

## Preamble

Be sure to use the website at [http://www.bcsience.com/bc10/pgs/links\\_u1.html](http://www.bcsience.com/bc10/pgs/links_u1.html) and scroll down to the section for Chapter 1.

This course has a provincial exam at the end, worth 20% of your final mark in Science 10. If you take the time to learn how this text was designed to help you, you will be better prepared to write the exam.

To do well in this course, you need to complete the following *before* beginning to complete the worksheets.

- A tour of Your Textbook from pp. x–xvi.
- Read completely and thoroughly the “Reading Strategies for BC Science 10” beginning on p. xvii.
- The companion website (the link is above) was designed to supplement the content of this textbook and is a very valuable educational tool to help you better understand the concepts in Science 10. When you click on the website, you will see the units on the left, corresponding to the units in the textbook. Click on the unit and then go to the Chapter you are working on to find the topic you are studying.

## Chapter 1 – Biomes and ecosystems are divisions of the biosphere.

### Chapter 1.1 - Biomes

1. Biomes are the largest division of the \_\_\_\_\_ .
2. The large regions within biomes have similar \_\_\_\_\_ and \_\_\_\_\_ components.
3. Organisms have \_\_\_\_\_ for survival in the environmental conditions of their biome.
4. The environmental characteristics of Vancouver Island are similar to the environmental conditions you would find on \_\_\_\_\_.
5. Scientists study the biosphere by breaking it down into smaller divisions. The three divisions, from largest to smallest are \_\_\_\_\_.
6. Understanding how the biotic and abiotic components of a biome \_\_\_\_\_ will help you understand how biomes are \_\_\_\_\_ across \_\_\_\_\_ and how changes in a biome may affect the organisms living in them.
7. Completing the 1-1A “Find Out Activity” will give you a better understanding of biomes.

8. Name the major biomes that are in Canada.
  
  
  
  
  
  
  
  
  
  
9. \_\_\_\_\_ and \_\_\_\_\_ are two of the most important \_\_\_\_\_ factors that influence the \_\_\_\_\_ of biomes.
  
  
  
  
  
  
  
  
  
  
10. Learn how to use the “annual temperature and precipitation of biomes” graph by doing the practice problems on p. 13.
  
  
  
  
  
  
  
  
  
  
11. How does temperature change with latitude?
  
  
  
  
  
  
  
  
  
  
12. How does precipitation change with latitude?
  
  
  
  
  
  
  
  
  
  
13. Why is elevation important in determining the characteristics of biomes?
  
  
  
  
  
  
  
  
  
  
14. Explain why the climatic conditions are different on the windward and leeward side of a mountain.

15. Why are ocean currents considered an abiotic factor?
16. What are climatographs, and how are they used between and within biomes?
17. \_\_\_\_\_ is home to Canada's only desert, called the \_\_\_\_\_, and it is located in the uppermost part of the \_\_\_\_\_.
18. Name and describe three types of adaptations.
19. Give a concise definition of a biome.
20. Biomes are often named for their \_\_\_\_\_, or for a \_\_\_\_\_ or \_\_\_\_\_.

21. Name and describe the location, climate, physical features, and the plant and animal adaptations of the tundra biome found in Canada.

22. Name and describe the location, climate, physical features, and the plant and animal adaptations of the boreal forest biome found in Canada.

23. Name and describe the location, climate, physical features, and the plant and animal adaptations of the temperate deciduous forest biome found in Canada.

24. Name and describe the location, climate, physical features, and the plant and animal adaptations of the temperate rainforest biome found in Canada.

25. Name and describe the location, climate, physical features, and the plant and animal adaptations of the temperate grassland biome found in Canada.

26. Name and describe the location, climate, physical features, and the plant and animal adaptations of the cold desert biome found in Canada.

27. Name and describe the location, climate, physical features, and the plant and animal adaptations of the permanent ice (polar ice) biome found in Canada.

28. Scientists estimate that the quantity of soil that moves large distances in Earth's atmosphere is approximately \_\_\_\_\_.
29. Give two damaging environmental effects caused by the Saharan dust.

### **Chapter 1.2 - Ecosystems**

1. The \_\_\_\_\_ components of an ecosystem support the \_\_\_\_\_ of the \_\_\_\_\_ components of an ecosystem.
2. Organisms within communities interact to obtain resources such as \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_.
3. What important questions does historical ecology raise about what natural ecosystems are?
4. What is the branch of science that deals with the interactions of organisms and their environments?
5. Describe the components of an ecosystem.
6. Describe a habitat.
7. Name two abiotic components of the environment that are essential for survival.
8. Name the process that converts solar energy into chemical energy.



18. Name two ways that prey can avoid predators.

19. What is the best indicator of the health of an ecosystem?

***Vocabulary to Know***

Write a concise definition of each of these terms found in this chapter.

**abiotic**

**behavioural adaptation**

**biome**

**biotic**

**climate**

**climatograph**

**commensalism**

**competition**

**ecosystem**

**mutualism**

**niche**

**parasitism**

**physiological adaptation**

**predation**

**structural adaptation**