



Nature-Watch Activity Kit

Dino Bonz

(Nature Watch Kit #125)

Kit Contents

	<i>Kit Size</i>	
	25	100
<i>Item:</i>	<i>Qty.</i>	
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This page includes the Next Generation Science Standards (NGSS) mapping for this kit and Science, Technology, Engineering, and Math (STEM) extensions (on back) to use in adapting and extending this activity to other subject areas.

Next Generation Science Standards Alignment

3-LS4-1. Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.

4-LS1-1. Construct an argument that plants and animals (including humans) have internal and external structures that function to support survival, growth, behavior, and reproduction.

MS-LS2-2. Construct an argument that predicts patterns of interactions among organisms across multiple ecosystems.

MS-LS4-1. Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.

MS-LS4-2. Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

**See Back for
STEM Extensions**

This Nature Watch Activity Kit contains an Instructor Manual and materials to implement the curriculum. The kit was designed to be used with adult supervision only. Unsupervised use is not recommended.



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STEM Extensions

Science

Scientists have concluded that dinosaurs and birds share a common ancestor. By looking at the T. rex skeleton and the skeleton of a bird (look online or in a book), what similarities do you see?

Transform your classroom into a T. rex habitat. Include 3-D creations or drawings of volcanoes, plants from the Cretaceous Period, and other creatures that coexisted with T. rex. Then place your T. rex skeletons throughout the room in places where they can enjoy their natural habitat.

When paleontologists go on a dig, they are organized and methodical. They divide an area into a grid of squares called quadrants and name each square (with letters A, B, C, etc. going down one side and numbers 1, 2, 3, etc. going down the other, and quadrants named A-1, A-2, B-1, and so forth). They track what is found in each quadrant. Try this out using a sheet pan of cookie bars. Follow any basic cookie bars recipe that you find, but add in a variety of mix-ins as the specimens you will search for. It is important that the mix-ins will not melt. Try things like crisp rice cereal, sunflower seeds, dry beans, raisins, etc. “Dig” using toothpicks, tweezers, and other tools you think will work well. Keep track of what you find in each quadrant, then tally up the total specimens found and compare and contrast what was found in different quadrants.

Technology

There are some very realistic-looking animation videos of dinosaurs in action. Watch some about T. rex and see what else you can learn. Pay close attention to how T. rex moves in the videos. How do the features of its body lead to these kinds of movements? How do the animators know what kind of scenery and other creatures to create for a T. rex video?

Many museums around the world offer virtual tours online that allow you to see some of the museum’s collection from your own home or classroom. Look for virtual tours of natural history museums and “wander” through the exhibits to see what else you can learn about dinosaurs.

Engineering

(Younger) Use modeling clay to create replicas of the T. rex bones you received in your kit. Display your replicas in a case and label which bones they are. What did you have to pay attention to while making the replicas?

(Older) Create replicas of the T. rex bones you received in your kit. Decide on the best material to use to make the bones and figure out a way to ensure they are accurate in size and shape. Display your replicas in a case and see if other students can guess which bone of the T. rex each one is.

Math

(Younger) Look at the Tyrannosaurus Rex Facts and Figures on page 2. Assume that an average T. rex weighed 6 tons and was 17 ½ feet tall. Do some research about large modern-day animals and find the ones that are closest in weight and height to T. rex.

(Older) Look at the Tyrannosaurus Rex Facts and Figures on page 2. Assume that an average T. rex weighed 6 tons. Based on how much you weight, how many of you would it take to add up to the T. rex’s weight? What about his height (assuming an average of 17 ½ feet)? Find out the weight of your favorite car and see how it compares to a T. rex’s weight. Find out the height of your house or school building and see how it compares to the height of a T. rex.