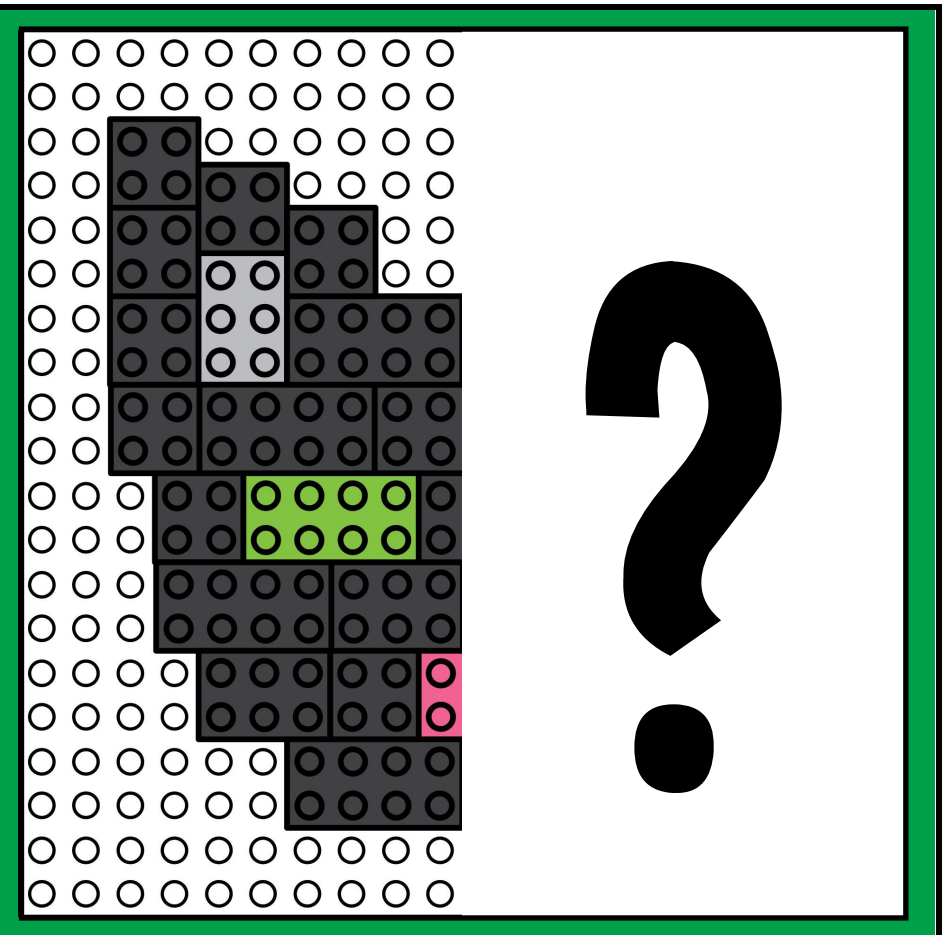
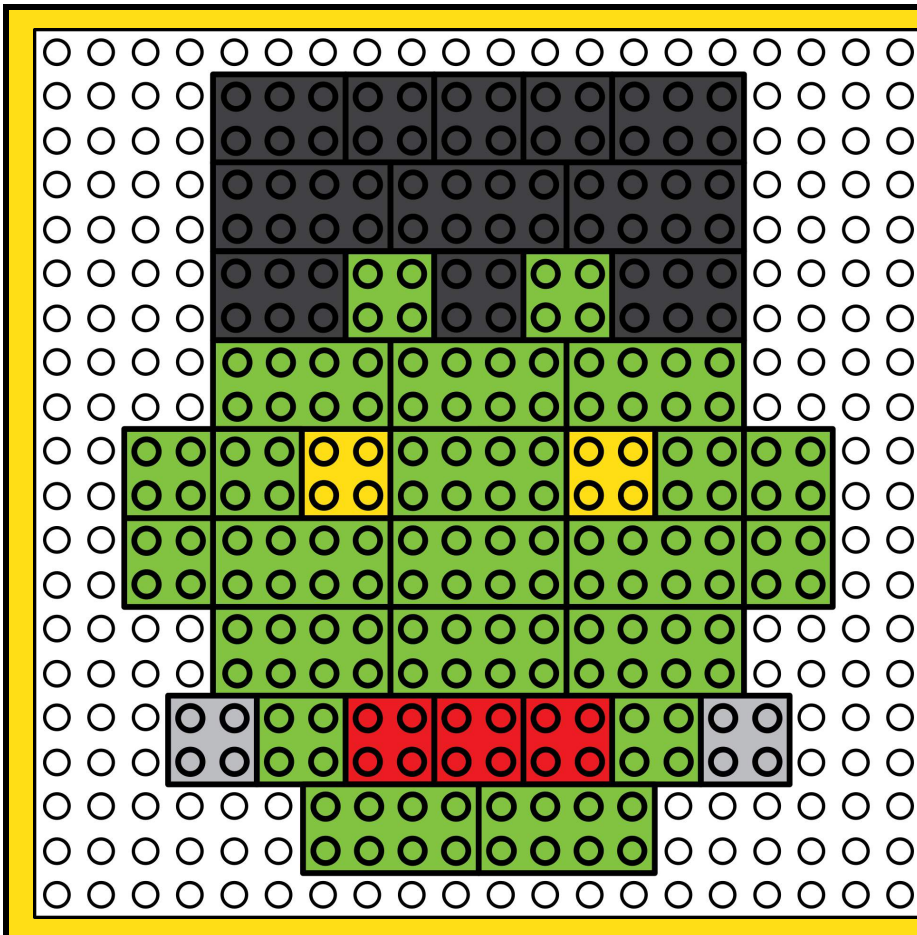


Make sure the entire haunted house has two layers of bricks.



TIMER CHALLENGE

Build the pumpkin in **four** minutes or less. On your mark, get set, go!



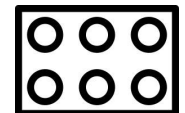
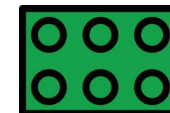
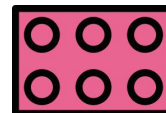
RACE CHALLENGE

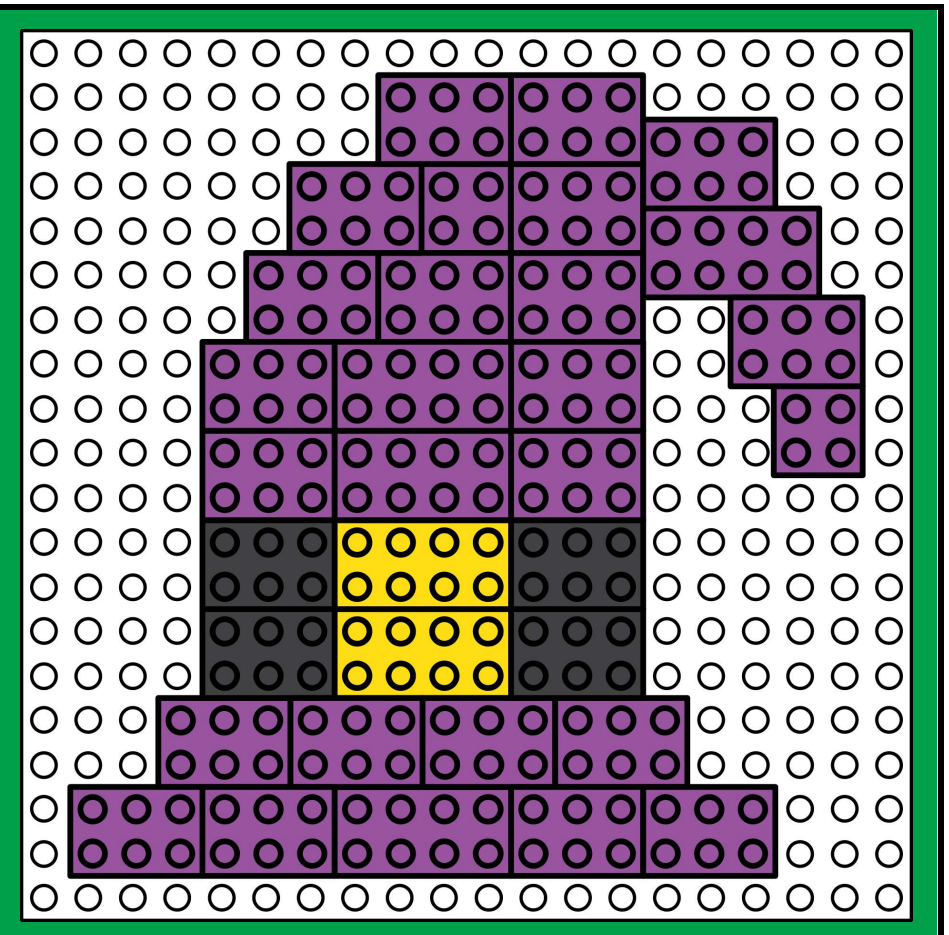
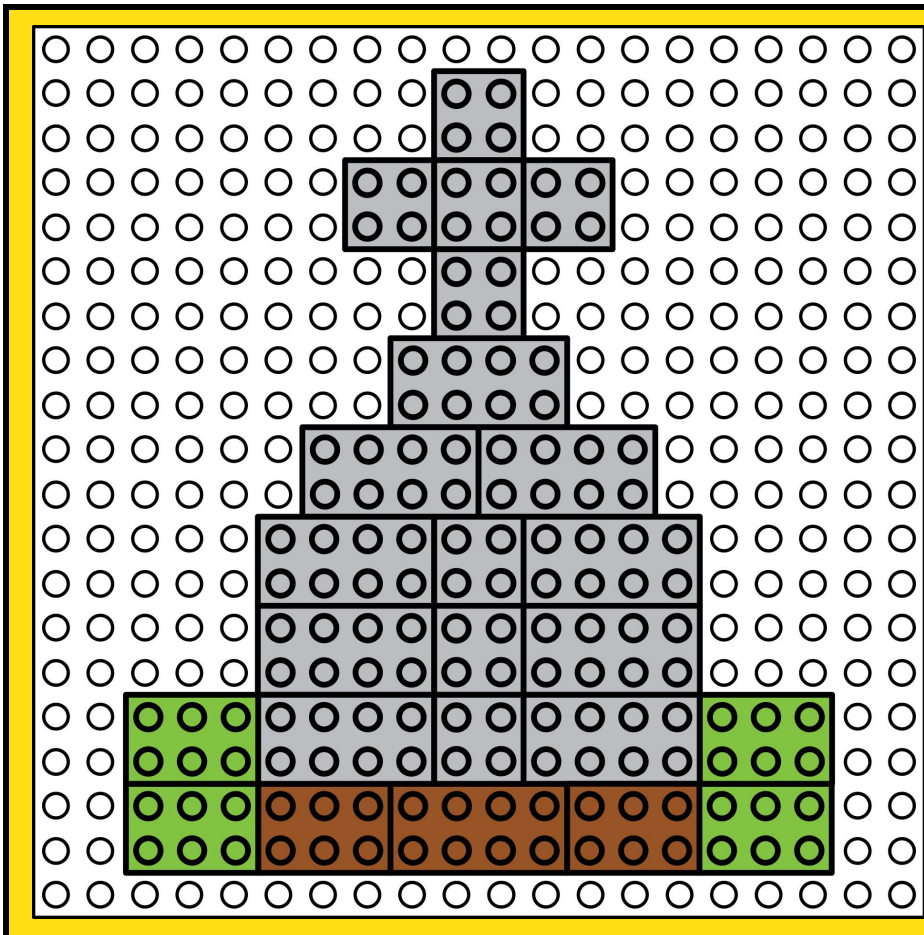


Find someone to race with you.
Your challenge is to be the first
person to finish building the design.

SYMMETRY CHALLENGE

The cat's face is symmetrical. Your
challenge is to build both halves.





COLOR CHANGE CHALLENGE

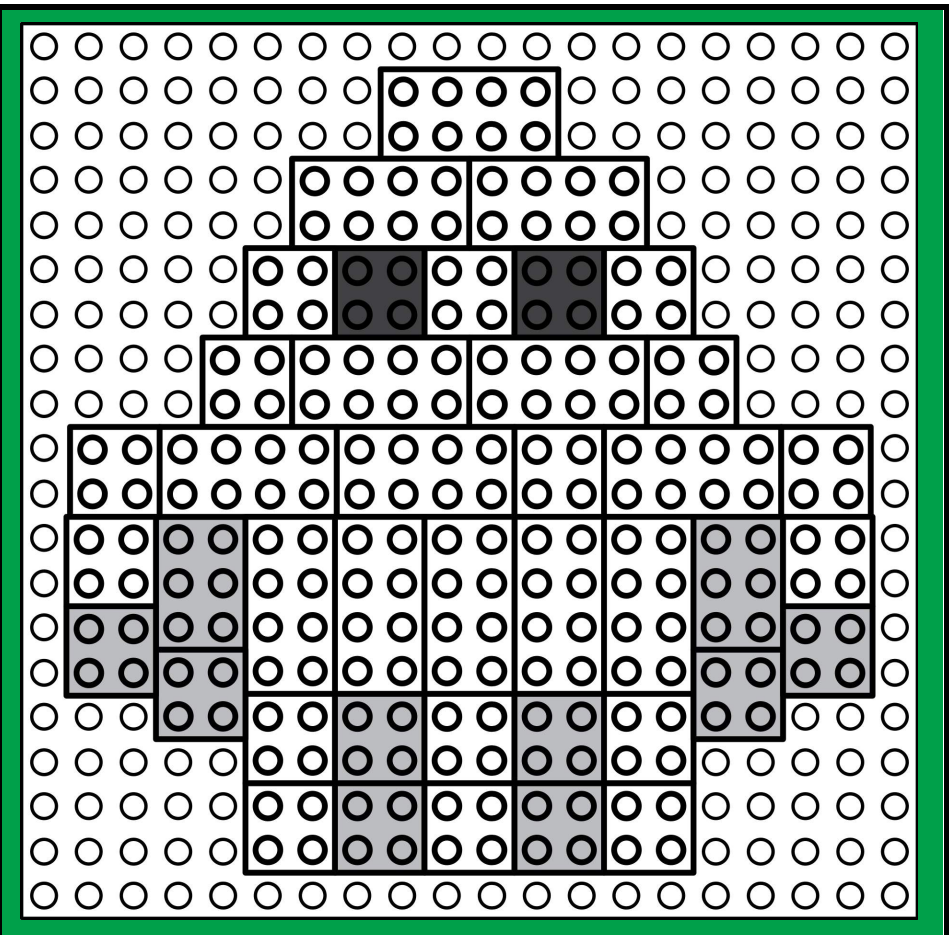
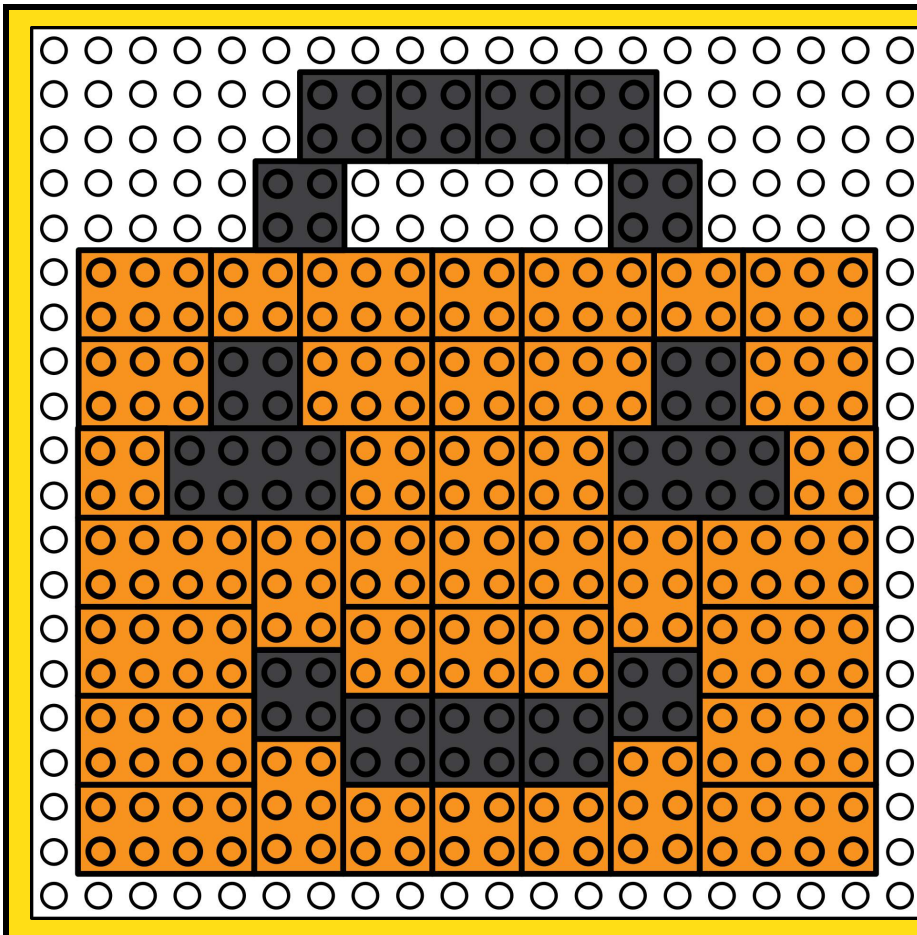
Your challenge is to build this design with a new color scheme. You can use any color of bricks except for gray, brown, or green.

ESTIMATION CHALLENGE

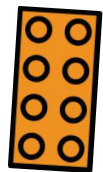
1. Estimate 2. Build 3. Count

How many bricks do you think you will use?

How many bricks did you use? _____

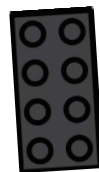


OPPOSITE HAND CHALLENGE



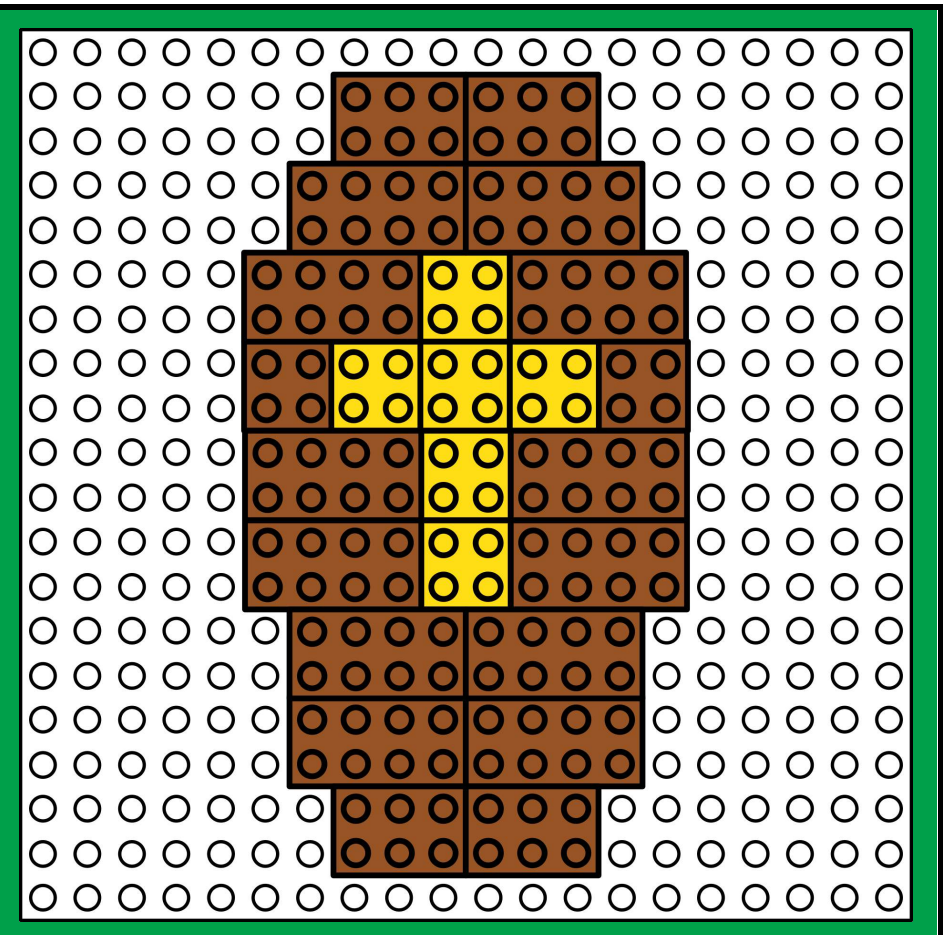
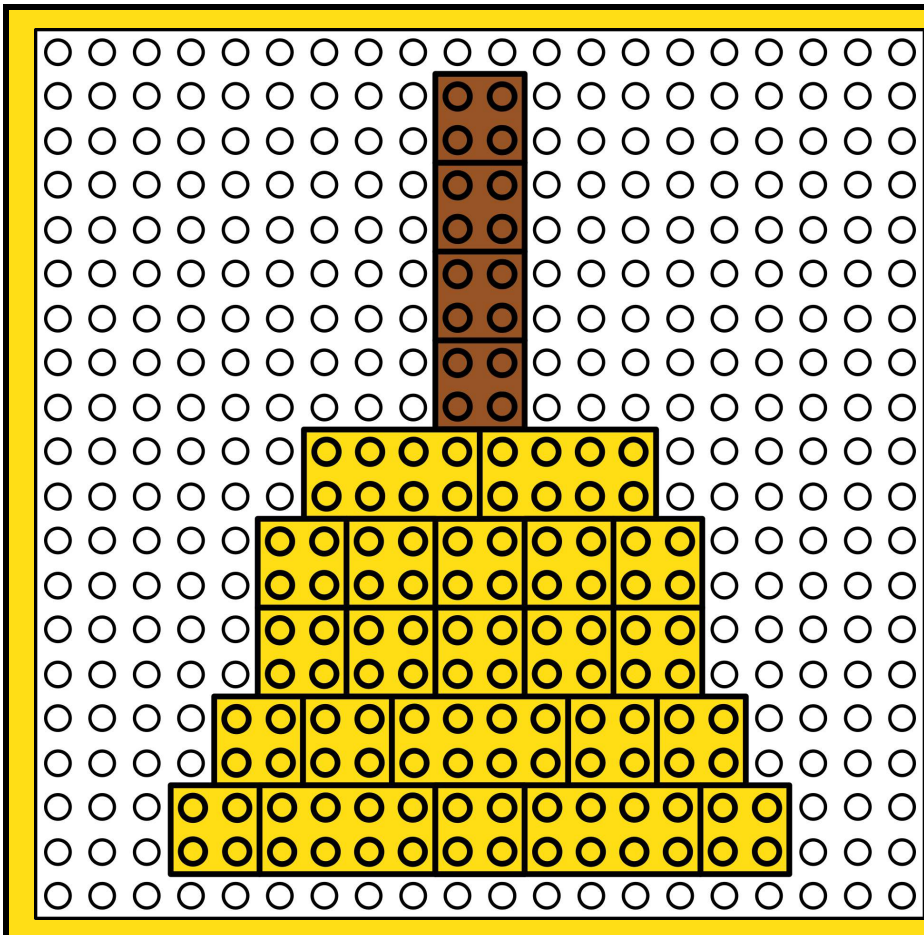
Are you right-handed?
Build with your left hand.

Are you left-handed?
Build with your right hand.



UPSIDE DOWN CHALLENGE

Your challenge is to build an upside down ghost. Make sure you keep the template ride-side up.



MUSIC CHALLENGE



Play your favorite song.
Your challenge is to build the
witch's broom
before the song is over.

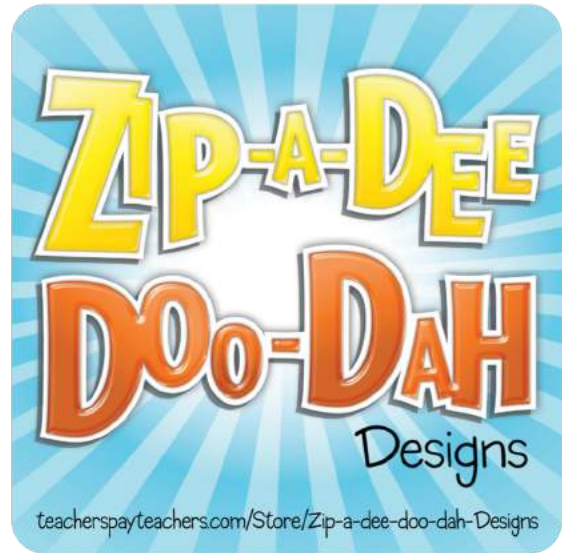
TEAMWORK CHALLENGE



Find a partner. Roll a dice. Add that
many bricks to the board. Then it's
your partner's turn. Continue until
the design is completed.

CLIP ART CREDIT PAGE

Credit is given to the following:



<http://www.teacherspayteachers.com/Store/Zip-a-dee-doo-dah-Designs>

