Grasshoppers, Beetles, and Butterflies, Oh My!

Prelab Questions:
1. What order are a grasshopper, beetle, and butterfly in? (Hint: They are different)
2. What characteristics do they all have in common?
3. What characteristics do they not share?
4. What type of life cycle does each one have? Complete or Incomplete?

Label the parts on each species:

Label: Abdomen, Antennae, Compound Eye, Head, Jumping Legs, Mandibles, Palps, Spiracles, Thorax, Walking Legs, and Wings

Questions:
1. Is this grasshopper in the picture above male or female? Look at figure 21.2 in your book to help.
2. Look at your preserved grasshopper. Is it male or female? How do you know?
3. In the picture above, color and label the Femur, Tibia, and Tarsus of the hind leg yellow.
4. What is the function of the spiracles?
5. On your specimen, carefully try to extend the wing. How many wings are there and what are their names?
Be able to identify all body parts on YOUR grasshopper. When ready call your teacher over for a group quiz.

**BEETLE ANATOMY**

Questions:
1. Beetles have an Elytron, a hardened fore wing. What do you think the purpose of this structure is?

1. The compound eye is made of hexagonal lenses. What do you think a beetle sees with this sort of vision?

1. On your illustration above, color the abdominal segments green, the thorax blue, and the head orange. How many segments make up each section?
   Abdomen = ___________ Thorax = ___________ Head = ___________

1. Label and Color the life cycle of the beetle below. Egg (Purple), Adult (Black), Pupa (White), Larva (Tan)

Be able to identify all body parts on YOUR Beetle. When ready call your teacher over for a group quiz.
Questions:

1. What do butterflies eat?

2. Why do you think the proboscis is so long?

3. Give an example of butterfly mimicry.

4. During butterfly migration, butterflies will fly to the exact location of their relatives’ birth, however none of the relatives are alive. How do you think they know where to go?

Be able to identify all body parts on YOUR butterfly. When ready call your teacher over for a group quiz.