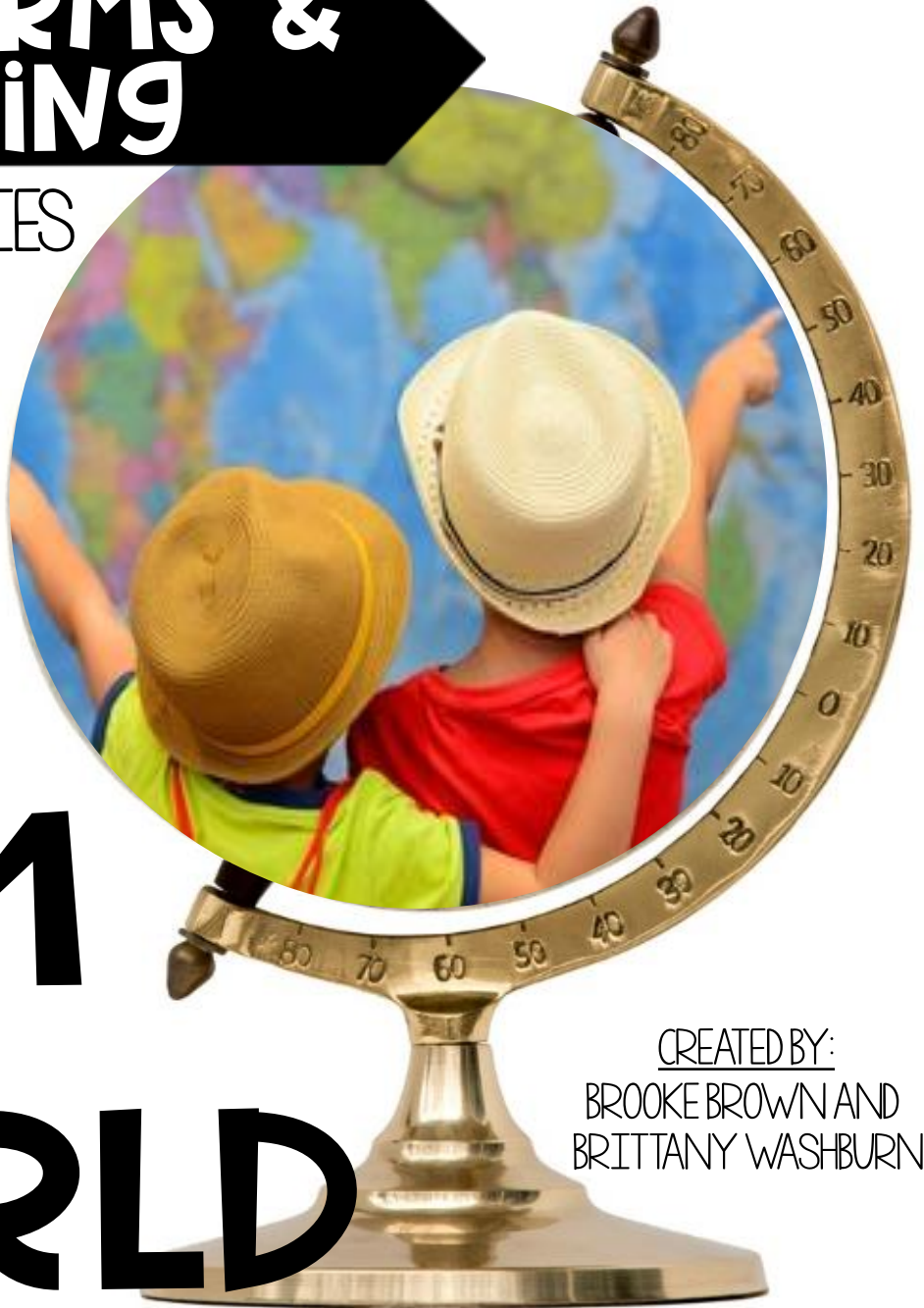


LANDFORMS & MAPPING

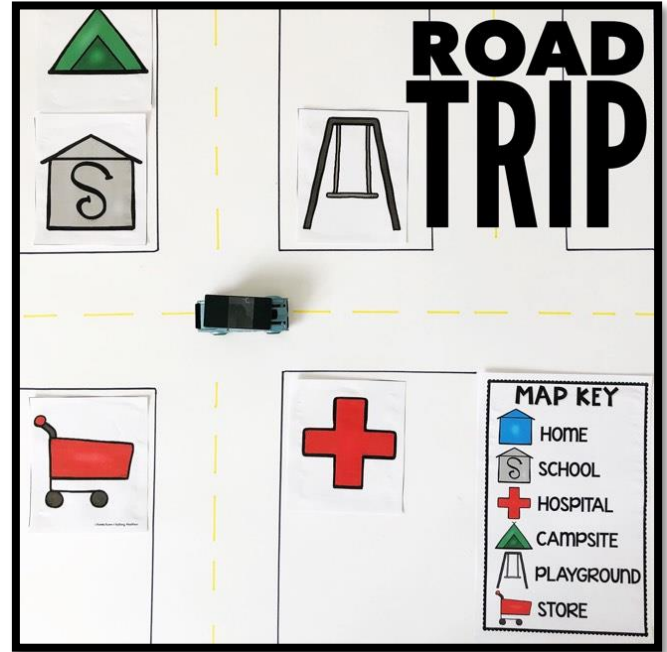
DIGITAL ACTIVITIES
AND HANDS ON
engineering



STEM *and my* WORLD

CREATED BY:
BROOKE BROWN AND
BRITTANY WASHBURN

4 STEM CHALLENGES



INSTRUCTIONS

ME ON THE MAP

Can you use pattern blocks to build fences around you to show where you live?

YOUR FENCES MUST:

- Include your city, state, country, and continent
- Have a different color for each piece

YOU MAY:

- Me on the map
- 20 triangular pattern blocks
- 20 rhombus pattern blocks
- 20 square pattern blocks

CRAFTY COMPASS

Can you create a working compass?

YOUR COMPASS MUST:

- Make a paperclip point to the NORTH

YOU MAY USE:

- 1 clear cup
- 1 paper clip
- Small piece of Styrofoam

ROAD TRIP

Can you create a map and use magnets to push a car to different locations on the map?

YOUR MAP MUST:

- Include 6 symbols for locations
- Include a compass rose

YOU MAY:

- 1 poster board
- 6 symbols
- 1 map key
- 1 compass
- 1 toy car
- 2 magnets

LANDFORM CONSTRUCTION

Can you create models of landforms and bodies of water?

YOU MAY USE:

- 1 paper plate
- Playdough, modeling clay, or air-dry clay

VOCABULARY

WORDS TO KNOW: COMPASS

a device with a magnetized pointer that always points to the North

WORDS TO KNOW: CARDINAL DIRECTIONS

the four main points on a compass: North (N), South (S), East (E), and West (W)

WORDS TO KNOW: LANDFORM

a naturally formed feature on the Earth's surface

WORDS TO KNOW: SCULPTURE

a three-dimensional form, usually created by carving, shaping, or molding

WORDS TO KNOW: MAGNETIC FIELD

the space around a magnet

WORDS TO KNOW: MAP

a picture of an area of land or sea

WORDS TO KNOW: LOCAL

nearby

WORDS TO KNOW: MAP KEY

a chart that explains what symbols on a map mean

WORDS TO KNOW: COMPASS ROSE

a symbol that shows the cardinal directions (north, south, east, and west) on a map

WORDS TO KNOW: REPEL

to push away by using magnetic forces with like poles

WORDS TO KNOW: ATTRACT

to bring together by using magnetic forces with opposite poles

WORDS TO KNOW: RESIDENT

a person who lives somewhere for a long period of time

WORDS TO KNOW: CONTINENT

one of the large land areas in the world

CRAFTY COMPASS

Name: _____

What happens to the paperclip when you float it in the water?

HOW TO MAKE A COMPASS

1) Fill the cup with water.

2) Place the paperclip in the water.

3) Watch the paperclip float.

ROAD TRIP

Name: _____

What happens to the car when the magnets ATTRACT?

What happens to the car when the magnets REPEL?

ME ON THE MAP

Name: _____

What is the name of your CITY?

What makes your CITY special?

WHERE I LIVE

Draw a picture of the STATE where you live. Draw a STAR (★) to show the location of your CITY.

LANDFORM CONSTRUCTION

Name: _____

Draw and color each landform or body of water.

MOUNTAIN	PLAIN	HILL
PLATEAU	RIVER	LAKE
VOLCANO		

LANDFORM CONSTRUCTION

Examples of LANDFORMS

Examples of BODIES OF WATER

ROAD TRIP

Where are some places that you might need a map?

How are maps useful?

What are some features that most maps include?

What are some symbols that you might see on maps? What do they mean?

CRAFTY COMPASS

What are the 4 Cardinal Directions?

Why are cardinal directions important? When are they important?

ME ON THE MAP

Draw a picture of the STATE where you live. Draw a STAR (★) to show the location of your CITY.

LANDFORM CONSTRUCTION

Draw and color each landform or body of water.

MOUNTAIN	PLAIN	HILL
PLATEAU	RIVER	LAKE
VOLCANO		

STUDENT TEMPLATES

DISCUSSION CHARTS

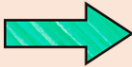
DIGITAL ACTIVITIES



WORKS ON ANY DEVICE WITH GOOGLE SLIDES OR POWERPOINT

Map Skills

Which Direction?

Match the arrows with their Compass Rose direction



Map Skills

Which Direction?

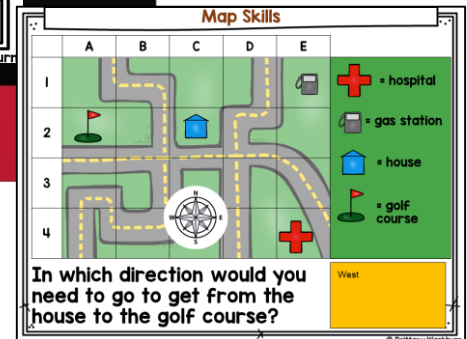
			
			
			

Match the arrows with their Compass Rose direction



DIFFERENTIATED FOR MULTIPLE LEVELS

DIGITAL ACTIVITIES



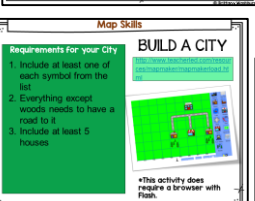
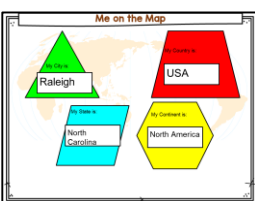
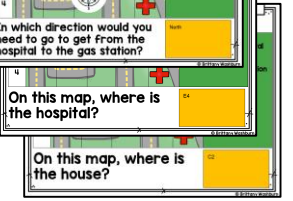
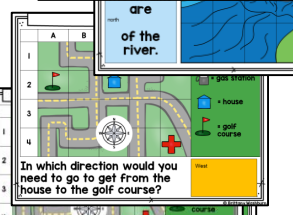
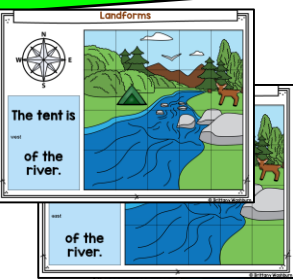
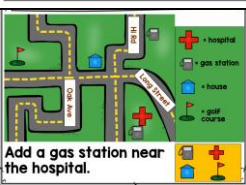
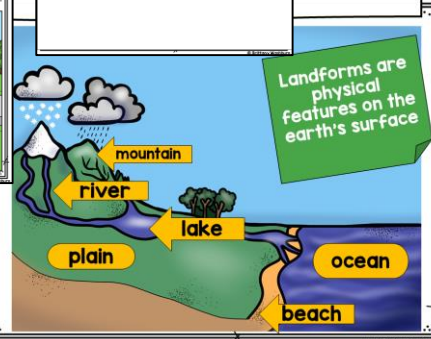
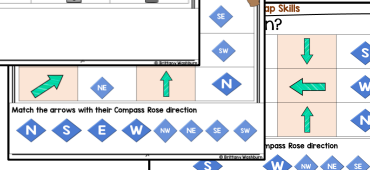
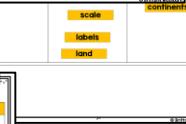
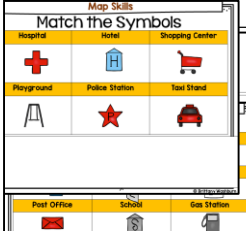
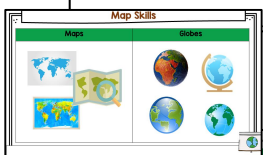
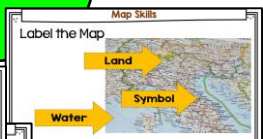
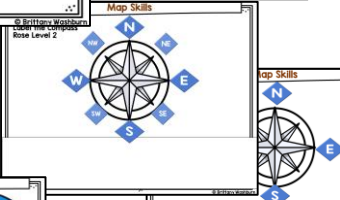
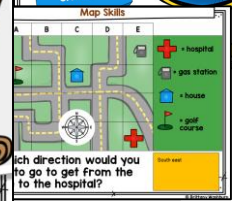
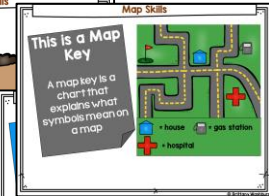
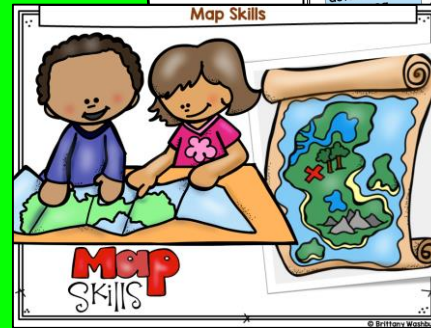
DIGITAL ACTIVITIES



DIGITAL ACTIVITIES

14 TYPES of Digital Activity Slides

✓ MAP SKILLS
✓ LANDFORMS



MAKERTECH EXTENSIONS

MAKERTECH MAT

Make a map of your classroom with symbols and a key.



Make a poster about all the different landforms.



Design a new map for a zoo.



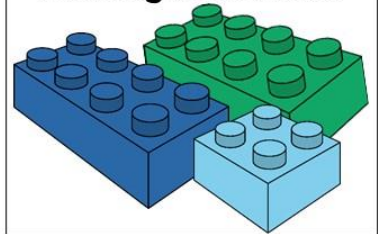
Make a list of all the items in the classroom that are magnetic.



Write cardinal directions for a friend to get from your classroom to the cafeteria.



Make landform models out of building bricks or other building materials.



MAKE IT WITH TECH

Animation



ANIMATE IT

Scratch Jr



CODE IT

Google Draw



DESIGN IT

Pic Collage



LABEL IT

iMovie



FILM IT

Apple Notes



DESCRIBE IT

Stopmotion



RECORD IT

Tellagami



TELL IT

Paper



DRAW IT

