witf
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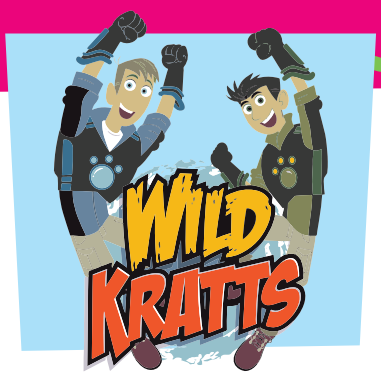
STEM ADVENTURE!
Animal Habitat



Welcome to the *STEM Adventure!*

We will be practicing language arts, science and math skills as we explore the outdoors. Be observers as we discover how animals use their environments to create their habitats. Discover more in the way you learn best with hands-on activities, on-air PBS KIDS programming and online resources. WITF and IUs 12, 13 and 15 wish you happy exploring!

Talk About It

How does an animal's structure help it eat?

Different living things have special structures to obtain food, reproduce and protect themselves. Plants have special structures like leaves, roots and stems. Animals have special structures like horns, wings, and gills. Ask your child, "What special structures do humans have?" As your child watches the programs, think about the special structures in each animal and how their structures help them get food. After watching, explain to your child that special structures (size and shape) of a bird's wings affect its speed, distance and ability to move around quickly. This is important for hunting.

Key Vocabulary: Structure

Explore On-Air

Watch an episode of *Wild Kratts*. *Wild Kratts* airs Monday - Friday on WITF TV at 7:30am and 12:30pm. You can also watch on WITFK 24/7 at 6pm and 6:30pm. The *Wild Kratts* episode you choose will help you explore animals and where they live.

Explore Online

What a Piece of Paper! - https://tinyurl.com/ycelzqne

Top Flight - https://tinyurl.com/ya2obmha

Try It Out

Design and build a paper glider to test how wing size and shape affect the distance and speed a bird can fly. Take a piece of paper and fold it in half lengthwise and then unfold it so there is a fold line down the center of the paper. Fold the top two corners down so they meet at the fold line. Fold the paper back in half along the first long fold line you made. You can design the rest of the glider anyway you want. You can cut, glue, and/or fold the sides and back to make your glider's wings and tail. Go outside and test your glider. Now, design and build a different shaped glider. Make sure the sides and back of the glider look different. Test your second glider. How did the structure of the glider affect its flight?

Materials: Paper, scissors, glue

Extension: Design and build a third glider. Fly all three gliders and create a way to measure the distance they fly. You could use footsteps, a ruler, or a large piece of string. Create a way to graph or show how far each glider travelled.

You Could Be...

You could be an aerospace engineer! An aerospace engineer, like Neil Armstrong, designs and builds airplanes and spacecrafts.

Neil Armstrong

Engineering byDesign™

The Engineering by Design program is built around state and national standards that engage learners in authentic problem/project-based learning activities that build their understanding of Math, Science, Technology, Engineering and English-Language Arts while making sense of the world around them.

PA-EbD STEM

Lincoln Intermediate Unit 12
Leadership • Expertise • Innovation

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Companion Site:
http://bit.ly/PBSiu121315