

Write the answers on your own paper, not on this sheet.

1. Define the following terms:

- |                  |                            |
|------------------|----------------------------|
| a. Exoskeleton   | f. Compound eye            |
| b. Molt          | g. Simple eye              |
| c. Thorax        | h. Open circulatory system |
| d. Abdomen       | i. Statocyst               |
| e. Cephalothorax | j. Gonad                   |

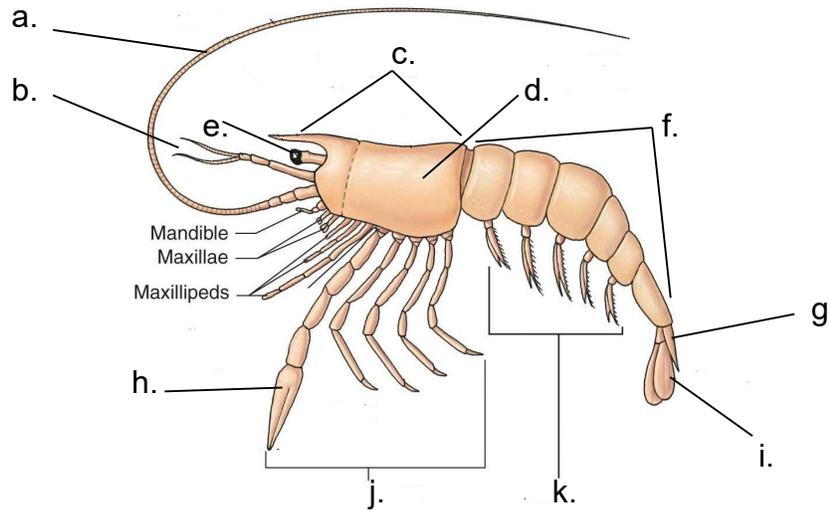
2. What chemical makes an arthropod's exoskeleton tough and flexible?

3. Why do arthropods molt?

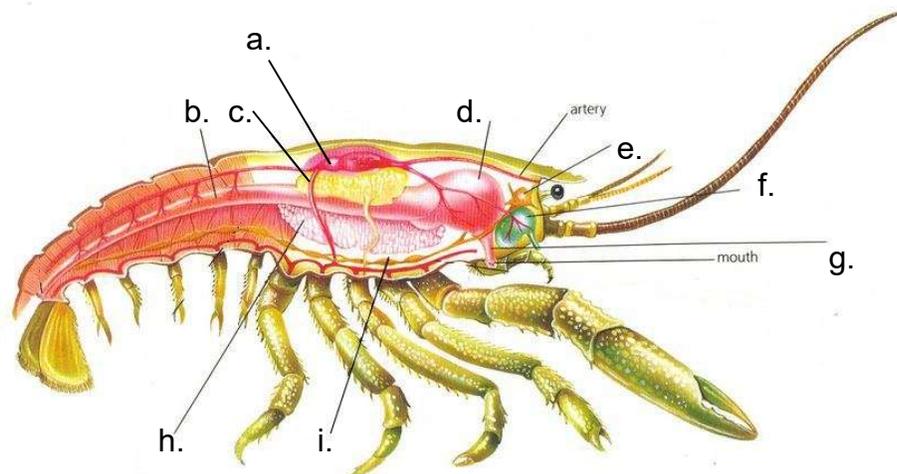
4. What does "arthropod" mean?

5. Is a ventral nervous system located along the top of the exoskeleton or along the bottom?

6. Identify the exterior structures of the crayfish:



7. Identify the organs inside the crayfish:



8. Starting at the pericardial sinus, explain the flow of blood in a crayfish. Where does it go?
9. What does the green gland do?
10. What structures does a crayfish use to breathe?
11. What happens if a crayfish loses a limb?
12. Where do the fertilized eggs of a crayfish go?
13. What two structures does a crayfish use for taste and touch?
14. If a crayfish cannot stay upright in the water, what organ is most likely not working?

Read pages 372 - 388.

Assignment #2

Write on your own paper, not on this sheet.

1. List the 5 common characteristics of arachnids.
2. What structures do spiders use to breathe?
3. List two ways spiders capture their prey.
4. Read the article Why is Spider Silk So *Strong* at <https://www.scientificamerican.com/article/why-is-spider-silk-so-str/>
  - a. What is dragline silk?
  - b. Why don't spiders stick to their own web?
5. What organs do spiders use to make silk?
6. List two differences between centipedes and millipedes.
7. List the 4 common characteristics of insects.
8. Name an insect that has the type of wing listed below:
  - a. Membranous wings
  - b. Scaled wings
  - c. Leather-like wings
  - d. Horny wings
9. What structures do insects use to breathe?
10. Do insects have open or closed circulatory systems?
11. What do Malpighian tubules do?
12. List the stages of complete metamorphosis.
13. List the stages of incomplete metamorphosis.
14. What are social insects?
15. Indicate the order of each insect described below:
  - a. Has two leather-like wings and two membranous wings
  - b. Has scaled wings
  - c. Social insect with membranous wings
  - d. Has two horny wings and two membranous wings
  - e. Has two membranous wings and two membranous balancers

