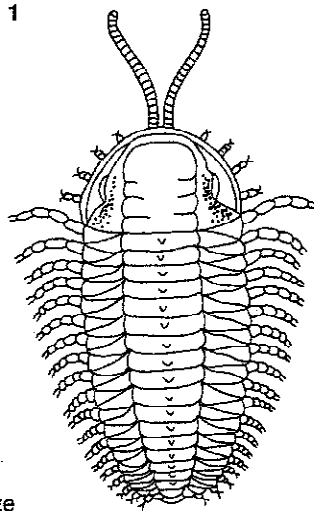


Investigating Crustaceans

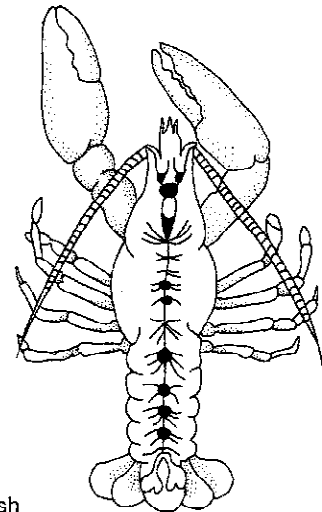
Differences in body form are often observed in animals of the same phylum. In this activity, you will compare segmentation and the development of the members of the phylum *Arthropoda*.

Figure 1 shows a trilobite and a crayfish. Both of these animals are arthropods. The trilobite lived about 300 million years ago during the Paleozoic Era. It is believed to be an ancestor of modern arthropods. The crayfish may have evolved about 225 million years ago. However, the lack of fossil evidence makes it difficult to determine exactly when it first appeared.

Figure 1



Trilobite



Crayfish

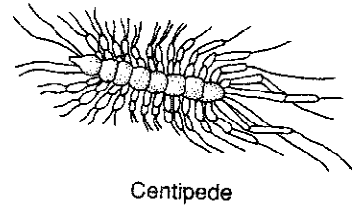
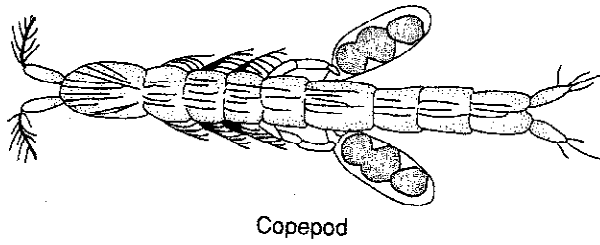
1. Compare the limbs of the two animals.

2. Describe the features that these organisms have in common.

3. Based on Figure 1, summarize the changes that have occurred during the evolution of arthropods.

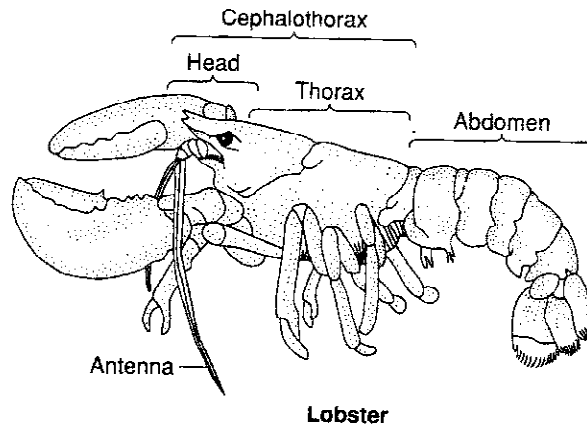
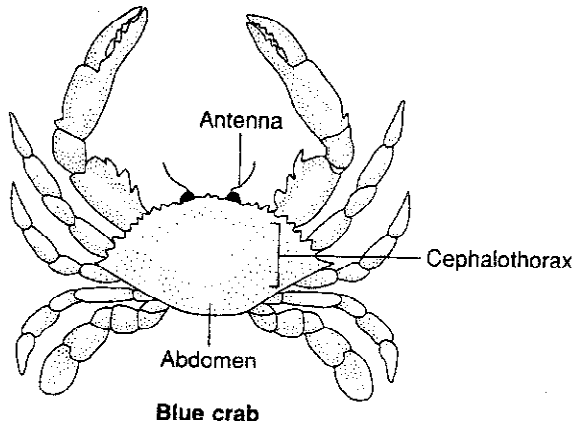
4. Are the trilobite and the crayfish closely related? Explain your answer.

Figure 2



5. Are the centipede and the copepod closely related?

Figure 3



6. Compare the cephalothorax and the abdomen of the two animals in Figure 3.

7. Compare their appendages.
