

INCH BY INCH

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by Leo Lionni

Ages: 3-8

Themes: Animals, Measuring, Nature, Problem-Solving

Running Time: 7 minutes

SUMMARY

Just as the inchworm is about to be eaten, he tells the robin, "Don't eat me! I'm useful." And with that, the inchworm distracts the hungry bird and demonstrates his usefulness by measuring the robin's tail. Soon, the inchworm is busy measuring the different parts of many birds. Inch by inch, he finds the length of the toucan's beak, the flamingo's neck, and the heron's leg. When the nightingale demands that the inchworm measure her song, the inchworm is faced with a daunting dilemma. He quickly and cleverly thinks of a solution and then implements it, inch by inch.

OBJECTIVES

- Students will practice measuring.
- Students will identify different types of birds.

BEFORE VIEWING ACTIVITIES

Teach students how to measure with a ruler. Point out the difference between inches and centimeters. Explain that these are two different units of measurement and that in the United States, the most common unit is inches. Have students count the number of inches on the ruler. Then, provide students with a variety of objects such as books, different sized pieces of paper, different types of fruits and vegetables (such as green beans, bananas, asparagus, and carrots), and/or other classroom supplies. First, have students estimate the length in inches of each object. Then have them record their estimates on paper. Next, have students measure the objects with their rulers and compare their results to their estimates. This is a good activity for students to do in pairs so that they can help each other to use the rulers. After students have completed the activity using inches, they can measure the same objects in centimeters and compare their results.

Demonstrate the relationship between inches, feet, and yards. Use different colors of yarn, and cut into one-inch, one-foot, and

one-yard sized pieces. Glue yarn pieces onto a poster to show twelve inches in a foot, three feet in a yard, and thirty-six inches in a yard. Then, have students trace the outlines of each other's bodies on butcher paper (the teacher may need to do this if the students are young). Using these outlines, rulers and yardsticks, have students measure different parts of their bodies, such as their arms, legs, fingers, and torso. Students can also measure their whole bodies. They should write this information onto the poster of their bodies, for example, "My arm is 20 inches long," or "My arm is 1 foot and 8 inches long."

AFTER VIEWING ACTIVITIES

Have students create an "I Spy" collage poster. Using Lionni's cut-paper collage artwork as an example, students will use various green and brown papers to create a collage of the ground and grass – from an inchworm's perspective. Then, each student will make a little green inchworm and hide it among the grass and flowers in their collage. After the collages have dried, students can exchange their artwork with other students and try to locate the inchworm in each other's collages.

Collect pictures and information about different types of birds, specifically the birds featured in the book (a good resource is the *Wild Life Fact File* for birds). Read information about the different birds to the students. Discuss why the inchworm measures the parts of the birds that he does.

Guiding questions:

- What is an unusual feature or part of each bird?
- What is the longest part of each bird?

Next, students will brainstorm other animals that the inchworm could measure, such as an elephant's trunk or a giraffe's neck. Make a list on chart paper of the students' ideas. Then, ask students to make a new page for the book, *Inch by Inch*. Ask them to illustrate the page with an animal of their choice and the inchworm, and write one sentence to describe the picture. For example, "The inchworm measured the elephant's trunk."

In the spring, collect some inchworms with students. Create a habitat for them in a dry aquarium, where the students can observe them. Brainstorm with the students what the inchworms will need to live.

Guiding questions:

- What do inchworms eat?
- How do inchworms get water?
- Where do inchworms live?
- What do we need to collect from outside to make a comfortable habitat for the inchworm?

Then, collect materials such as, sticks, fresh leaves, grass, and dirt to make a habitat for the inchworm. Make sure students spray the inchworms' habitat regularly, or provide another water source. Keep the habitat in the classroom for several weeks for the students to observe.

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