WEEKDAY WONDERS

Content developed by the Tennessee Aquarium Education Department

TENNESSEE AQUARIUM

Animal Olympics: Day 3

The Olympics in Tokyo may have been canceled, but this week we are hosting our own games. Just as humans' abilities are highlighted in the Olympics, animals have special skills as well. They use speed, balance, aim, endurance, flexibility, and many others to accomplish their daily activity—and some of their skills are pretty amazing. This week we will explore these similar abilities that help animals in day to day survival.

These curated activities are listed in a suggested sequence but may be done in the order that works best for you and your young scientists. Learn more about this series in the Introduction to Weekday Wonders.

Question of the Day

Can you hit the mark?

Daily Nature Journal

Ask your young scientist to complete a daily nature journal entry. Tell him or her to try to observe a plant or animal that s/he has not looked at closely before. For more information about nature journaling and how to complete daily entries, read the Guide to Nature Journaling.

Hitting the Target

Share the following information with your young scientist. Archerfish are a family of fish with amazing aim! The Archerfish catches insects and other small animals on land by shooting them with water droplets from its mouth. Adult Archerfish almost always get a hit on the first try, knocking insects from trees and plants that hang over the water. Once the prey is in the water the Archerfish has a snack!

Help your young scientist find some seeds, such as pumpkin, watermelon, or sunflower, or some small candies. Your scientist will also need a container, such as a bucket or large coffee container.

Mark off 1 foot distances up to 10 feet and place the container on the first mark. Tell your young scientist that s/he is going to be an Archerfish. Rather than water droplets, s/he will use the seeds or candies to

try to spit the seeds to hit the target (the inside of the container). Using tally marks, have your scientist record the number of tries it takes to hit the target at the 1 foot distance.

Once your young scientist hits the target, move the container to the second one foot mark (two feet total) and hit the target. Each time your scientist hits the target at a certain distance, have him or her move it to the next mark. Be sure s/he records the number of tries at each distance.

When your scientist grows tired of the activity, have him or her reflect on the number of tries it took to hit the target at each distance. You may wish to have him or her make a bar graph to show the results.

Variation:

Rather than having your scientist move the target container each time s/he hits it, give him or her a number of tries for each distance. For example, tell your scientist that s/he has 10 tries to hit the target at each distance. Have your scientist keep track of how many hits s/he has out of the 10 at the different marks.

Growing Up Archer

Have your scientist create a story in which a young Archerfish is trying to learn to aim a stream of water at an insect. Ask him or her to be creative and develop a written or picture story about the little fish learning to take aim. If your scientist seems to be having trouble getting started, share some or all of the following questions to help get the imagination going.

- Is the young fish able to shoot the water as far and with as much power as an adult the first time it tries?
- How does the young fish feel if it cannot shoot the water?
- How do other animals react to the young fish if it cannot—are they supportive or do they make fun of it?
- Does the young fish just figure out how to shoot the water one day or does it have to practice and get stronger, able to shoot water higher and stronger over time?

Taking Aim

Share the following information with your young scientist. A chameleon's tongue is twice as long as its body. This allows the chameleon to accurately catch its prey by quickly flicking out its tongue and snatching the insect with the sticky end.

Help your young scientist collect 5 items of similar size, such as empty soda or sport drink bottles with lids, steel cans, or yogurt cups. Have your young scientist fill each container with a small amount of water

for stability. Have your young scientist also collect 5 objects to throw, such as small balls, rocks, or nuts (acorns, pecans, or walnuts work well).

Once your young scientist has throwing objects and the containers filled with a small amount of water, have him/ her line the containers up on the ground or along a wall or rail in a straight line. Mark a spot on the ground about 8 feet away (or about twice his/ her height) from the center container. Have your young scientist stand on the mark and use the throwing objects to try to hit each of the five containers. The goal is to be accurate and hit each container once, not necessarily to knock over the container.

Have your scientist keep track of how many containers s/he was able to hit with the first 5 throws. Ask him or her to gather the throwing objects again and try multiple rounds to improve his/ her accuracy.