

INSECTS LESSON PLAN

Lesson Topic: Insects Grade level: Elementary Grades

Length of lesson: Approximately 5 days; will vary based on age and ability

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Stage 1 – Desired Results	
<p>Content Standard(s): Instructor will determine which standards this lesson aligns to based on which standards (state or common core) are to be followed.</p>	
<p>Understanding (s)/goals</p> <ul style="list-style-type: none"> Students will understand that insects are a unique group within the animal kingdom. 	<p>Essential Question(s):</p> <ul style="list-style-type: none"> How do the characteristics of an insect distinguish them from other animal groups?
<p>Student objectives (outcomes): Students will be able to:</p> <ul style="list-style-type: none"> Identify 5 common characteristics of most insects. Name at least 5 insects and tell 2 facts about each one. Identify insects versus non-insects. Understand key vocabulary from <u>The Fascinating World of Insects</u> video. 	
Stage 2 – Assessment Evidence	
<p>Performance Task(s):</p> <ul style="list-style-type: none"> Individual assessment: Students will research an insect and create a model of that insect. Materials to be determined by instructor. 	<p>Other Evidence:</p> <ul style="list-style-type: none"> Completion of cloze activity while watching <u>The Fascinating World of Insects</u> video. Completion of multiple choice quizzes at the end of <u>The Fascinating World of Insects</u> video. Teacher will observe students as they work on the tasks. Assess students in class through conversations and questioning.

Stage 3 – Learning Plan

Learning Activities:

- Do KWL (what you know/what you want to know/what you have learned) to assess students' prior knowledge.
- Watch The Fascinating World of Insects video; complete cloze activity while watching.
- Discuss specific unique characteristics of insects; create list
- Insects vs. non-insects card sort.
- Clarify and provide further explanation, if needed, of “The Big Words.”
- Complete academic vocabulary booklet with “The Big Words.” Print off multiple pages of the graphic organizer. Allow student to create a cover on a blank piece of paper. Staple all pages together into a booklet.
- Label insect parts: Student draws an insect and labels the head, abdomen, thorax, antennae (2), legs (6), eyes, and wings (if chosen insect has them).

Field Trip Ideas:

- *Backyard or park
- *Bug zoo
- *Museum with an insect exhibit
- *Local garden center or nursery
- *Butterfly exhibit

INSECTS CLOZE

DIRECTIONS: While watching The Fascinating World of Insects, circle the word that best complete the sentence with the correct information you hear from the video.

1. Every insect has six legs, a three part body, very special eyes, and a feeler on each side of its head called an (**antenna, wand, earring**). And the three parts of the insect body are the head, thorax and abdomen. They also have a hard outer shell called an exoskeleton. Most insects don't have regular ears, they hear by using their antennae, or detect vibrations using small hairs on their body.

2. Insect mouths come in several different shapes and sizes. Depending on the insect, their (**eyes, mouths, noses**) are used for piercing (like the mosquito), sucking (like the butterfly), sponging (like the fly) or chewing (like the grasshopper).

3. A grasshopper is an insect known for its loud singing. Only male grasshoppers sing. They make their sound by rubbing one leg against another part of their body, like the wing or other leg. They are great (**dancers, flyers, jumpers**). Their back legs are very strong and the grasshopper can jump up to 20 times the length of its own body.

4. Our next insect is the ladybug. They are best known for their brightly colored spotted shells, or elytra, which are often red or orange. However, they come in other colors such as blue with black spots, yellow with black (**spots, zigzags, stripes**) and brown with white spots. Some ladybugs have a lot of spots while others have only a few. In fact some ladybugs don't have any spots or bright colors. Underneath their shell are wings which allow the lady bug to fly.

5. Our next insect is called the rhinoceros beetle. They get their name from the large horn on the male rhino beetle. They use the (**eye, horn, antennae**) on the front of their heads to dig and to protect their territory against other male rhino beetles. Female rhino beetles do not have horns.

6. Another relative of the ladybug, in the beetle family, is the firefly. They are best known for glowing in the dark with a yellow, green or red light that comes from their **(abdomen, toes, nose)** and are often seen outside on summer nights. They flash their light to communicate or talk to each other or send a warning to animals that might want to eat them. Sometimes, a large group of them will turn their lights on and off all at the same time.

7. A mosquito bite leaves a red, itchy bump on people. Only the female mosquito sucks blood. She does this in order to feed her eggs. The loud buzzing sound that you hear coming from a mosquito is because of the **(hands, wings, ears)** flapping up to 600 times per second as they fly. Mosquitoes love to hang out in places with standing water like swamps or swimming pools. They can be dangerous because they spread an illness called Malaria.

8. Our next insect is the honey bee. Like the mosquito, a honey bee also has a very large proboscis on the front of its head that it uses to gather **(leaves, dust, nectar)** from flowers. Inside the bee's stomach the nectar becomes honey. While the honey bees are gathering nectar from the flower, it gets covered with pollen. They have a special ability to help flowers grow by spreading pollen from one flower to another.

9. This insect walks on water and is called a water strider. The water strider's legs are used for moving across the water, turning their body and eating food. They have good vision and can move very quickly across the water. The legs spread the insect's **(weight, height, length)** over a large area so they don't fall into the water. They have tiny hairs covering their body so they don't get wet. The hairs capture air to help the water strider float.

10. Ants build nests called colonies. These colonies can contain millions of ants. Their nests are in the ground or above ground built out of decaying wood. Ants have special jobs and they work together to support the **(neighborhood, community, colony)** and protect the queen ant. The queen's job is to lay eggs for the colony.

11. A praying mantis is an insect that hunts and eats other bugs. They come in many colors like; green, pink or brown. They have the ability to blend into their surroundings and look like leaves or plants. This is known as camouflage. They have spiked forelegs used for grabbing and holding their prey. Sometimes, the praying mantis will **(hold, strike, swing)** their prey so fast that you can't even see it with the human eye.

12. The dragonfly likes to be near water and has a specific area along the bank of a river or stream that he patrols for most of the day. The dragonfly's favorite snack is the mosquito and they can catch and eat the mosquito and other insects in the air, while flying. Their (**wings, antennae, thorax**) are very well adapted for this type of predatory behavior, as they can fly forward, sideways, backward or hover in place.

13. A butterfly has 4 wings, two on each side. The front and rear wings move separately to help them fly better. Some butterflies, like the Monarch, can migrate very long distances, sometimes up to 3000 miles. A butterfly has four stages of growth. They start out as an egg. The egg has a hard outer shell and is usually found on leaves. The leaves provide a good source of food for the next stage of development called the larval stage. Butterfly larva is also known as caterpillars. Caterpillars are very (**thirsty, greedy, hungry**) and will eat lots of leaves. When a caterpillar is fully grown it is ready for the third stage of development. It looks for a branch or leaf to attach to and then it becomes a chrysalis. The final stage of growth takes place when the chrysalis changes into a butterfly through a process called metamorphosis.

INSECTS CARD SORT

DIRECTIONS: Cut out word cards and picture cards. Glue them onto 3 x 5 notecards. Sort cards into two piles: insects and non-insects.

Grasshopper	Chameleon
Ladybug	Giraffe
Firefly	Praying mantis
Mosquito	Goldfish
Honey bee	Moose
Water strider	Salmon
Ant	Snake
Rhino Beetle	Bat
Dragonfly	Chimpanzee
Butterfly	Iguana







ACADEMIC VOCABULARY

Word:

Dictionary **Definition**:

Use the word in a complete sentence. This should help broaden your understanding of the word.

Draw a **picture** to help you explain what this word means:

INSECTS QUIZ

DIRECTIONS: Circle the answer that best completes the question/statement.

1. The insect known for its loud singing is called a...
 - A. Ant
 - B. Grasshopper
 - C. Ladybug
2. What insect is best known for its brightly colored spotted shell?
 - A. Firefly
 - B. Rhino Beetle
 - C. Ladybug
3. What is the name of one of the strongest insects?
 - A. Rhino Beetle
 - B. Praying Mantis
 - C. Dragonfly
4. What insect glows in the dark?
 - A. Firefly
 - B. Water Strider
 - C. Butterfly

5. What insect sucks blood from humans and animals?
- A. Honey Bee
 - B. Praying Mantis
 - C. Mosquito
6. What insect makes honey in its stomach?
- A. Lady Bug
 - B. Butterfly
 - C. Honey Bee
7. This insect can walk on water.
- A. Dragonfly
 - B. Water Strider
 - C. Grasshopper
8. What insect lives in colonies below ground or above ground?
- A. Praying Mantis
 - B. Firefly
 - C. Ant
9. The insect that uses camouflage to hide from its prey is called...
- A. Grasshopper
 - B. Praying Mantis
 - C. Mosquito.

10. What insect is the fastest flier?

- A. Dragonfly
- B. Ladybug
- C. Grasshopper

11. What insect is a caterpillar before it becomes a chrysalis?

- A. Butterfly
- B. Firefly
- C. Honey Bee

THE BIG WORDS QUIZ

DIRECTIONS: Circle the answer that best completes the question/statement.

1. A person who studies bugs is called an...

A. Ornithologist

B. Ichthyologist

C. Entomologist

2. The name of a group of insects with common features is called...

A. Clan

B. Hive

C. Species

3. What is the name of the hard outer shell that protects a ladybug's wings?

A. Dentin

B. Elytra

C. Scale

4. What is the name of a baby insect?

A. Larva

B. Cub

C. Infant

5. Each insect has a longer name known as its...

- A. Elongated Name
- B. Scientific Name
- C. Extended Name

6. A long nose that is used for sucking and piercing is called a...

- A. Syringe
- B. Beak
- C. Proboscis

7. What is it called when the wind or an insect carries pollen from one flower to another?

- A. Pollination
- B. Contamination
- C. Transference

8. What is it called when an insect changes the way it looks or acts in order to survive better?

- A. Restoration
- B. Classification
- C. Adaptation

9. When a group of insects such as ants live together, it is called a...

- A. Brood
- B. Colony
- C. Complex

10. An insect that hunts and eats other insects is called a...

- A. Predator
- B. Herbivore
- C. Prey

11. What is the distance from the tip of one wing to the tip of the wing on the opposite side of the insect's body is called...

- A. Circumference
- B. Radius
- C. Wingspan

12. What is it called when a caterpillar changes into a butterfly?

- A. Osmosis
- B. Metamorphosis
- C. Crystallization

QUIZ ANSWER KEYS

Insects Quiz

1. B
2. C
3. A
4. A
5. C
6. C
7. B
8. C
9. B
10. A
11. A

The Big Words Quiz

1. C
2. C
3. B
4. A
5. B
6. C
7. A
8. C
9. B
10. A
11. C
12. B