



IS THAT A BUG?

Objective:

Students will demonstrate an understanding of the basic characteristics of an insect. Students will be able to identify some insects that exist in the local desert environment.

Performance Objectives:

Strand 4 – Concept 1 PO 1, PO 2, PO 3
Concept 2 PO 2; Concept 3 PO 1, PO 2, PO 3
NGSS: KLS1.C; ES 2.E
CCSS K.W.1; K.W.8

Background Information:

The word “bug” is the common name for a group of creatures called **insects**. Insects have been around for over a million years and live in almost every place on earth. Insects are very important to our world even though we sometimes call them a “pest.” Insects carry some of the pollen that is needed for plants to grow. Some insects even help farmers by eating other insects that may harm the vegetables in the farm field. These insects are **beneficial** to all of us and the food we eat.

There are many types of insects, but they have several things in common. Insects have three body parts: the head, **thorax** and abdomen. The head is in the front of the thorax. The insect’s eyes and mouth are located in the head. Many insects have wings that are attached to the thorax, which is the middle of the body. Behind the thorax is the abdomen, which is usually the largest part of the body. Insects have

Grades: Pre K – K

Key Vocabulary:

- **Insect**
- **Beneficial**
- **Exoskeleton**
- **Adaptable**
- **Thorax**

Related Literature:

I Love Bugs

Philemon Sturges

Alpha Bugs

David A. Carter

The Bugliest Bug

Carol Diggory Shields

six jointed legs and two antennae. Insects also have an **exoskeleton**, which means their skeleton is located on the outside of their body, instead of the inside of their body, like yours. Most insects lay eggs and go through several stages of growing before they become an adult.

Insects are very **adaptable** creatures. They have learned to live in many different areas on earth, even in the hottest desert. Deserts are very dry places and often the temperature in the desert is hot. The desert of Arizona is considered an arid, dry, hot place to live. The summer can be as hot as 110 degrees in the day and a little cooler at night. The desert can be the home to insects like:

Honeybees Cicadas Dragonflies Fleas Houseflies
Grasshoppers Praying Mantis Cockroaches Earwigs

Can you name a few more insects?

Sources: University of Michigan; New Mexico State University; About.com Insects; eHow

Procedures and Pre-Activities:

1. Introduce the topic of insects. Read one or more of the related books on insects and discuss the characteristics of insects as compared to people. For example, compare legs, eyes, abdomen, head, etc.
2. Present the background information. Discuss insects in the desert and have students describe the desert in reference to where they live. Discuss the list of insects (above) and call on students to name a few more.
3. Have students color the picture of “bugs.” (There are two coloring prints from which to select.)
4. Make bug jars. This activity can be done individually or in groups.
5. Take students on a nature walk around the playground in search of “bugs.” Use magnifying glasses to help students identify the insects and look at the parts of the insects. They should be able to identify the three main body parts of the insects.

Materials:

- Printed coloring pictures
- Magnifying glasses
- Plastic jars (peanut butter jars work well)

- A large bag of googly eyes or black construction paper for making eyes
- Scissors (adults can pre-cut the eyes)
- Pipe cleaners for antennae
- Tacky glue (to attach pipe cleaners)
- Bug stickers (to decorate the outside of the jars)
- Plastic bugs

“Bug Jar”

Making a bug jar is a fun activity for most students. Students can decorate the jar with stickers and make the antennae. The eyes and antennae can be glued onto the outer rim of the jar lid. The jar needs some grass, sticks, leaves or flowers for the insects’ habitat.

While collecting the insects, students may use the lid of the jar to keep the contents of the jar intact. (If living insects are not available, plastic insects can be purchased at any craft store.)

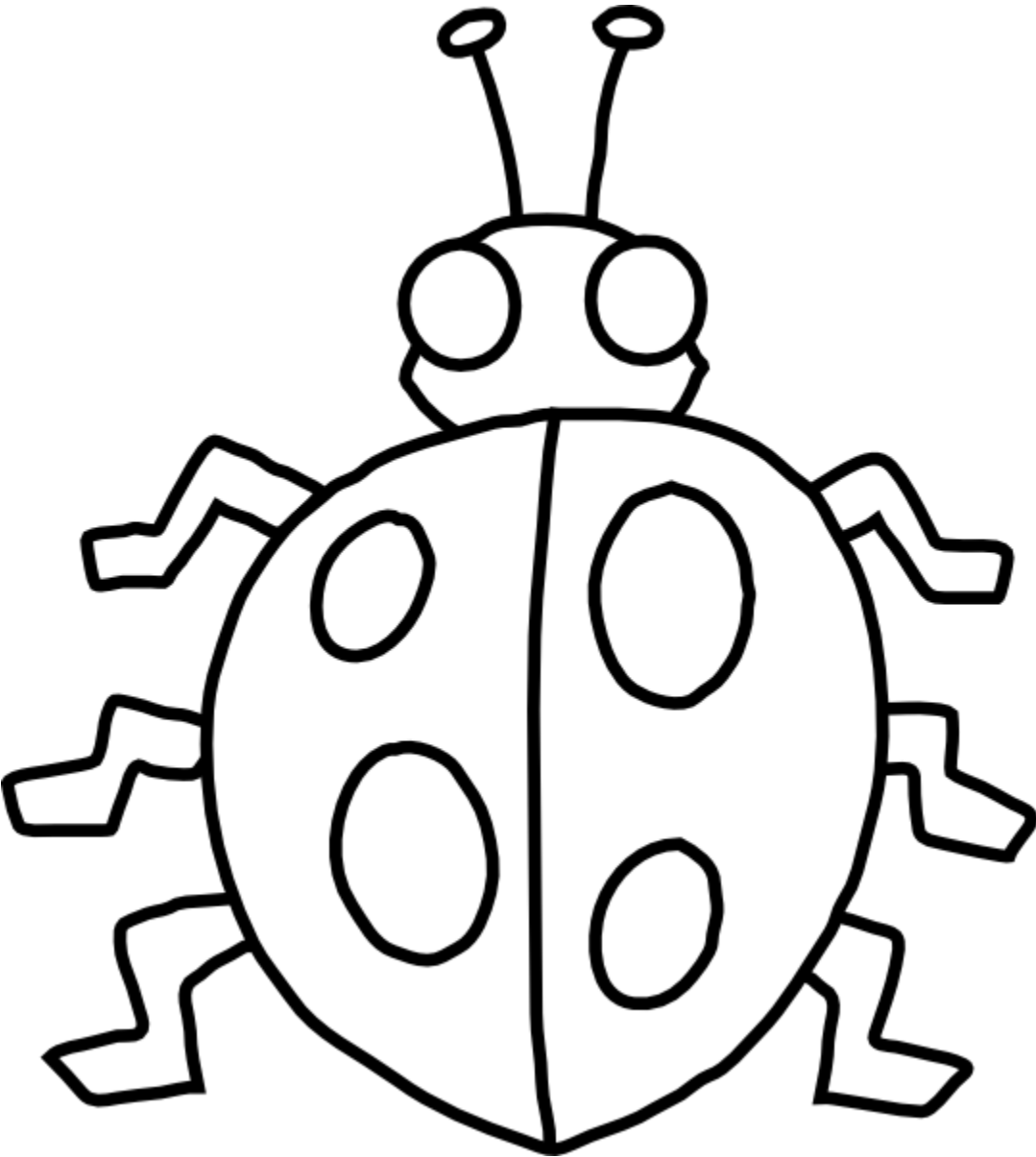
Students can use the magnifying glass to look closely at the insects and identify the parts of the insect.

Reflection and Assessment:

Participation in the learning activities and teacher observation is the final assessment.

Open-ended questions will reveal that the objectives have been met.

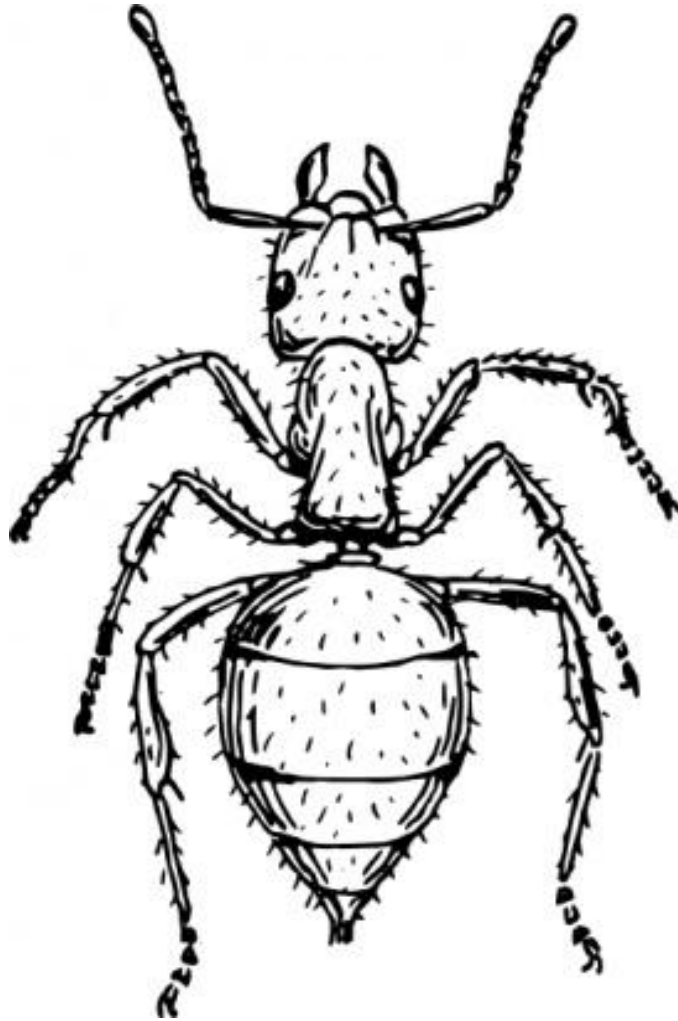
* More advanced students may be able to label the insect. (Optional)





LABEL THE INSECT

Look at the insect below and label the body parts.



Parts:

Head

Legs

Thorax

Abdomen