

Study Guide – Texas 4-H Entomology ID Contest
General Entomology

1. Review the Wonderful World of Insects Video on an unlisted YouTube Chanel - <https://youtu.be/belUKvS0ZSU>
2. Follow along with your 4-H Entomology Guidelines. Study Materials for All Age Groups & Page 1 of All Orders. (<https://entomology.tamu.edu/extension/youth/4-h/4h-contest/>)
3. Review the Key Words to Know
4. Answer the study guide questions

Key Words to Know:

Entomology
Exoskeleton
Arthropoda
Head, Thorax, Abdomen
Chewing/Mandibulate
Piercing Sucking

Study Guide Questions:

What Class are insects in?
What Phylum are insects in?
What Kingdom are insects in?
How many body regions do insects have? Name them.
How many legs do insects have? Where are legs attached?
How many wings can insects have? Where are they attached?
What types of mouthparts can insects have? How are they different?
What covers an insect's body?

**Study Guide – Texas 4-H Entomology ID Contest
Lifecycles**

1. Review the Lifecycle Video on Bexar Entomology YouTube - <https://youtu.be/64K2ivmJRpk>
2. Follow along with your 4-H Entomology Guidelines. Study Materials for All Age Groups, pages 6-7. (<https://entomology.tamu.edu/extension/youth/4-h/4h-contest/>)
3. Review the Key Words to Know
4. Answer the study guide questions

Key Words to Know:

Metamorphosis
Ametabolous
Hemimetabolous
Holometabolous
Nymph
Naiad
Larva
Pupa

Study Guide Questions:

What does metamorphosis mean?
What do insects have to do to grow?
What stage of insects molt?
What are the stages of an insect with no metamorphosis or ametamorphosis?
What are the stages of an insect with an incomplete metamorphosis or hemimetabolous?
What are the stages of an insect with a complete metamorphosis or holometabolous?
Name three insects that are hemimetabolous.
Name three insects that are holometabolous.

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Mouthparts

1. Review the Lifecycle Video on Bexar Entomology YouTube - <https://youtu.be/ZpJWnAps3VY>
2. Follow along with your 4-H Entomology Guidelines. Study Materials for All Age Groups, page 3. (<https://entomology.tamu.edu/extension/youth/4-h/4h-contest/>)
3. Review the Key Words to Know
4. Answer the study guide questions

Key Words to Know:

Chewing

Piercing Sucking

Haustellate

Mandibulate

Study Guide Questions:

What type of mouthparts are haustellate?

What type of mouthparts are mandibulate?

Name three insects with haustellate mouthparts.

Name three insects with mandibulate mouthparts.