

THE BUG WALK

Project Skills:

- Learners will be introduced to the idea that many insects walk by using their legs to create “alternating triangles.”

Life Skills:

- Learning to learn

Academic Standards:

- Science: C.4.2. Use the science content being learned to ask questions, plan investigations, make observations, make predictions, and offer explanations

Grade Level: 3

Time: 60 minutes

Supplies Needed:

Insect Observation Activity

- Hand lens or dissecting microscopes
- Insect specimens (variety; live or replica)
- Styrofoam (various sizes)
- Dowels or pencils

The Bug Walk Activity

- Red bandanas and blue bandanas (at least three of each color for each group of five children).

BACKGROUND

Most adult insects walk with a characteristic gait. That gait is best described as an “alternating triangle.” The triangles are created by the front and rear legs on one side of the body and the middle leg on the opposite side of the body. The alternating of legs on each side of the body produces alternating triangles of support.

WHAT TO DO

Activity: Song

Sing the “Ants Go Marching” song (see “Three Body Parts” activity); add motions to the song.

Activity: Insect Observation

Set up dissecting scopes or hand lens for youth to use as they study insect specimens. Instruct the youth in the careful use of these tools. Give each child (or small group of children) an insect specimen for study. Encourage them to look carefully at their specimens for the characteristics that they have already learned. These characteristics will include the three body parts of an insect, and where the legs and wings are attached on the body.

In a group, have the youth share what they have observed. Use Styrofoam and dowels (or pencils) to create a bug thorax with six legs. Encourage them to brainstorm ideas that might explain how insects walk with all those legs. Discuss how the legs might move when the insect walks. Do they all move at once? What might happen if just the legs on one side moved at a time?

With the group, try all suggestions with the Styrofoam insect and observe the results. You may want to give the group the following hint: “If insects move three legs at a time, what are some of the ways they could do that?”

Activity: The Bug Walk!

Share with the group that scientists also wondered how insects’ legs move when they walk. One scientist videotaped insects walking and then played the video very slowly so that he could see how it was done. Tell the youth that they are going to practice walking like the insects that the scientist videotaped.

Five youth are needed to make one insect. The first youth will be the head. The next three youth are the thorax, and as the thorax, they also have the legs! Have the thorax youth put their hands on the shoulders of the child in front of them (including the “head” child).

Each “thorax” youth (child 2, 3 and 4) will have a red bandana on one leg and a blue bandana on his other leg. Use the following as a guide:

Tie a *red* bandana on:

- The left leg of the 2nd and 4th child
- The right leg of the 3rd child

Tie a *blue* bandana on:

- The left leg of the 3rd child
- The right leg of the 2nd and 4th child

The 5th child becomes the abdomen. Have her connect by putting her hands on the shoulder of the 4th child in the thorax.

Source:

- Created by Paula Rogers Huff, 4-H Youth Development Agent, UW-Extension, Oconto County

The “head” is in charge of the movement. He will call out “Red” or “Blue” to signal which foot should be lifted. Remind the participants that they shouldn’t raise their leg until the foot behind theirs goes down (into a supporting position). Now, practice! Rotate youth so that everyone gets a chance to be part of the thorax, if they wish.



Note how the colored flagging on the six “legs” of the “thorax” alternates. The child in front of the “legs” is the “head;” the child behind is the “abdomen.”

TALK IT OVER**Reflect:**

- What was it like to “walk like a bug”?
- What was the hardest part of walking together?
- What problems did you have?
- Would anything have made it easier?

Apply:

- What might happen if an insect loses a leg? Could it still do the “triangle” with three legs?

ENHANCE/SIMPLIFY**Enhance for Older Children:**

- Once the youth have mastered the basics of the “bug walk,” take a long walk around the facilities.
- Sing the “Ants Go Marching” while doing the bug walk.

Reviewed by Wisconsin 4-H Afterschool Team: September 2004.