

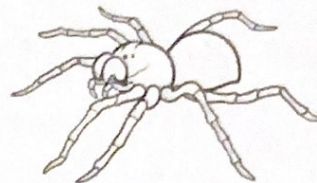
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Compare the Anatomy of Arthropods

Arthropods are a group of animals (belonging to the Animal Kingdom) that have a hard exoskeleton, body segments and jointed appendages. There are three main groups within the Phylum Arthropoda.



Insects

Insects have three body segments, the head, thorax (middle region) and the abdomen. Often you can see segments on the abdomen of insects. Locate all the insects on the coloring sheet and color the head red, the thorax yellow and the abdomen green.

Insects have three sets of legs which attach to the thorax. Color all the insect legs blue. You will also note that each insect has a pair of antenna, color or shade over the antenna in grey.

The mouthparts of insects have a pair of mandibles that chew food. Unlike the teeth of other animals, mandibles open from side to side. Locate the mandibles (they are only visible on two of the insects pictured) and color the mandibles purple. Some, but not all insects have wings, which also attach to the thorax. Color the wings pink. An additional body part can be seen on the grasshopper, and covering near the wings that is hard and protective called the carapace - color the carapace brown.

Arachnids

Arachnids are a group of arthropods that include spiders and ticks. They have two body parts: the cephalothorax (head-middle) and the abdomen. Color the cephalothorax orange and the abdomen green. Arachnids have 8 legs, instead of the 6 you find in insects. Color the legs blue. Notice that arachnids do not have antennae, but you can see the mandibles on the spider pictured, you should have already colored the mandibles purple.

Crustaceans

Crustaceans are a group of arthropods that mainly live in the water; they include lobsters, crabs, shrimp and crayfish. Crustaceans usually have two body segments, the cephalothorax (orange) and the abdomen (green).

The number of appendages on crustaceans can vary, and many of them have large claws, used for capturing prey. Color the claws on the lobster brown and the large legs attached to the thorax blue. Notice the little legs attached to the abdomen on the lobster which the animal uses for swimming. These appendages are called swimmerets - color dark blue. Crustaceans also have antennae - color grey.

Centipede

This animal belongs to an entirely different class from the others. Centipedes have long flat bodies and many legs. In fact the word "centipede" means "hundred legs", though centipedes can actually have more or less than a hundred. Color the legs of the centipede blue and each of its body segments red and the antennae grey. Centipedes are often poisonous and are related to the non-poisonous millipede.

1. How many body segments does an insect have? 3How many legs? 62. How many segments does an arachnid have? 2How many legs? 8

3. Which groups of arthropods have antennae?

Crustaceans, hexapods, myriapods, trilobites

4. What part of the body can you see segmentation?

the abdomen

5. What are the chewing mouthparts of arthropods called?

Mandibulate / mandibles

6. To what part of the body do the wings attach? The Thorax
7. The head and thorax are fused together in some arthropods to form the Cephalothorax
8. What does the word "centipede" mean? a 100 legged invertebrate
9. Which examples on the coloring sheet are insects? Ant, grasshopper, bee, grasshopper
Which are arachnids? Spider, tick
10. Describe two ways you can tell the difference between an insect and an arachnid? Insects have 6 legs, arachnids have 8 legs. Insects have 3 body segments, arachnids have 2



Ant



Grasshopper



Spider



Lobster



Bee



Centipede



Tick