Biomes: Ecosystems on Land

1. Define **biome -**
2. The two most significant abiotic factors that influence life in a biome are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. What is the relationship between **latitude** and average temperature?
2. Label the equator (0°), South Pole (90°S), and North Pole (90°S) on the globe.



1. What is the relationship between **altitude** and average temperature?
2. According to the **rain shadow effect**, which side of the mountain receives more precipitation?
	1. Which side receives less precipitation?
3. Label the **windward slope** and **leeward slope** on the mountain diagram below.



1. What two climate effects are typically observed in biomes near large bodies of water?

**Climatographs**

1. Define **climatograph –**



* 1. What does the line graph represent?
	2. What does the bar graph represent?
	3. Describe the seasonal changes present in Tofino, British Columbia.

**Deserts**

1. Describe conditions that are true of all deserts.
2. For each of these types of deserts, explain **why** they are so dry, and give an example.

|  |  |  |
| --- | --- | --- |
| **Desert** | **Cause of Low Precipitation** | **Example** |
| **Subtropical** |  |  |
| **Rain shadow** |  |  |
| **Coastal** |  |  |
| **Temperate** |  |  |
| **Polar** |  |  |

**Grasslands**

1. Describe conditions that are true of all deserts.
2. For each of these types of grasslands, describe the climate and give an example.

|  |  |  |
| --- | --- | --- |
| **Grassland** | **Climate** | **Example** |
| **Savanna*****Tropical Grassland*** |  |  |
| **Prairie*****Temperate Grassland*** |  |  |
| **Tundra*****Polar Grassland*** |  |  |

**Forests**

1. What conditions are found in a **tropical rain forest?**
2. Describe what is found in each layer of the rain forest:
	1. Emergent Layer / Canopy –
	2. Understory –
	3. Forest Floor –
3. What conditions are found in a **temperate deciduous forest?**
	1. Why do deciduous trees shed their leaves in the winter?
4. How are temperate rainforests different than tropical ones?
	1. Why does the Northern Pacific coast of North America have idea conditions for temperate rainforests?
5. What conditions are found in a **boreal forest**?
	1. Describe the adaptations found in trees here that allows them to survive the long winters.

**Ecological Succession**

1. Define succession –
	1. What point in ecological succession are pioneer species found? Climax species?
2. Define **primary succession –**
	1. What factors cause the breakdown of rocks into soil that can support life?
	2. Label each of the different types of plants that grow during the stages of primary succession.



1. Define **secondary succession –**
	1. Why is secondary succession so much faster than primary succession?
	2. Label each of the different types of plants that grow during the stages of secondary succession.