Cut out the circle and arrow, and lightly fasten the square end of the arrow to the middle of the circle to make your Spin the Wheel Trivia Game. Gluing the arrow onto a piece of firmer paper first will help it spin better!

True or False Trivia Questions

Polar Regions:

1. As warming temperatures cause ice to disappear, walruses are forced to come to shore, posing a threat to young walruses that can get crushed due to overcrowding.
2. As the Arctic warms, new species can extend their ranges, and this is great for biodiversity.
3. Melting ice in Antarctica is causing krill, at the bottom of the food chain, to disappear, impacting penguins, seals and whales.
4. Climate change is causing polar bears to spend more time swimming in the ocean to find food.

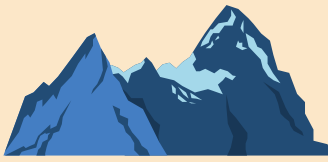
Rainforests:

1. Warmer and drier environments in the Amazon rainforest could start to turn this rainforest into a dry savanna, altering the biodiversity completely.
2. Climate change is slowly giving pollinators more time to help flowering plants and trees reproduce.
3. In some areas, rainforests are projected to have more frequent fires, which is a big risk to Orangutans as they lose their habitats.
4. Tropical forests are one of the best defenses against climate change because they absorb carbon dioxide from the atmosphere.

Oceans:

1. Fish are sensitive to temperature and may migrate farther away from where fishers can catch them as the temperature of the ocean warms.
2. The loss of ocean biodiversity is causing ocean ecosystems to weaken and as a result, the ocean is absorbing less carbon dioxide from the atmosphere and is becoming less of a climate regulator.
3. Warming temperatures are causing more and more baby turtles to be born female and less to be born male.
4. As the ocean absorbs more carbon dioxide from the atmosphere, it becomes more acidic, which helps to build coral reefs.

Mountain Ecosystems:



1. Changes to mountain ecosystems impact downhill ecosystems and communities too.
2. Climate change is changing the global hydrological cycle. For instance, less snow cover in the mountains leads to less snowmelt in the spring, and greater water stress on communities in the summer.
3. Mountains are resilient ecosystems and climate change is only slightly impacting biodiversity.
4. Some alpine species, like the American Pika, have adapted to cold weather mountain ecosystems, and as global temperatures warm, they are at risk of death from overheating in the summers.

Deserts:

1. Lizards who rely on the heat are one of the few species that will thrive as temperatures increase.
2. As warmer temperatures in desert areas increase, already scarce water holes will start to dry up, making it harder for not only animals, but also the 500 million people who live in desert areas, to find fresh water.
3. Increasing wildfires as a result of climate change will change desert landscapes by eliminating all the slow growing trees and shrubs.
4. There is a lot of uncertainty as to how climate change will impact specific species, like cacti.

Urban Areas

1. Cities tend to have lower levels of biodiversity, but are still at risk from climate change.
2. Urban areas trap heat more than natural areas, because of the lack of natural shade and moisture in the air and the increase of human-made heat from vehicles and furnaces, this is called the Urban Heat Island Effect. Urban heat can change the diversity and abundance of biodiversity in a given region.
3. Warming temperatures can cause flowers to bloom earlier in the season, leaving pollinators with fewer food sources later in the year.
4. Few people will be at risk due to of sea level rise driven by climate change.

True or False
Trivia Question Answers

Polar Regions:

1. **True.**
2. **False:** We are seeing an increase of the range of invasive species and species that compete for resources in the Arctic. For instance, scientists and Inuit communities have observed pods of killer whales increasing in size and staying longer in the Arctic, disrupting the ecosystem balance as they eat narwhals.
3. **True**
4. **False:** Less sea ice cover means that polar bears spend more time foraging for food on land, often coming into Northern communities in search of food, putting people and bears at risk.

Rainforests:

1. **True.**
2. **False:** Climate change is changing seasons in rainforests, and longer dry seasons are causing a mismatch between when plants flower and when pollinators are around to pollinate them.
3. **True**
4. **True**

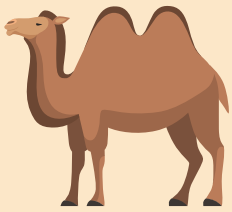
Oceans:

1. **True.**
2. **True**
3. **True**
4. **False:** As ocean acidification caused by climate change increases, coral reefs and other organisms with shells and outer skeletons start to dissolve. This is why we see coral reefs “bleaching” and dying off around the world.

Mountain Ecosystems:

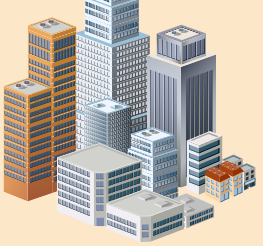
1. **True.**
2. **True**
3. **False:** Globally, unique and vulnerable species of plants and animals live in the mountains, such as the Royal Bengal tiger in Bhutan, Mountain Gorillas in Uganda, and the Glacier Lilies in Canada. Increasing rainfall and declining snow cover is changing the habitat of these species, causing them to shift their range or see their populations decline/ disappear.
4. **True**

Deserts:



1. **False:** Water scarcity, food scarcity and habitat loss caused by climate change will affect even heat-dependant animals like lizards.
2. **True**
3. **True**
4. **True**

Urban Areas



1. **True**
2. **True**
3. **True**
4. **False:** Hundreds of millions of people who live near the coast will be at risk because of sea level rise driven by climate change, given that major cities tend to be located near the ocean.