Reading assignment

“It’s a Fishapod”

Directions:

1. Read the article by Sean B. Carroll “It’s a Fishapod!”
2. Look up and define the following terms:
   1. paleontology
   2. Fossil
   3. Tetrapod
   4. Digits (on hands and feet)
3. Answer the following questions
   1. Who is Neil Shubin and what is he most interested in discovering?
   2. Prior to late Devonian the only vertebrates were:
   3. By the end of the Devonian how did life change?
   4. *Acanthostega* was discovered on east coast of Greenland, but the most surprising feature of this tetrapod was that:
   5. Why was Red Hill unable to fill the fish-tetrapod gap in the fossil record?
   6. Where did Neil and Ted discover that fossils were best preserved at?
   7. Why did Neil and Ted get so excited about the “Fram Formation” on southern Ellesmere Island as the target of their study to fill the fish-tetrapod gap? What were some of the dangers scientists faced on Melville Island?
   8. What did the scientists plan to maintain morale and camaraderie at camp Ellesmere? What was the purpose of plaster jackets?
   9. On Neil and his crew’s third expedition to Ellesmere, describe the characteristics of fossils that were found? The fossils (from above) were sent to a laboratory where more rock was removed and what was found?
   10. Why is it called a “fishapod”?
   11. Why did the scientists call their new fossil discovery *Tiktaalik*? What does its name mean?
   12. What is the fossils genus name?
   13. Why was the finding of the “fishapod” so important?
4. In a paragraph, summarize how the structure of the pectoral fin of the *Tiktaalik* provides evidence of how organisms have made the transition from living in aquatic environments to moving about on land.
5. In a paragraph, explain why *Tiktaalik* was such an important and noteworthy fossil find. Was it really such a surprise given what was already known about organisms moving from water to land? Explain!