Name	Date	

## Weather vs. Climate Worksheet

1.	When you woke up this morning, did you look outside to see what the weather was like? People
	often do this so that they know what to wear and what activities they can do that day. What is
	weather?

2. Weather is the daily conditions of the atmosphere. Weather is always changing, and can change in a short period of time. Sunlight, clouds, rain, snow, and temperature work together to create weather. Take a photo of what the weather looked like this morning where you live.

3. The weather patterns you can observe over a long period of time, usually years, are called climate. Scientists keep track of the weather conditions for at least 30 years in a certain area so that they have a record of the climate for that region. How are weather and climate different in terms of time?



4. Since climate describes the weather conditions in a certain region over a long period of time, it describes the average measurements of temperature, wind, rain, snow, and humidity. Wait a minute, what does humidity mean? Humidity is actually the amount of water vapor in the air. It is measured from 0-100%. When the humidity is at 100%, the air feels very wet. Humidity is different from precipitation because it is not liquid droplets as in rain or clouds. Take a photo of the environment that would have the highest humidity.

- 5. We know that weather helps us decide what to wear and what activities we can do each day. But why do we need to know about the climate? Studying climate tells us about the typical weather patterns found in different locations around the world. This can be very helpful when trying to figure out the best time of year to go on vacation to a place that you have never been to before. Let's go on a virtual trip around the world to explore global climate patterns.
- 6. There are five main global climate zones. They start with the hottest temperatures at the equator and move towards the coldest temperatures at the North and South Poles. Let's begin our journey in the tropical rainforests found near the equator. Take a photo of the equator. What type of climate zone is found here?

7. The weather in the tropical climate zone can always be predicted from year to year. It is always hot and humid. Why do you think tropical rainforests have the same hot and humid climate?

- 8. Next, let's move away from the equator and visit the dry climate zone. These areas, which include deserts, have very little rainfall, and any water quickly evaporates into the air. Deserts have very low humidity. Why is this?
- 9. As we move farther away from the equator, we find ourselves in the temperate climate zone. This region has moderate temperatures, which are not too hot or too cold. Areas in the temperate climate zone typically have four seasons: spring, summer, fall, and winter. Take a photo of the environment that represents the temperate climate zone.

10.	Grab a warm coat because we are heading to the continental climate zone. This region has cool summers and very cold winters. During the winter, this area has snowstorms, extremely cold temperatures, and very strong-blowing winds. Look at this image of the mountains in a continental climate zone. Place the star on the point that would be the coldest in this region. Take a photo.
11.	Now grab your scarf and mittens! We are on our way to last and coldest climate zone in the world. This is the polar climate zone. Even during the summer, the temperatures are very cold here and the winds are very strong. Why do you think it is so cold in the polar regions?

12. Today we travelled from the warm, humid, tropical climate zone to the very cold, windy, polar climate zone. What did you notice about the difference in climate as we moved from one



climate zone to another?

13. Imagine that your family is going on vacation next week to a new destination. Take a photo of a location anywhere around the world that you would like to visit. Based on what you learned today about global climate patterns, what type of weather do you predict you and your family will experience there? Explain your reasoning.