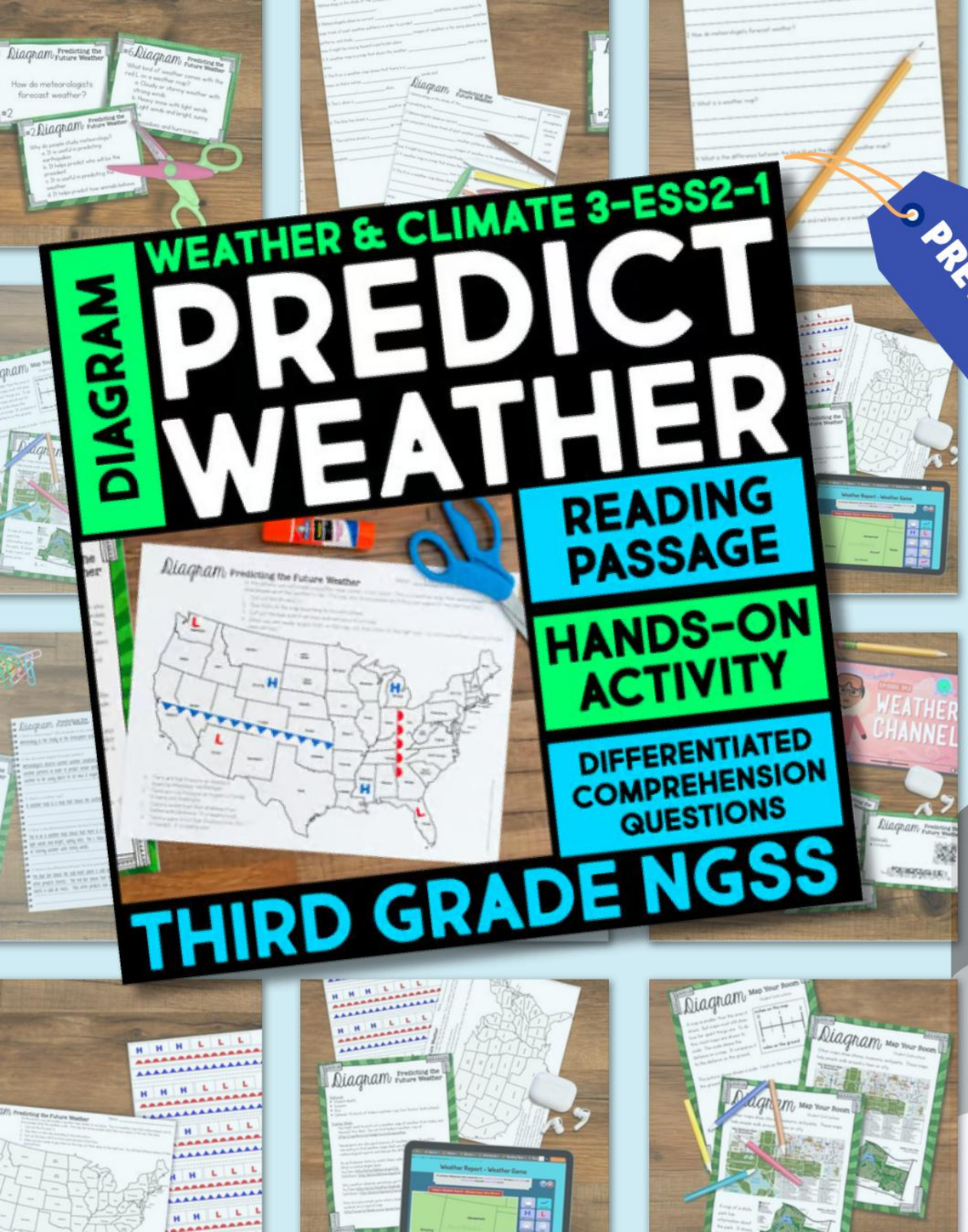


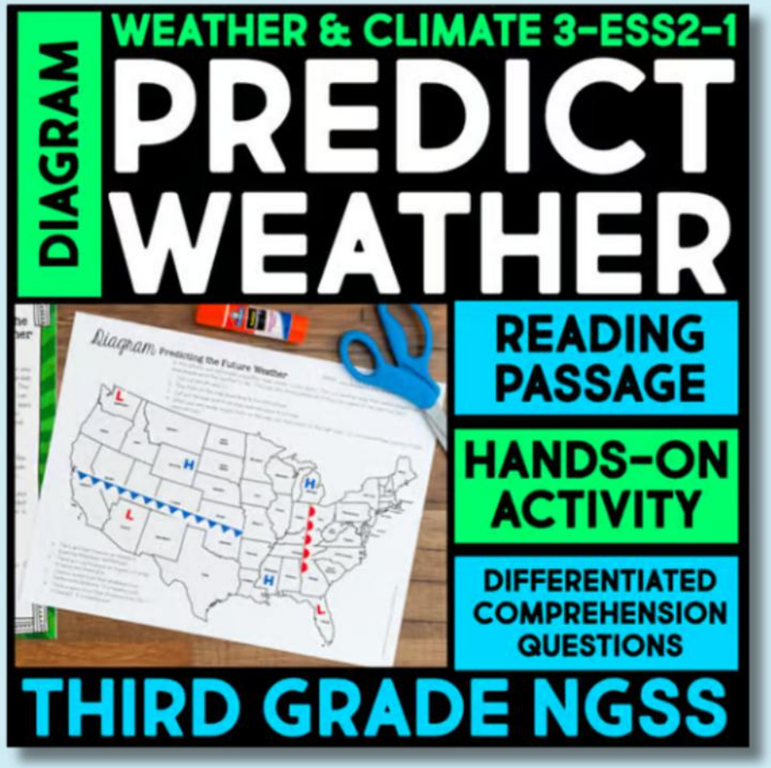
Analyze · Predict · Explain

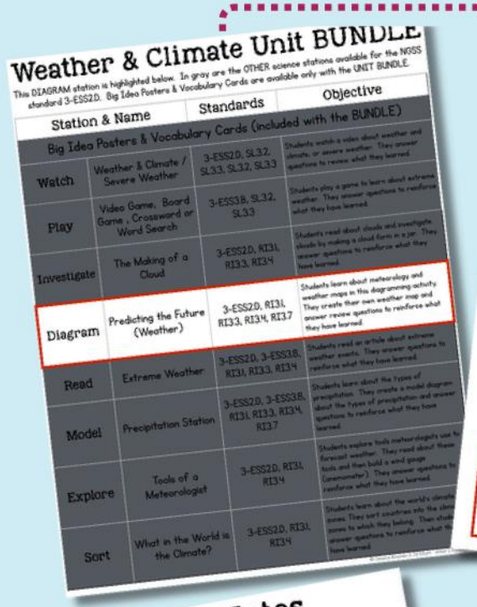
3RD GRADE

DIAGRAM PREDICT WEATHER

KEEP SCROLLING TO SEE WHAT'S INSIDE!

ACTIVITY OVERVIEW




Weather & Climate Unit BUNDLE

This DIAGRAM station is highlighted below. In gray are the OTHER science stations available for the NGSS standard 3-ESS2-1. Big Idea Posters & Vocabulary Cards are available only with the UNIT BUNDLE.

Station & Name		Standards	Objective
Big Idea Posters & Vocabulary Cards (included with the BUNDLE)			
Watch	Weather & Climate / Severe Weather	3-ESS2-D, SL.3.2, SL.3.3, SL.3.2, SL.3.3	Students watch a video about weather and climate, or severe weather. They answer questions to review what they learned.
Play	Video Game, Board Game, Crossword or Word Search	3-ESS3.B, SL.3.2, SL.3.3	Students play a game to learn about extreme weather. They answer questions to reinforce what they have learned.
Investigate	The Making of a Cloud	3-ESS2-D, RI.3.1, RI.3.3, RI.3.4	Students read about clouds and investigate clouds by making a cloud form in a jar. They answer questions to reinforce what they have learned.
Diagram	Predicting the Future (Weather)	3-ESS2-D, RI.3.1, RI.3.3, RI.3.4, RI.3.7	Students learn about meteorology and weather maps in this diagramming activity. They create their own weather map and answer review questions to reinforce what they have learned.
Read	Extreme Weather	3-ESS2-D, 3-ESS3.B, RI.3.1, RI.3.3, RI.3.4	Students read an article about extreme weather events. They answer questions to reinforce what they have learned.
Model	Precipitation Station	3-ESS2-D, 3-ESS3.B, RI.3.1, RI.3.3, RI.3.4, RI.3.7	Students learn about the types of precipitation. They create a model diagram about the types of precipitation and answer questions to reinforce what they have learned.
Explore	Tools of a Meteorologist	3-ESS2-D, RI.3.1, RI.3.4	Students explore tools meteorologists use to forecast weather. They read about these tools and then build a wind gauge (anemometer). They answer questions to reinforce what they have learned.
Sort	What in the World is the Climate?	3-ESS2-D, RI.3.1, RI.3.4	Students learn about the world's climate zones. They sort countries into the climate zones to which they belong. Then they answer questions to reinforce what they have learned.


Science Stations Overview

This is a general overview of all science stations in each UNIT BUNDLE.

Watch a Video
At this station, students will watch a video relevant to the topic and answer questions. You have the option of using the included worksheet with the questions or using the task cards and having students respond in their science journals.

Play a Game
Students play a game and answer questions about the experience. You have the option of using the included worksheet with the questions or using the task cards and having students respond in their science journals.

Investigate
Students use materials to investigate the science topic by following directions and recording results. Students answer questions about the investigation.

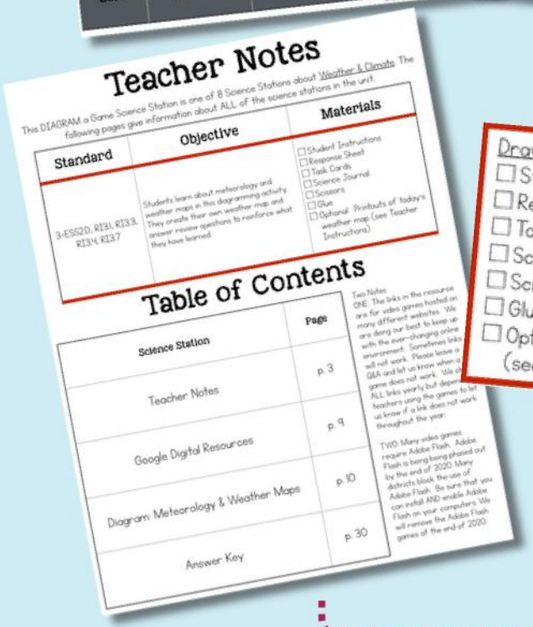
Draw a Diagram
Students draw and label a diagram specific to certain requirements. Students then explain how their diagram meets the requirements.

Read a Passage
Students read a short passage about the topic and answer questions about the information in the passage. You have the option of using the included worksheet with the questions or using the task cards and having students respond in their science journals.

Create a Model
Students use materials to illustrate the science concept and answer questions. You have the option of using the included worksheet with the questions or using the task cards and having students respond in their science journals.

Explore
Students create a sample and manipulate it using the new science concepts they have learned. Students answer questions based on the effects.

Sort
Students sort cards into groups or put them in a specific order. Students record the sort and then describe their reasoning.


Teacher Notes

This DIAGRAM a Game Science Station is one of 8 Science Stations about Weather & Climate. The following pages give information about ALL of the science stations in the unit.

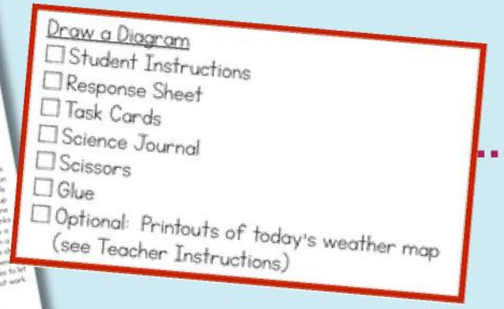
Standard	Objective	Materials
3-ESS2-D, RI.3.1, RI.3.3, RI.3.4, RI.3.7	Students learn about meteorology and weather maps in this diagramming activity. They create their own weather map and answer review questions to reinforce what they have learned.	☐ Student Instructions ☐ Response Sheet ☐ Task Cards ☐ Science Journal ☐ Scissors ☐ Glue ☐ Optional: Printouts of today's weather map (see Teacher Instructions)

Table of Contents

Science Station	Page
Teacher Notes	p. 3
Google Digital Resources	p. 9
Diagram: Meteorology & Weather Maps	p. 10
Answer Key	p. 30

Tech Notes
ONE: The links in the resource are for video games hosted on many different websites. We are doing our best to keep up with the ever-changing online environment. Sometimes links will not work. Please leave a Q&A and let us know when a game does not work. We do ALL links yearly but depending on teachers using the games to let us know if a link does not work throughout the year.

TWO: Many video games require Adobe Flash. Adobe Flash is being being phased out by the end of 2020. Many districts block the use of Adobe Flash. Be sure that you can install AND enable Adobe Flash on your computers. We will remove the Adobe Flash games at the end of 2020.


Draw a Diagram
- ☐ Student Instructions
- ☐ Response Sheet
- ☐ Task Cards
- ☐ Science Journal
- ☐ Scissors
- ☐ Glue
- ☐ Optional: Printouts of today's weather map (see Teacher Instructions)

Unit Bundle

Science Stations Overview

Materials Checklist

Table of Contents / Teacher's Notes

WHAT'S INCLUDED

DIAGRAM SCIENCE STATION

- **Teacher Notes**
- **Student Reading Text**
- **Student Instructions**
- **Weather Map Cut-and-Paste Activity**
- **Activity Sheets** & Response Pages
- **Differentiated Questions**
- **Answer Key**
- **Google Forms™**
- **Google Slides™**

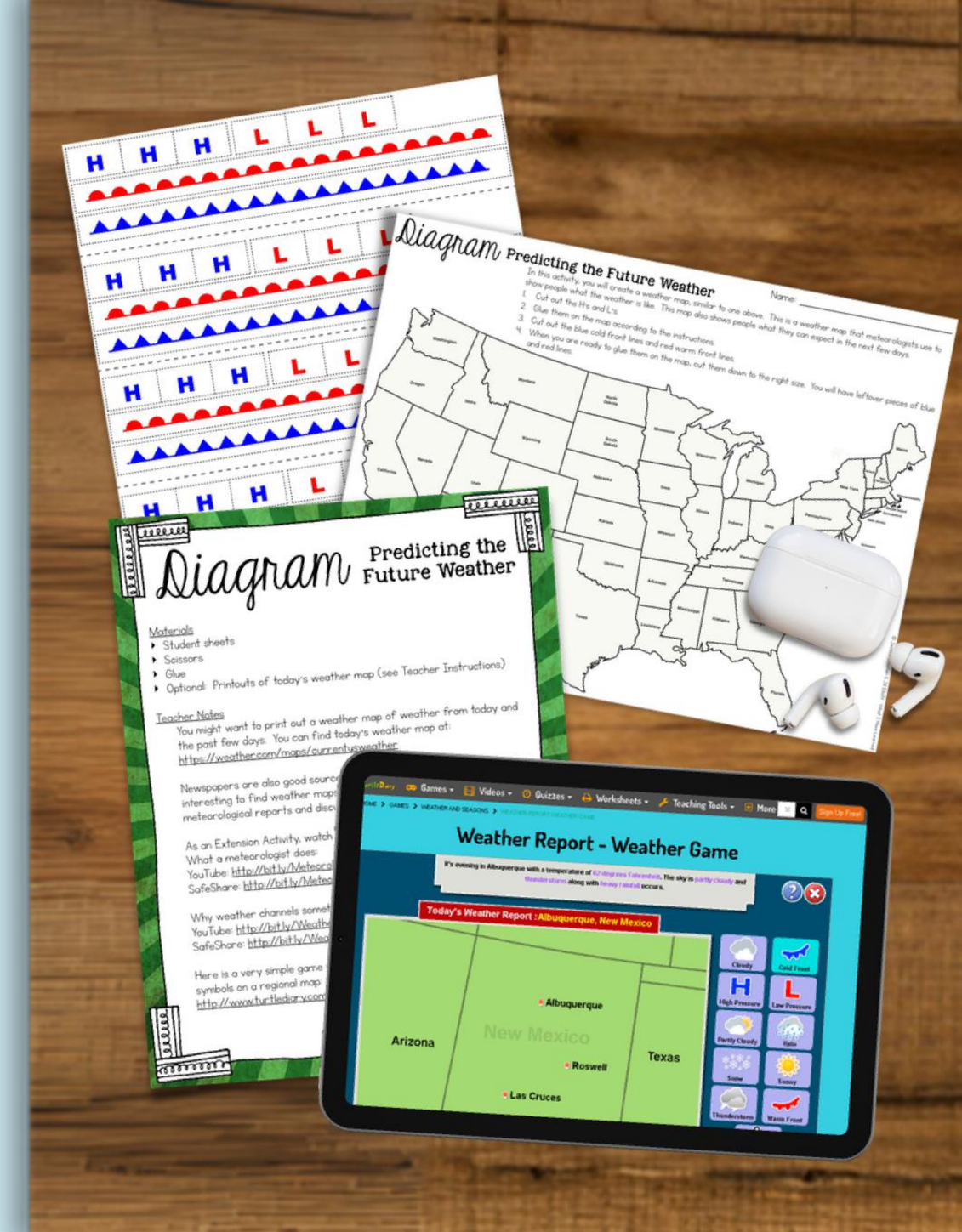
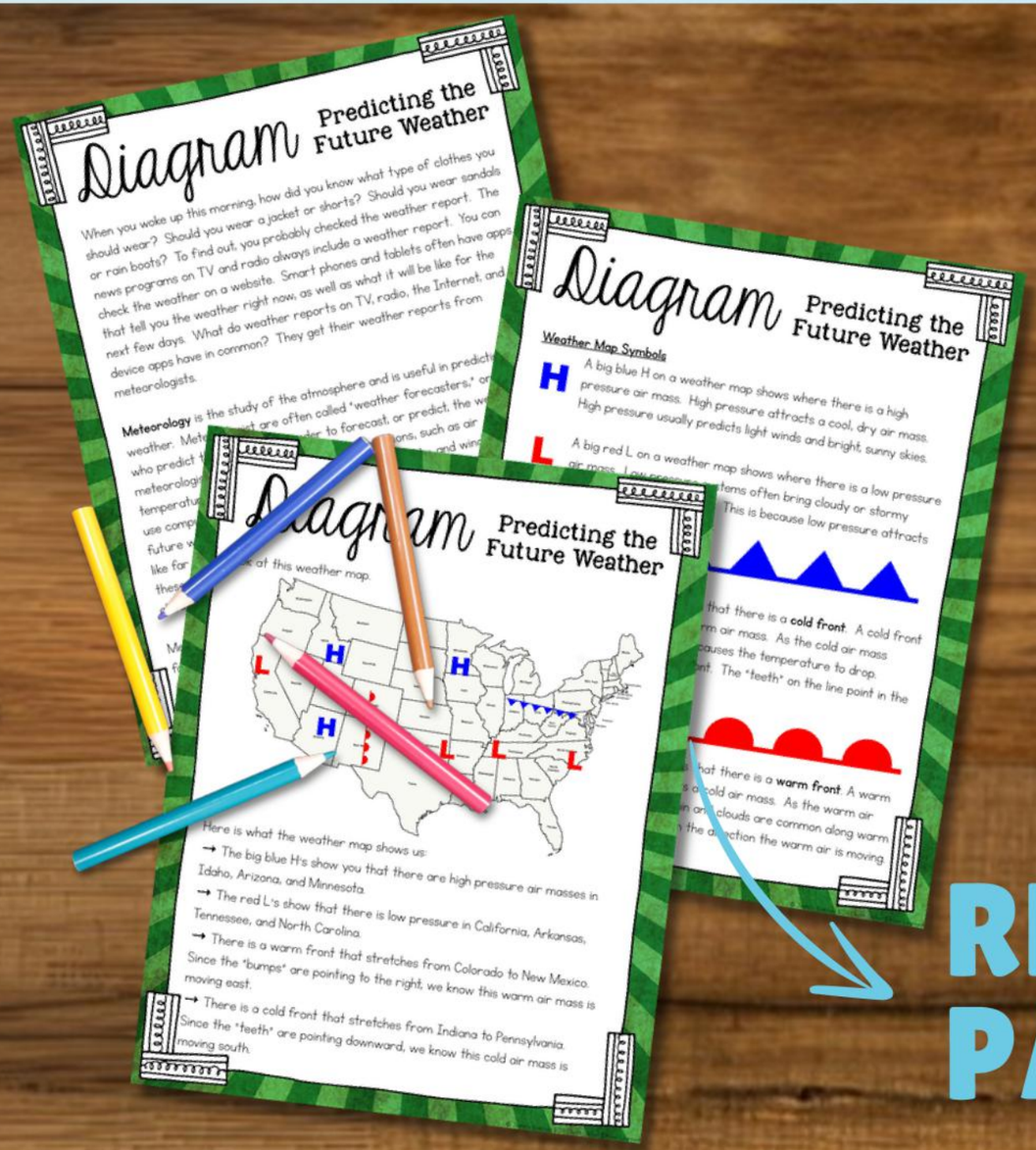
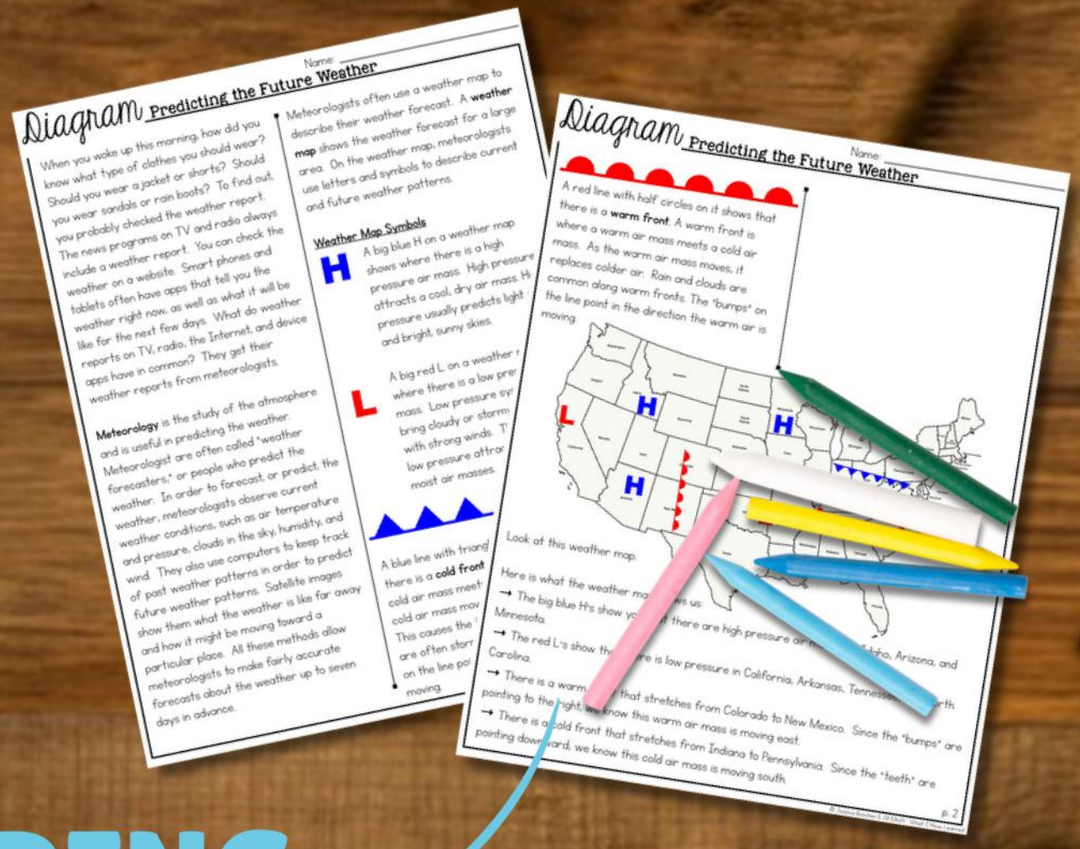


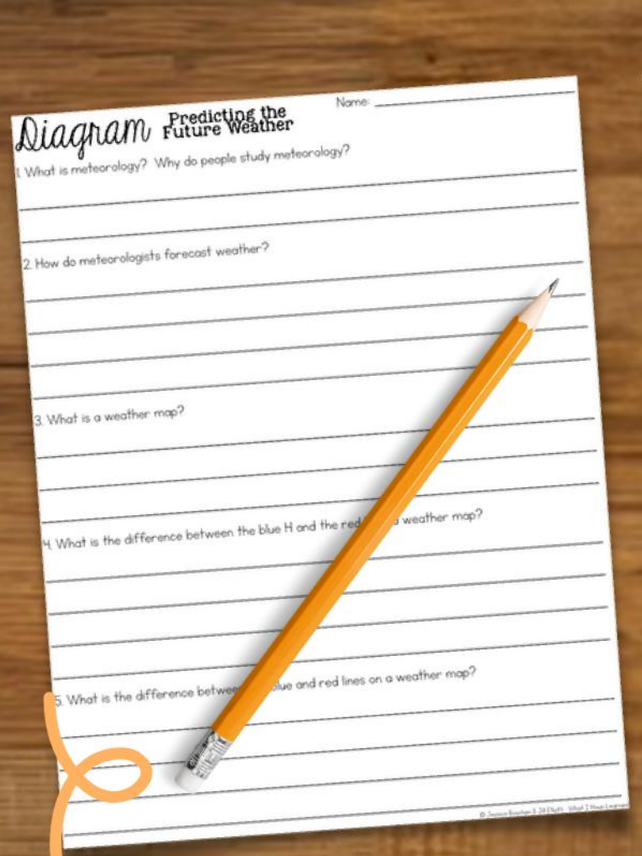
DIAGRAM: READING PASSAGE



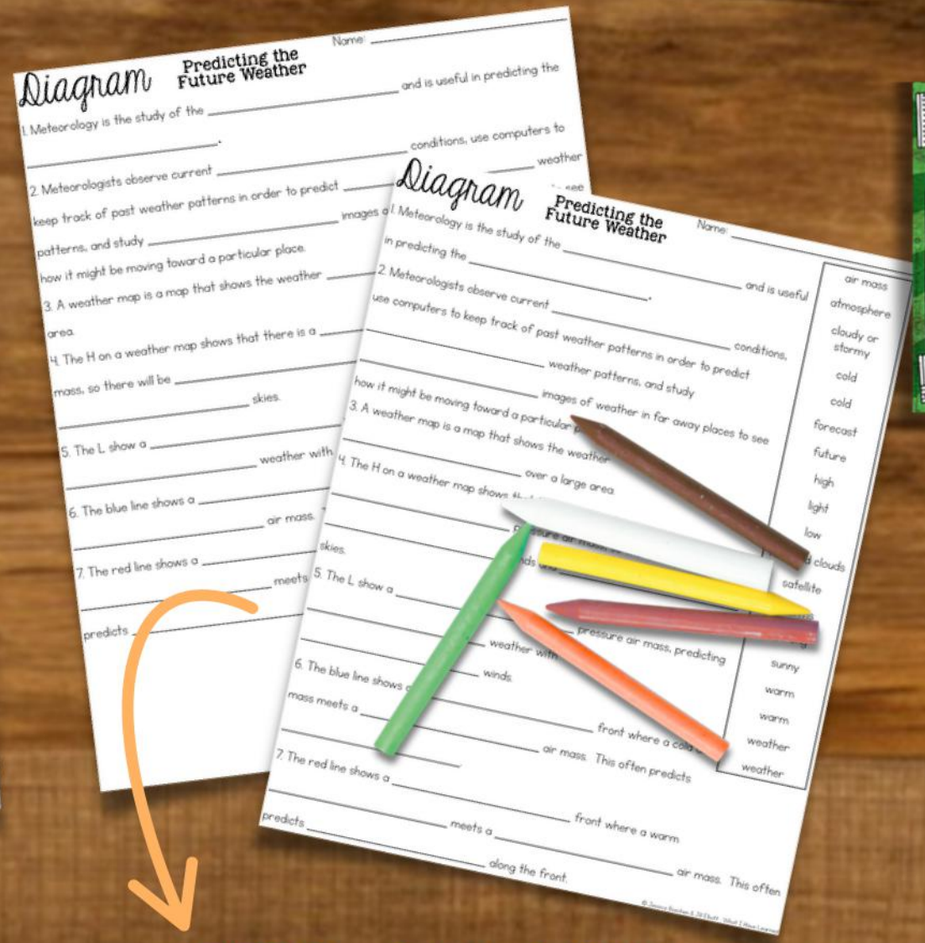


READING PASSAGE

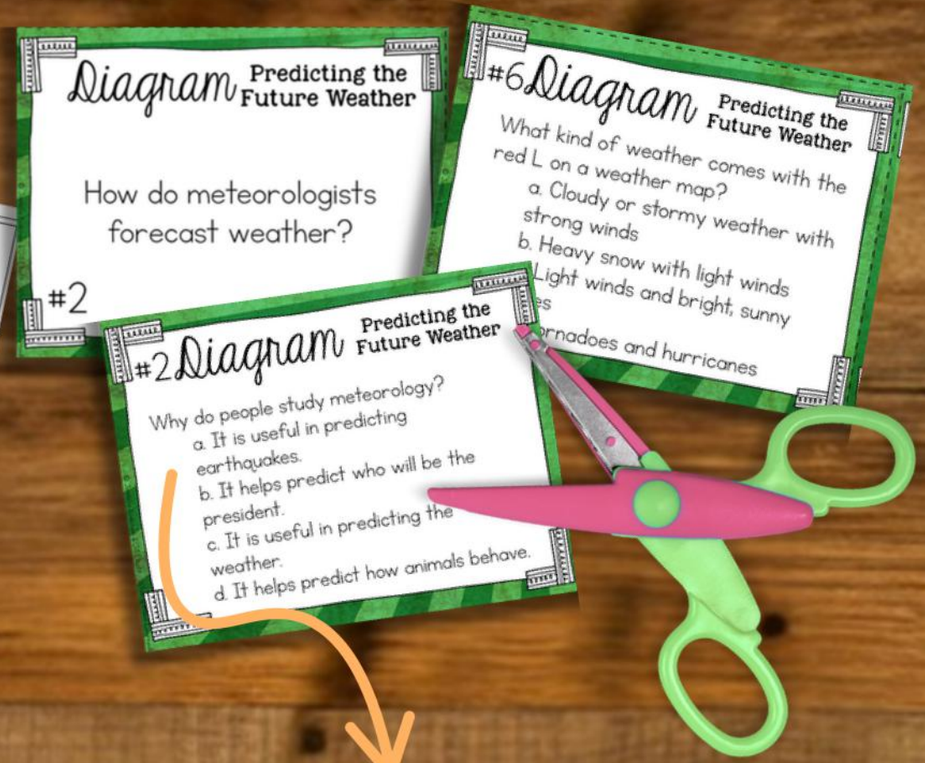
DIFFERENTIATED QUESTIONS



SHORT ANSWER



FILL-IN-THE BLANK



TASK CARDS: SHORT ANSWER & MULTIPLE CHOICE

ENGAGING ACTIVITY

Diagram Predicting the Future Weather

Materials
- Student sheets
- Scissors
- Glue
- Optional: Printouts of today's weather map (see Teacher Instructions)

Teacher Notes

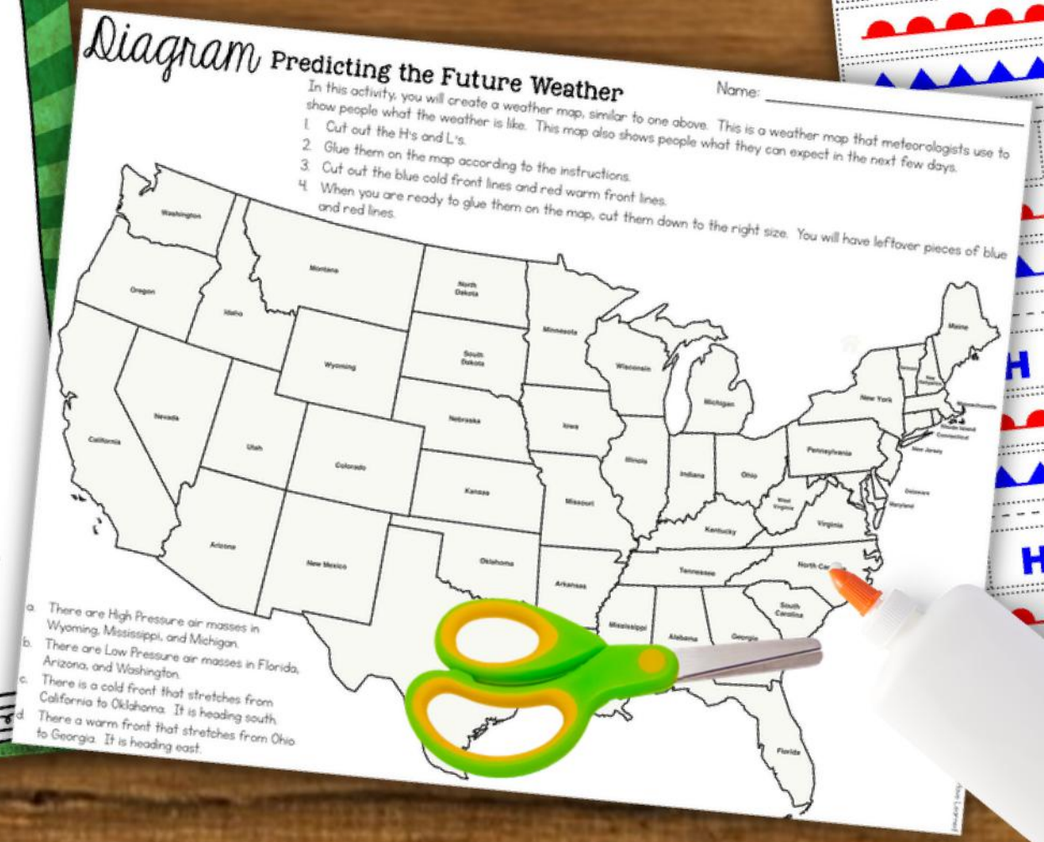
You might want to print out a weather map of weather from today and the past few days. You can find today's weather map at:
https://weather.com/maps/

Newspapers are also good sources of weather maps. It could be interesting to find weather maps that use different sources for their meteorological reports and discuss the differences you see.

As an Extension Activity, watch these videos:
What a meteorologist does:
YouTube: http://bit.l
SafeShare: http://bi

Why weather channels sometimes get it wrong:
YouTube: http://bit
SafeShare: http://bit.ly

Here is a very simple game where students can insert weather map symbols on a regional map:
http://www.turtlediary.com/



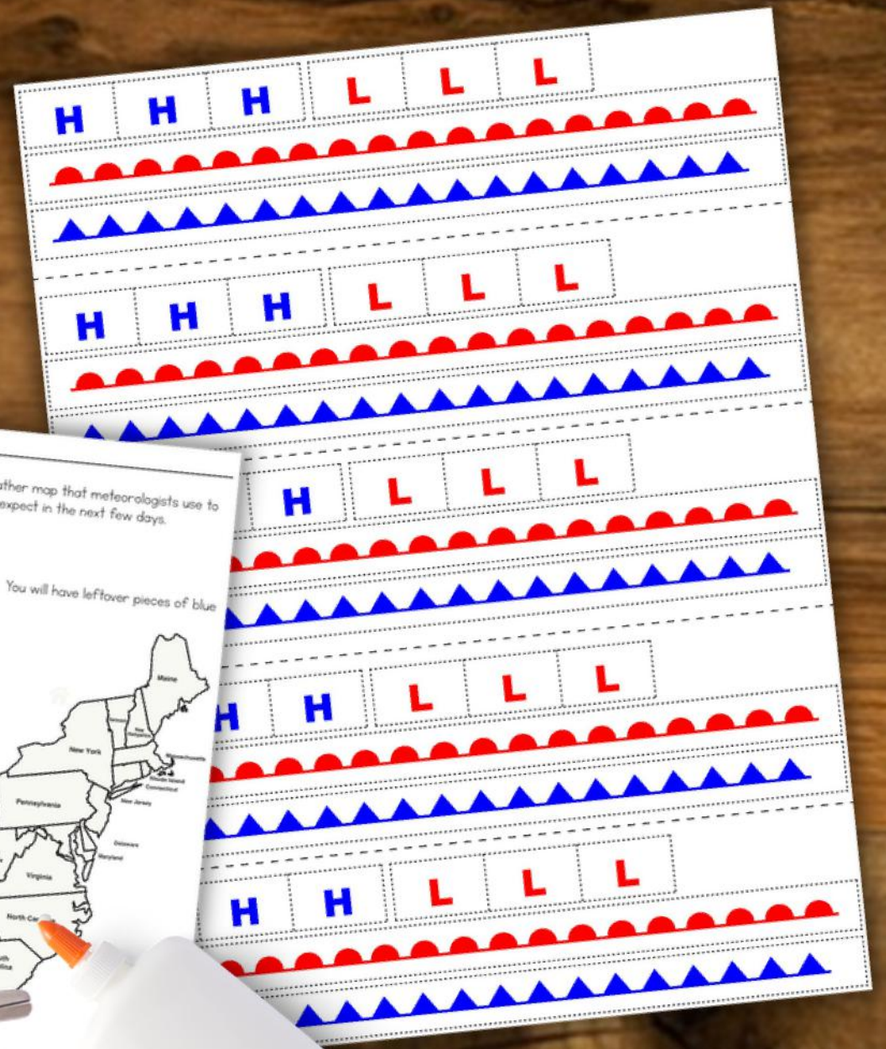


Diagram Predicting the Future Weather

Weather Map Symbols

H A big blue H on a weather map shows where there is a high pressure air mass. High pressure attracts a cool, dry air mass. High pressure usually predicts light winds and bright, sunny skies.

L A big red L on a weather map shows where there is a low pressure air mass. Low pressure systems often bring cloudy or stormy weather with strong winds. This is because low pressure attracts warm and moist air masses.



A blue line with t
is where a cold
moves, it repl
There are o
direction th



A red
front
ma
fr

...re is a **cold front**. A cold front ...the cold air mass ...drop.

Diagram Predicting the Future Weather

Look at this weather map.



Here is what the weather map shows us:

→ The big blue H's show you that there are high pressure air masses in Idaho, Arizona, and Minnesota.

→ The red L's show that there is low pressure in California, Arkansas, Tennessee, and North Carolina.

→ There is a warm front that stretches from Colorado to New Mexico. Since the "bumps" are pointing to the right, we know this warm air mass is moving east.

→ There is a cold front that stretches from Indiana to Pennsylvania. Since the "teeth" are pointing downward, we know this cold air mass is moving south.

Diagram Predicting the Future Weather

Name: _____

1. What is meteorology? Why do people study meteorology?

Meteorology is the study of the atmosphere and is useful in predicting the weather.

2. How do meteorologists forecast weather?

Meteorologists observe current weather conditions, use computers to keep track of past weather patterns in order to predict future weather patterns, and study satellite images of weather in far away places to see how it might be moving toward a particular place.

3. What is a weather map?

A weather map is a map that shows the weather forecast over a large area.

4. What is the difference between the blue H and the red L on a weather map?

The H on a weather map shows that there is a high pressure air mass, so there will be light winds and bright, sunny skies. The L show a low pressure air mass, predicting cloudy or stormy weather with strong winds.

5. What is the difference between the blue and red lines on a weather map?

The blue line shows the cold front where a cold air mass meets a warm air mass. This often predicts storms. The red line shows that the warm front where a warm air mass meets a cold air mass. This often predicts rain and clouds along the front.

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Diagram Predicting the Future Weath

How do meteorologists forecast weather?

#2

#2 Diagram Predicting th Future Weath

Why do people study meteorology?

a. It is useful in predicting earthquakes.
b. It helps predict who will be the president.
c. It is useful in predicting the weather.
d. It helps predict how animals behave.

Diagram Predicting the Future Weather

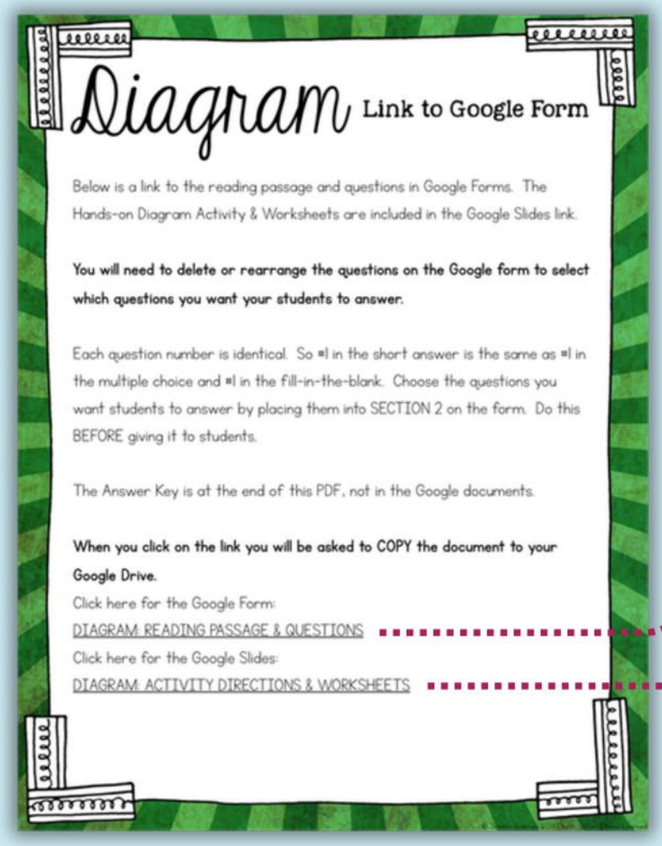
Extension

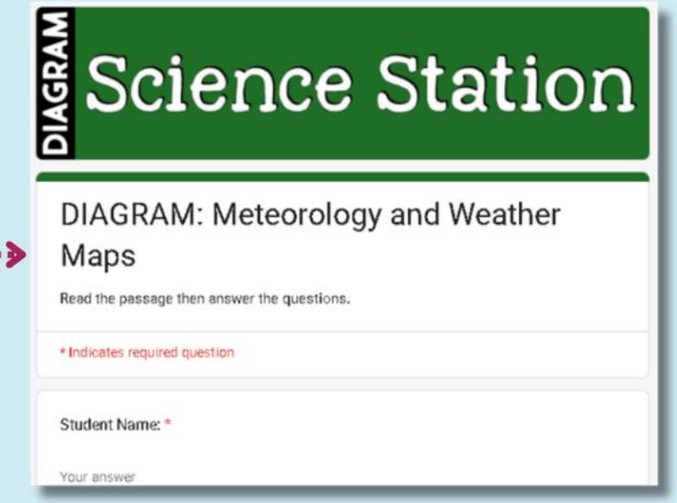
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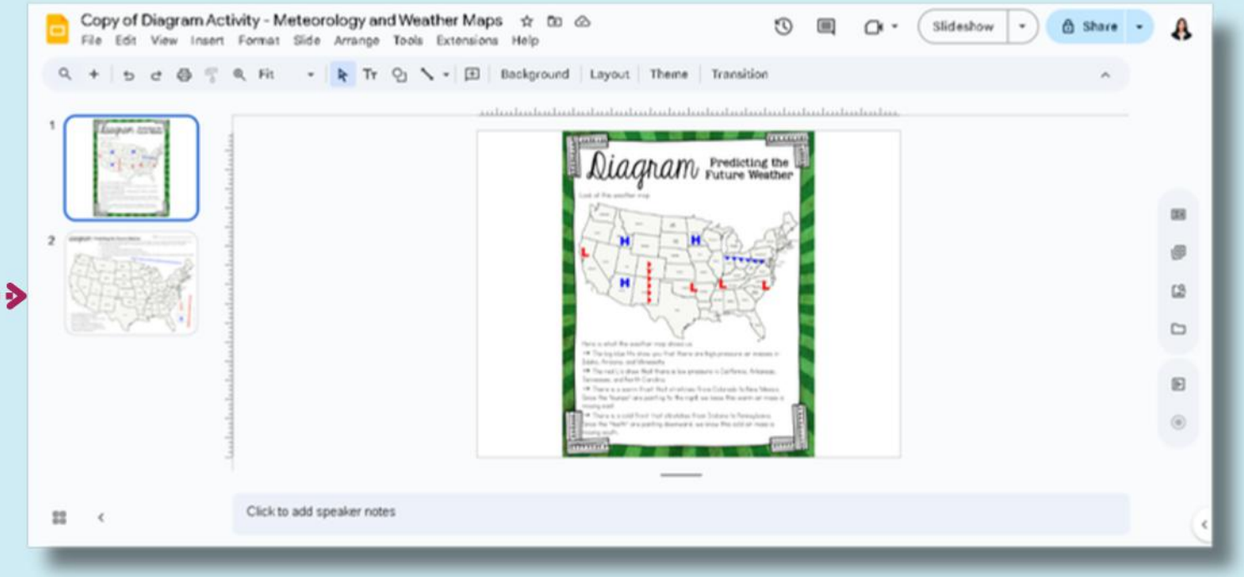
- Computer

You [redacted] 2b

DIGITAL VERSIONS







DIGITAL VERSIONS

- ✔ Google Sheet with Activity & Directions
- ✔ Google Form with Reading & Questions

Answer keys provided

YOU WILL LOVE THIS BECAUSE



Students Learn by Doing

Building and labeling weather maps helps students visualize abstract meteorological concepts.



Strong NGSS Alignment

Directly supports 3-ESS2-2 by teaching students how weather data is used to make predictions.



Flexible & Differentiated

Whether using journals, worksheets, or digital tools, this station meets students at their level and supports real engagement.

TEACHERS LOVE IT!

My students felt like they were real meteorologists with this task. They were able to review their skills on the different fronts and pressure systems while sharing what they learned with their peers.

Erin G.



The kids absolutely enjoyed this resource. This is a great supplemental activity I used with the social studies program we use at our school. I can't wait to use it again for this upcoming school year!

Third Times the Charm



My passion is making learning accessible to all students.
I love scaffolding learning, breaking down the concepts and building them up so that students can see the connections.
I love figuring out the small components that build up to the big ideas and helping students see it all.



teach MATH | teach SCIENCE | teach READING | teach WRITING

What I have LEARNED