**Climate and Weather**

Multiple Choice

1. Identify the best definition of climate from the list below.
2. A description of the lithosphere in terms of acidity, water content and nitrogen content.
3. A description of the atmosphere in terms or wind, precipitation and temperature.
4. An average of the weather conditions over a long period of time.
5. A description of the hydrosphere in terms of tide, acidity and temperature.
6. Identify the best definition of weather from the list below.
7. A description of the hydrosphere in terms of tide, acidity and temperature.
8. A description of the atmosphere in terms or wind, cloud, precipitation and temperature over a short period of time.
9. An average of the weather conditions over a long period of time.
10. A description of the lithosphere in terms of acidity, water content and nitrogen content.
11. Recall the effect of the round shape of the Earth.
12. Different heat emission rates of land and water.
13. Different heat absorption rates of land and water.
14. Uneven heating of the Earth.
15. Dizzy spells.
16. Describe how the heat absorption rate of oceans differs from that of land and air.
17. Describe how the heat absorption rate of oceans differs from that of land and air.
18. The temperature of the ocean changes the most between night and day.
19. The temperature of the ocean does not change at all between night and day time.
20. The ocean does not absorb any heat.
21. Describe how the more stable heat absorption and emission rates of the ocean affect the weather of coastal regions.
22. They are more protected from temperature extremes then inland regions.
23. They experience more temperature extremes than inland regions.
24. They experience more droughts than inland regions.
25. They experience more cold fronts than inland regions.
26. State what happens to the temperature of the layer of the atmosphere that humans live in, as height increases.
27. It decreases.
28. It increases.
29. It doesn't change.
30. It increases and then decreases.
31. Recall how the tilt of the Earth's axis affects Earth's climate.
32. It causes the poles to go 6 months with little to no sun.
33. It causes everywhere but the poles to go 6 months with little to no sun.
34. It alters heat absorption rates or land, air and water.
35. It changes the temperature of the atmosphere as height increases.
36. Determine what the air temperature will be, on average, at 1600 metres above sea level, compared to sea level.
37. Higher
38. The same
39. There is no way of knowing
40. Lower
41. Recall why more heat is absorbed in areas that have more plants.
42. The colour green absorbs the most heat.
43. It cannot escape the canopy of trees.
44. Plants absorb it for photosynthesis.
45. There are more animals living there.
46. Define the greenhouse effect.
47. The greenhouse effect is the trapping of oxygen in the atmosphere by certain gases.
48. The greenhouse effect is the trapping of water in the atmosphere by certain gases.
49. The greenhouse effect is the trapping of heat in the atmosphere by certain gases.
50. The greenhouse effect is the trapping of heat in the atmosphere by large glass panels above the Earth.
51. Define climate change.
52. A change in average weather patterns over a long period of time.
53. A change in average weather patterns over a short period of time.
54. A change in ocean temperature over a long period of time.
55. A change in the air conditioning temperature.
56. List some types of evidence that scientists use to study past climate change events.

Select ALL correct options.

1. Atmospheric samples
2. Personal statements
3. Pollen fossils
4. Climate change isn’t real!
5. Rain catchments
6. Ice cores
7. Sea level changes
8. Glacier movement
9. Recall how scientists use glaciers to determine if and when climate change events have occurred in the past.
10. They study the scorring left on rocks as glaciers advance and retreat.
11. They paint pictures of glaciers and see how the pictures change over time.
12. They study the erosion as glaciers advance and retreat.
13. They study the animals trapped inside the glaciers.
14. Recall how scientists use ice cores to determine if and when climate change events have occurred in the past.
15. They study the erosion as ice sheets advance and retreat.
16. They study the depth of the ice.
17. They study the chemical composition of the different layers in the core.
18. They study the pollen fossil composition in the ice.
19. Recall how scientists use fossils of pollen to determine if and when climate change events have occurred in the past.
20. They study changes in the number and types of pollen fossilised over time.
21. They study a special kind of pollen that's always fossilised.
22. They study changes in the types of pollen fossilised in the last 200 years.
23. They study how many dinosaurs were fossilised while eating pollen in Antarctica.
24. Recall how scientists use changes in sea levels to determine if and when climate change events have occurred in the past.
25. They study the distribution of sedimentary rock only in central Australia.
26. They study how quickly the water is rising with each tide.
27. They study the distribution of sedimentary rock and marine fossils.
28. They study the distribution of shells on the beach.
29. Earth's climate is not static. Throughout its history, Earth has cycled through periods of warming and cooling.

Identify what a cooling period is also known as.

1. Snow storms
2. Glacial periods
3. Icy pole periods
4. Interglacial periods
5. Earth's climate is not static. Throughout its history, Earth has cycled through periods of warming and cooling.

Identify what a warming period is also known as.

1. Heatwaves
2. Tropical periods
3. Glacial periods
4. Interglacial periods