



## Weather and Climate- Part 2 Climate

**Essential Question: How is weather different around the world?**



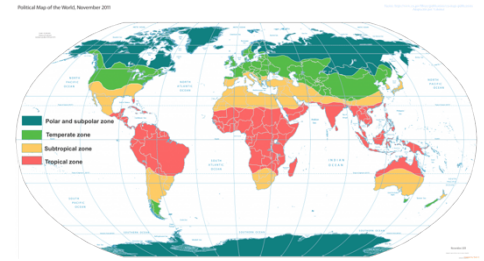
You have won an all expense paid vacation to a very special place in our diverse world. When is the best time to go? What type of clothes will you need to pack? What will you do on your vacation? Students will learn why some places experience more severe weather than others, why some places are cold year-round, and why some places are always hot.

**3-ESS2-1** Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.

**3-ESS2-2** Obtain and combine information to describe climates in different regions of the world.

### Materials Needed Per Student:

- Colored Pencils (Preferably Light Blue, Yellow, Red, Orange, Purple)
- Printed World Climate Map
- Printed World Climate Zones Sheet
- Printed Vacation Location Facts (Optional)



### Advanced Preparation:

Assign each student a location on the World Climate Zone sheet until all locations are covered. Depending on class size some students will get one or some students may end up with 2 or 3. We will do **Antarctica** and **Atlanta, Georgia** together so don't include those when assigning locations.

After we do the first two together, and I have explained how the climate key works, students will then complete the information for the location they were given. We will complete the climate zone map together and students will choose a location to go to on their vacation. You can complete the rest on your own as a class. You can choose to have them make a poster, a commercial, or do a news cast about their vacation location. What is the best time of year to go? What will they do when they get there? What things should they pack for their trip? I have included some fun facts and pictures about some of the areas on our Climate Map, but students are not limited to only these locations.

# Program Connection Information

Please use an external microphone (conference style) rather than the integrated one in the computer for the audio for your class and locate it centrally in the room. It can be difficult for the Greenbush teacher to hear the students using the computer microphone and therefore it reduces the interactive nature of the lesson. It is fine to use the computer webcam for your video source.

All classes will take place using Zoom desktop video. If your building is already set up to use a desktop video application with a computer, simply open a browser and enter <https://greenbush.zoom.us/j/5337714346> in the URL space. You may need to download Zoom launcher software (free download) if you don't already have it. This needs to be done in advance of the lesson.

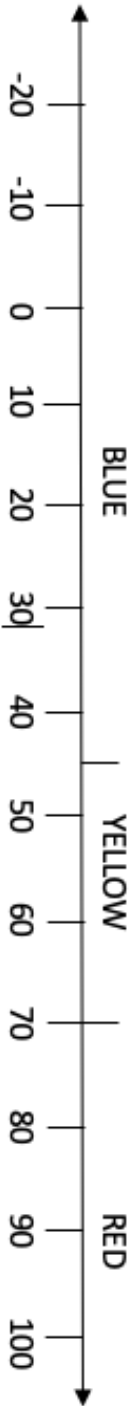
If using a Polycom video conferencing unit (or any legacy type video conferencing unit) to connect to a ZOOM conference, make sure the unit is in "encrypted mode" then dial the following IP on the internet: 162.255.37.11 or 162.255.36.11 and once connected, they will ask for a MEETING ID: enter 533 771 4346 (for Sheila at Science Center).

It's always a good idea to touch base with your district technology facilitator prior to your program to make sure all systems/equipment are in place and operational and that there aren't any firewalls in place that might prevent you from connecting to Zoom.

Once you connect, you will enter a Zoom waiting room. Your Greenbush teacher will admit you into the final meeting room.

If you have questions, please call Sheila Sandford at Greenbush, 620-724-6281, or email at [sheila.sandford@greenbush.org](mailto:sheila.sandford@greenbush.org) (best method of contact).





World Climate Zones

Location	Winter °F	Summer °F	Climate	Location	Winter °F	Summer °F	Climate
Antarctica Research Station	-9	33	_____	Atlanta, Georgia USA	50	75	_____
Vik, Iceland*	34	51	_____	Perito Moreno, Argentina	25	72	_____
Cairo, Egypt*	57	82	_____	Darwin, Australia	77	85	_____
Nord, Greenland*	-7	23	_____	Cape Town, South Africa	53	74	_____
Berlin, Germany*	37	73	_____	Tiksi, Russia	-20	44	_____
Kansas City, Kansas, USA	24	90	_____	Rome, Italy	50	78	_____
Rio de Janeiro, Brazil*	55	75	_____	Queenstown, New Zealand	28	73	_____
Beijing, China*	25	78	_____	Juba, South Sedan	77	91	_____
Sydney, Australia*	53	73	_____	Georgetown, Guyana	83	89	_____
Hong Kong	62	85	_____	Cancun, Mexico	76	85	_____

Climate Zones:	Polar/Cold	_____	(Cold all year long)
	Temperate	_____	(Cold Winters/Warm to Hot Summers)
	Warm	_____	(Warm Winters/Hot Summers)
	Tropical	_____	(Hot all year long)





**FACT SHEET**  
**BEIJING, CHINA**

- Beijing is home to the world's longest wall-The Great Wall.



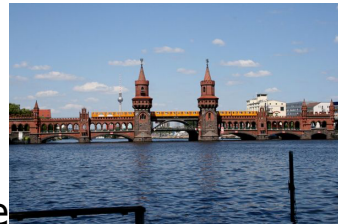
- Beijing's Forbidden City is the largest palace in the world.



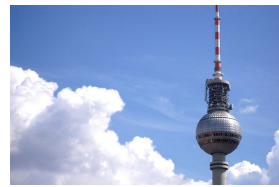
- Beijing was the first city to host both the Summer and Winter Olympics.
- Beijing has a population of almost 20 million people.



**FACT SHEET**  
**Berlin, Germany**



- More bridges than Venice  
Berlin has around 1,700 bridges – a greater number than Venice. A boat trip is a great way of exploring Berlin.



- Tallest structure in Germany  
Berlin TV tower- is one of the largest constructions in Europe. The panoramic viewing floor at 207 metres offers fantastic 360-degree views of the city and attracts almost 1.2 million visitors each year.
- Germany has the most zoo animals in Europe.  
Berlin has two zoos.





**FACT SHEET**  
**Cairo, Egypt**

- Cairo, the capital of Egypt and the largest city in Africa, stands on the banks of the mighty river Nile in the northern part of the country.
- Cairo has millions of tourists who visit the Pyramids at Giza, the majesty of the sphinx.



Pyramids at Giza



Sphinx

- Egypt is home to a wide variety of animals and plants, including jackals, gazelles, crocodiles, and cobras. The best places to see Egypt's wildlife are in its more than 20 protected regions, which include oases, deserts, mountains, coastal areas, river islands, and wetlands.
- Egyptians left paintings and carvings of large animals like elephants, hippos, leopards, and cheetahs. These animals were once common in Egypt, but they are now rare or extinct because of hunting and habitat loss.



**FACT SHEET**  
**Sydney, Australia**

- Sydney's most famous icon, the Sydney Opera House was completed in 1973, taking 14 years and 10 thousand construction workers to build, with a final total cost of \$102 million.



- The Sydney Harbour Bridge is the widest long-span bridge and tallest steel arch bridge in the world, and the 5th longest spanning-arch bridge according to Guinness World Records.



- Some of our best-known animals are the kangaroo, koala, echidna, dingo, platypus, wallaby and wombat.



**Country: Brazil**

**City: Rio De Janeiro**



### **FACT SHEET**

#### **Rio de Janeiro, Brazil**

- Recognized as one of the Seven Wonders of the World-Christ the Redeemer.



- Tijuca National Park is the largest urban rainforest on the planet. It has waterfalls, more than 1,600 plants and more than 350 different species of mammals, birds, amphibians and reptiles.



- Rio has many beaches.
- Brazil has the greatest variety of animals of any country in the world. It is home to 600 mammal species, 1,500 fish species, 1,600 bird species and an amazing 100,000 different types of insects.





### **FACT SHEET**

#### **Nord, Greenland**

- Nord is a military and scientific station in northeastern Greenland.
- Nord features a very cold polar tundra climate with average temperatures just a few degrees above freezing in the midst of the short summer.
- Polar bears, humpback whales, musk oxen, caribou, arctic foxes, hares, eagles and the Arctic wolf are all part of Greenland.



- Winter precipitation generally consists of dry snow.





**FACT SHEET**  
**Tokyo, Japan**

- The Tokyo Skytree is tallest free-standing tower in the world.



- Tokyo has the world's busiest seafood market (fish).
- Disneyland opened their first overseas amusement park in Tokyo.



- You can see Mt. Fuji, Japan's largest mountain. Fuji is only visible for an average of 79 days a year.





**Country: Iceland**

**City: Vik**



### **FACT SHEET**

#### **Vik, Iceland**

- Iceland is easy to get to, with flights just over five hours from the eastern US.
- There are waterfalls, geysers and volcanoes.



- Wildlife consists mostly on birds although the Icelandic waters are rich of marine mammals, such as whales and seals.
- The Black Sand Beach was named the most outstanding black beaches on the planet.

