

Geological Time Scale (Use the Orca text p. 63-68)

1. Which sedimentary rock layers are the oldest? Why?
2. Why may some rock layers be missing?
3. Explain what is meant by Geological (Biological) Time Scale.
4. A) What is the Burgess Shale?
B) Where is it located?
5. Give 2 examples of organisms found in the Burgess Shale.
6. Looking at Fig 2.6, give the Era and Period (if given) for:
 - a) Animals with shells appear
 - b) Oldest known fossils
 - c) Mammals appear
 - d) Dinosaurs go extinct
 - e) How many mass extinctions have there been?

Geological Time Scale (continued)

7. What is remarkable about the life in the Burgess Shale?
8. How was the Burgess Shale formed? (Fig 2.7)
9. A) What is radioactive dating?
 - B) What radioactive isotope is used to date “old” fossils (over 50,000 years)?
 - C) What radioactive isotope is used to date “young” fossils (less than 50,000 years)?
10. A) How old is the Earth?
 - b) When did life first appear on Earth?