

WEEKDAY WONDERS



Content developed by the
Tennessee Aquarium
Education Department



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Animal Olympics: Day 5

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

Are there animals that would be good at several Olympics events?



Daily Nature Journal

Ask your young scientist to go outside to complete a daily nature journal entry. For more information about this practice, see the [Guide to Nature Journaling](#).



Hummingbird Feeder

Today's activities are going to focus on a very interesting animal—a hummingbird. These are amazing birds that are fun to watch. Help your young scientist create a hummingbird feeder to try to attract them to your yard. There are many ways to create a feeder. Three ways that require minimal materials are linked below.

- [DIY Hummingbird Feeder](#) using a drink bottle
- [Hummingbird Feeder](#) using a spice container
- [Red SOLO® Cup Hummingbird Feeder](#)

Another example is in the picture [here](#). Though there are no directions, this should be easy to design using a small jelly jar.

Once your young scientist has made the feeder, help him or her to make nectar. To do this, add 1 part sugar and 4 parts water to a saucepan. (Do *not* add red food coloring.) Boil the mixture until the sugar melts. This will also kill any bacteria. Fill the feeder with the solution and store any extra in the refrigerator. It is important to change out the solution in the feeder every other day and wash the feeder so that nothing grows in it.

Place the feeder somewhere that your young scientist can check on it often to see if it has attracted any hummingbirds. If your young scientist is fortunate enough to see a hummingbird, have him or her observe how it moves, how it eats, and how fast its wings move.

If your young scientist is not familiar with hummingbirds and they are not yet at the hummingbird feeder, share [this short video](#) trailer for a PBS Nature program. Ask him or her to observe what these birds look like when flying. If s/he is interested, you can also share this [National Geographic video](#), which gives an interesting look at both a hummingbird flying and its tongue as it drinks in slow motion.



Compete With a Hummingbird

Share the following information with your young scientist. In the Olympics, the triathlon event involves athletes running, biking, and swimming. While hummingbirds do not do those particular activities, they are star athletes with a variety of skills. Each year, ruby throated hummingbirds make some of the longest journeys over land and water. The birds must cross the open waters of the Gulf of Mexico (nearly 500 miles). To do this, they need several different athletic skills.

Have your young scientist test his/her skills against those of a hummingbird.

Speed: Hummingbirds can flap their wings around 700 times in 10 seconds. Have your scientist set a 10 second timer. Start the timer and flap his/her arms up and down (hold arms out straight and flap them up and down from the shoulder). Count each flap. How close to the speed of a hummingbird can your scientist get?

Maneuverability: Hummingbirds are able to fly up and down, forward, and even backward. Ask your scientist to move like a hummingbird by following the directions you call using the motions in the table below.

Direction to Call	Movement Scientist Makes
Forward	Move forward
Backward	Move backward
Hover	Spin in a circle
Up	Stand up on tip toes
Down	Squat down

At first go slow so your scientist has time to think about the direction. Once s/he has mastered the movements on call, speed up and change order so. Try to confuse

him/her by rapidly changing calls or calling the same direction more than once in a row.

Endurance: Have your scientist flap his/her wings (arms) at a comfortable pace. Time him/her and continue until s/he is too tired to continue. How does his/her time compare to a hummingbird which can fly for over 16 hours?



Personal Triathlon

Have your scientist imagine that s/he was designing a new Olympic event that would include three activities. Ask him or her to write about the activities that s/he would include and how the event would run.



Going the Distance

Olympic sport events often require more than one skill. Help your young scientist create an obstacle course that includes the activities from this Animal Olympics themed week. To do this, start by filling a gallon container, such as a milk jug with water. Then, include each of the following parts of the course.

- Begin with a speed interval by having your young scientist run a distance, such as two times around the house or to the end of the block and back, as quickly as possible.
- Have your young scientist jump a distance of 20 feet.
- Have your young scientist hit a target at least four out of five tries.
- Challenge your young scientist to a strength test by lifting a gallon of water five times, then switch hands and lift it five more times.

Time your young scientist the first time. Have him/ her run the course multiple times, timing each round. Does the time improve? What if your young scientist takes a break between each run?