

Name:

Date:

1. Phylum Arthropoda is the largest on Earth (True/False) (1 mark)

2. List 4 of the 5 classes in Phylum Arthropoda and state one example organism of each. (4 marks)

chilopoda - centipedes
 diplopoda - millipedes
 crustacea - crayfish

arachnida - spider
 insecta - grasshopper

3. List 3 characteristics/advancements of Arthropods and EXPLAIN them. (3 marks)

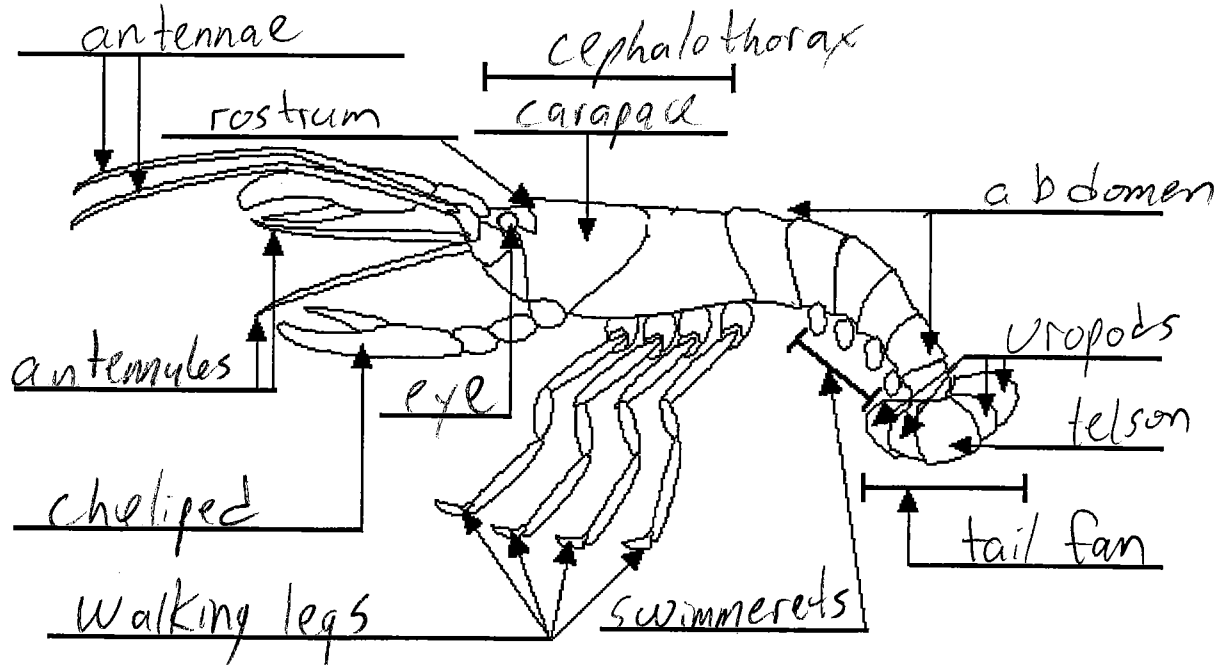
- Exoskeleton - hard outer skeleton
- Appendage formation - specialized appendages for feeding, walking, ...
- Segmentation - specialized body regions
- well developed sensory ability
- ventral nerve cord & brain
- sexual reproduction only
- respiratory system - gills, tracheal tubes, book lungs

4. List 4 reasons (remember from your notes!) why insects are so successful. (4 marks)

- small size
- exoskeleton
- short life span
- sexual reproduction - genetic variation
- flight
- specialized appendages
- camouflage
- well developed sensory ability
- social behaviour
- specific niche → low competition
- don't eat much

5. Label the external anatomy of the crayfish. (6 marks - ½ mark each - one line with no value)

WORD BANK (you will NOT get one for the test!) Abdomen, antennae, antennules, carapace, cephalothorax, cheliped, eye, rostrum, swimmerets, tail fan, telson, uropods, walking legs



6. What would you expect to find (in terms of organs and structures) inside the cephalothorax of a crayfish? List 4 things you could find. (4 marks)

- gills
- stomach
- heart
- gonads
- digestive glands
- green glands
- ventral nerve cord
- teeth
- intestines (we didn't find it here)

7. What type of respiratory system do spiders possess? How is it different from a grasshopper's respiratory system (ie. What type of respiratory system do grasshoppers have)? (2 marks)

spiders - book lungs

grasshoppers - tracheal tubes with spiracles

8. Malpighian tubules in insects and green glands in crayfish have a similar function. What is this function? (1 mark)

- Filter blood and remove cellular waste products (ammonia)

9. Arthropods have exoskeletons made of chitin. One downfall of this type of skeleton is that they have to moult in order to grow a new larger exoskeleton. (2 marks)