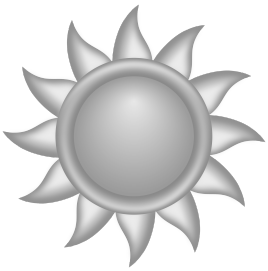
3rd Grade
Science Journal

Earth and Space Systems:
Climate, Weather, and Seasons



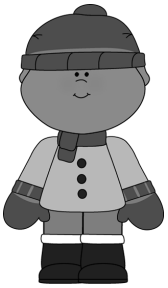






The ASSIST Approach

Name: _____



Why did the kid choose to wear the clothes he has on?

How do you know when to wear clothes that will keep you warm and when to wear shorts and short sleeves?

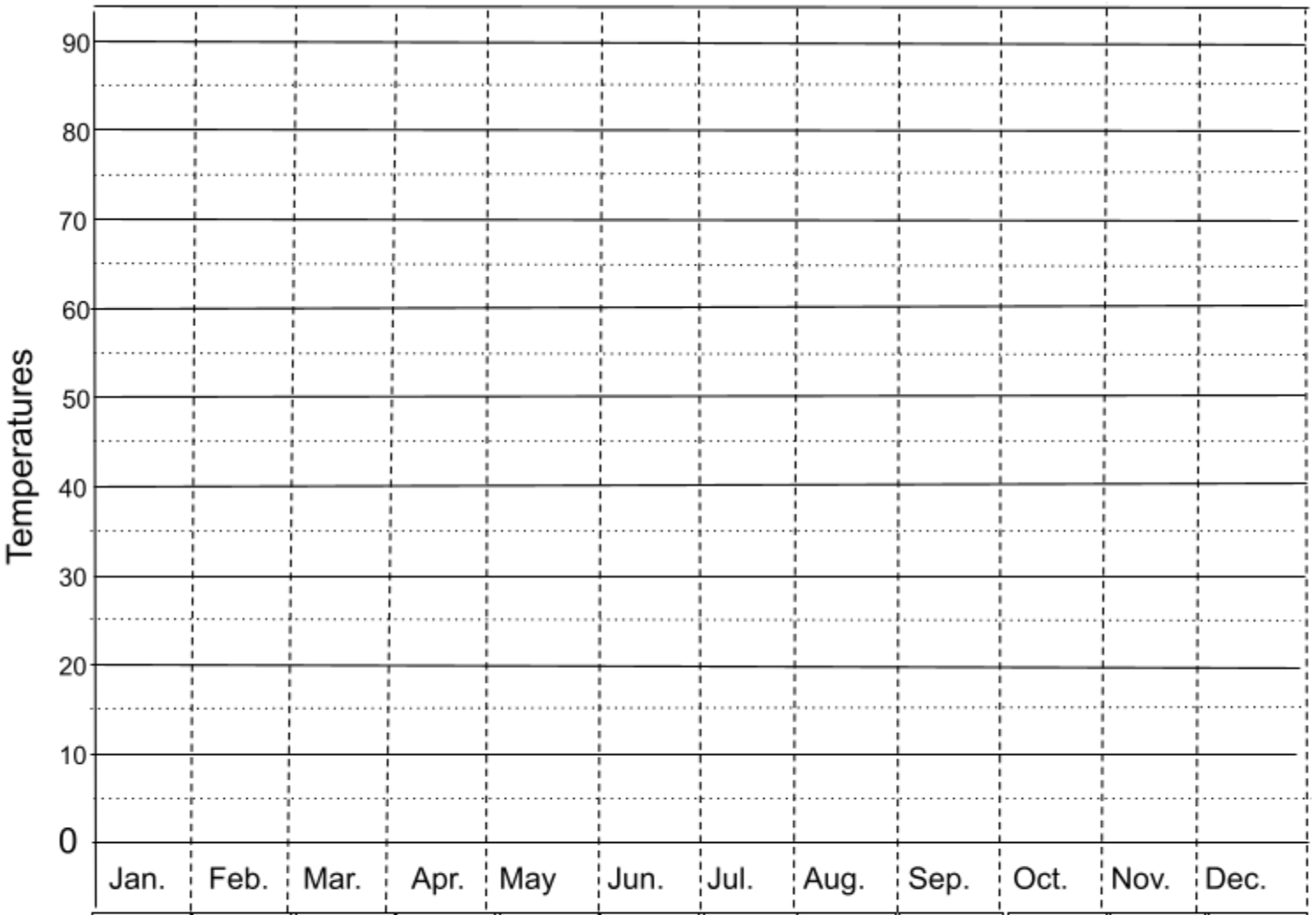
What questions do you have about the weather?

What is the “Big Idea” for the unit?





Graph the Average Monthly Temperature of San Diego, California

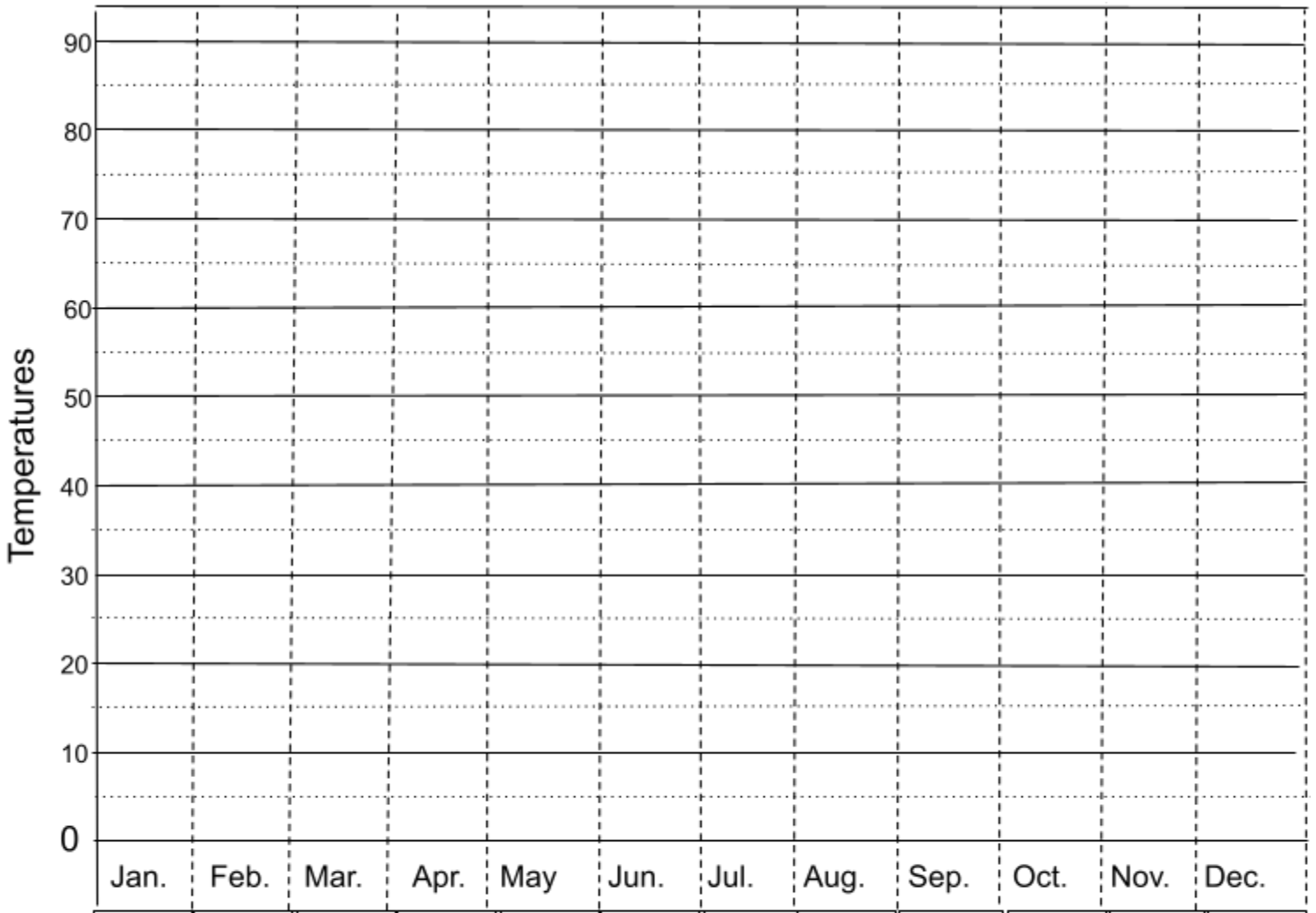


Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation

Do you think the monthly temperatures and precipitation in Waterloo, Iowa will be the same as San Diego, California? Explain why?

Mathematics
CCSS.MATH.
.3.MD.B.3

Graph the Average Monthly Temperature of Waterloo, Iowa



Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation	Inches of Precipitation

Why do you think the temperatures and amounts of precipitation are different?

Mathematics
CCSS.MATH.
.3.MD.B.3





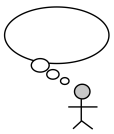
Look at the pictures of San Diego on December 13, 1967. Do you think it will snow in San Diego on December 13th this year? Explain.





Look at the pictures of Waterloo, Iowa on December 13, 1967. Do you think it will snow in Waterloo on December 13th this year? Explain.





CLAIM: I support the claim that it

will ☐ will not ☐
snow in San Diego, California this year on December 13th.



Evidence: The evidence to support my claim is: **Remember evidence is the information that supports your claim.*

I think it will ☐ will not ☐ snow in San Diego because

Think about what you know about what the weather would likely be like in San Diego, California using your prior knowledge and information you learned about when you made the bar graphs.

Reasoning: **Remember reasoning is thinking of all the reasons why an idea might be right or wrong.*

How will you figure out if this idea is right?	Why might this idea be wrong?
_____ _____ _____	_____ _____ _____





Hello, my name is Maria Gonzalez. I am a climate scientist who has studied weather patterns around the world for over 9 years.

- I graduated with the top grades in my class and my research won an award for the best weather and climate project at my university.
- Any time I think my research is important I share it with other scientists so they can decide if it is good. So far the top scientists from all over the world have agreed with my research.
- It is so important to share information with people curious about science so they can build on our work and make the world a better place.

Do you think this person is trustworthy? Why or why not?

_____

_____

_____

_____

_____

Understanding the Check With Experts

Question: *Do you think it will snow in San Diego on December 13th this year?*

Information from the text: I don't think it will snow because that day was an example of strange weather, not a change in climate.

How does this information support or reject your claim?

Information from the text: I don't think it will snow because that day was an example of strange weather, not a change in climate.

How does this information support or reject your claim?

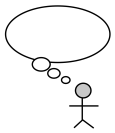
Information from the text: December is in the winter season, but in San Diego it usually does not snow in the winter.

What is your evidence?



Weather	Climate	Seasons

Below you will make your new claim and use the vocabulary words above.



My new claim is: I think that it _____ (will or will not) snow in San Diego next winter, because the _____ (weather / climate / season) might have been strange on one day but the _____ (weather / climate / season) did not change. The winter _____ (weather / climate / season) in San Diego is different than most places because it usually does not snow.





Last December 25th in Waterloo, Iowa (a time when it is usually cold) a family went outside after celebrating Christmas. Oddly, it was so warm the kids decided to jump on the trampoline without any coats, hats, or mittens. When they came inside their dad said:

"This one warm day of weather must mean the climate has changed."

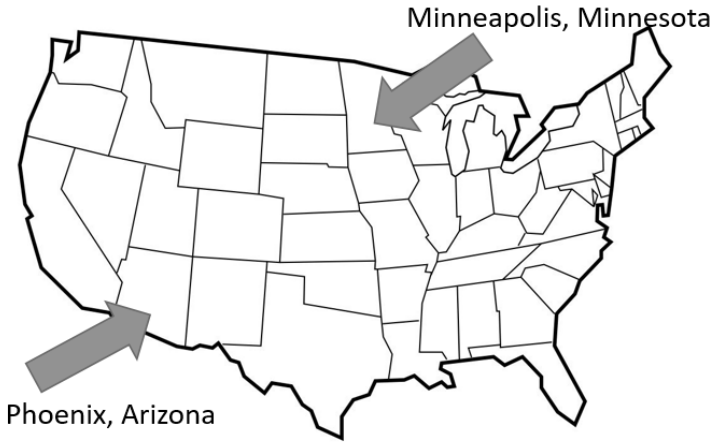
Is the dad right?

Idea #1	Idea #2
Yes, weather and climate are the same thing.	No, weather and climate are different.

I agree with idea ☐ because

I disagree with idea ☐ because

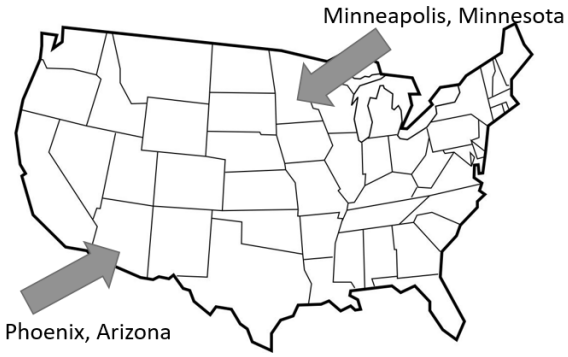
Big Question #2: Do kids wear the same winter clothes in all parts of the United States?



In the space below draw how you think kids dress for school in the winter in Phoenix, Arizona and in Minneapolis, Minnesota.

Phoenix, Arizona	Minneapolis, Minnesota

Science Practices



The average temperature in Minneapolis, Minnesota in January is 20 degrees F.

The average temperature in Minneapolis, Minnesota in July is 4 times hotter than January. What is the average temperature in July?

Work Space

The average temperature in Phoenix, Arizona in July is 100 degrees F.

The average temperature in Phoenix, Arizona in January is 30 degrees F less. What is the average temperature in January?

Work Space

Question: Why is the winter warmer in Phoenix, Arizona than in Minneapolis, Minnesota?

Initial Claim: **Remember a claim is your answer to the question that we are testing.*

I support the claim that it is warmer in Phoenix because

Evidence: **Remember evidence is the information that supports your claim.*

Have you ever been to Phoenix or Minneapolis in the winter? Where do you live? Is it close to either place? If not, look where the two places are and how is your home related to where those places are on the map?

You can use this space to draw out your evidence





Hello, my name is Dr. Marlow Lake. I am a climatologist (that's a scientist who studies weather and climate) who works for NASA.

- I am the leader of a team of scientists who study the Earth's climate.
- When our team makes a discovery we share our information with other scientists from around the world so they can learn from it.
- I write short stories about important topics for kids to learn in school. Who knows, maybe someday you will become a scientist!

Do you think this person is trustworthy? Why or why not?

_____

_____

_____

_____

_____

Understanding the Check With Experts

Question: Why is it warmer in Phoenix, Arizona than Minneapolis, Minnesota in the winter?

Information from the text: The farther an area is from the equator the colder it gets. In areas like the North Pole the climate is very cold.

How does this information support or reject your claim?

Information from the text: Phoenix, Arizona is closer to the equator than Minneapolis, Minnesota so it is warmer in the winter.

How does this information support or reject your claim?

Information from the text: Phoenix, Arizona and Minneapolis, Minnesota are in different climate zones so that is why Phoenix is warmer in the winter.

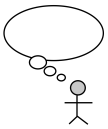
How does this information support or reject your claim?



Now that you have Checked With the Experts use what you have learned to adjust your claim. Please include the following vocabulary words in your drawing and writing.

Equator	Climate Zones	
Arctic	**Temperate**	**Tropical**

Below you will make your new claim and use the vocabulary words above.



My new claim is: I think that it is warmer in Phoenix during the _____ winter because it is closer to the _____ which means it will have warmer _____ than Minneapolis. There are three main _____ on Earth. The _____ zone is far away from the equator so it is cold. The _____ zone is close to the equator so it is war. The _____ zone is in the middle so it is sometimes warm and sometimes cold.



Engineering Challenge



How will you rebuild after the landslide?

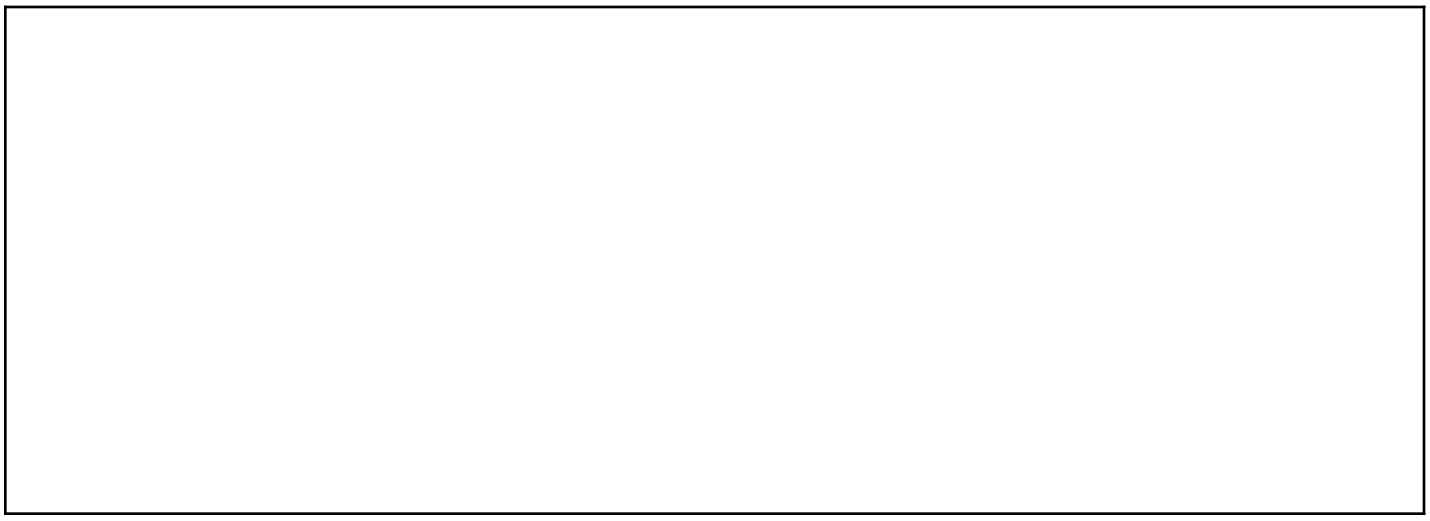


How far away from the hill will you build?

Home 1	
Home 2	

Multimodal Communication

If you plan to write a report or story as your form of communication this page can be used as a rough draft.



_____

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