

WEEKDAY WONDERS



Content developed by the
Tennessee Aquarium
Education Department



TENNESSEE
AQUARIUM



Inherited Characteristics: Day 1

This week, Weekday Wonders encourages young scientists to discover what makes each of them unique. Your young scientist will make observations to help him or her learn why parents and offspring often look alike but are never exactly the same. Young scientists will also get a glimpse into how environmental factors can change our genetics and the way we look.

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

What characteristics do animals have?



Daily Nature Journal

Ask your young scientists to spend some time outside completing their daily nature journal. Use the [Guide to Nature Journaling](#) to support them in nature journaling each day. They will develop a new appreciation and wonder for the world around them.



Creature Feature

An animal has specific physical characteristics that helps it survive in its habitat. In this activity, your young scientist will create a fish. Then, based on the fish's physical traits, you will have your young scientist describe the characteristics of the fish.

Locate a single six-sided die from a board game. If you do not have a die, write numbers 1- 6 on small pieces of paper. Put all six papers in a bowl or container.

Ask your young scientist to roll the die or draw a number and then draw the body shape matching the number. If he or she drew a number, make sure they return it to the bowl before the next step. Have your young scientist roll another number and draw fins on the fish. Continue to work through the columns of the table in this way. Next, have your young scientist stop and color the fish and add an eye. Then, roll one last time to add markings.

Roll	Body shape	Back (dorsal) fin(s)	Mouth	Tail shape	Markings
1	circle	tall, pointy	out in front	side triangle	one vertical stripe over eye
2 or 6	elliptical	Two, small, pointy	pointing down	deep v-shape	3 horizontal stripes
3 or 5	side triangle	tall, long, jagged	pointing up	shallow v-shape	spots
4	square with rounded corners	long arc	on the bottom of the body	paddle/ oar shape	different color tail than body

Now, have your young scientist draw a habitat scene that answers the following questions:

- Does your fish live at the top, bottom, or middle of the water column? Why?
- Does your fish eat from the top, bottom, or middle of the water column? Why?
- Does your fish swim fast or slow? Why?
- Does it need to hide? Where will be a good hiding place?
- Does it scare away its predators? How?



What's the Difference?

Find an area where your young scientist can run. Within the area, have your scientist designate spaces for numbers up to the number of people in your family. For example, if your family is a mother and three children, your scientist will need to designate areas for 1, 2, 3, and 4.

Write different characteristics of humans on slips of paper. Use the following list for examples, but add others as you think of them. You may wish to have your scientist help you brainstorm.

- Hair color
- Eye color
- Freckles
- Dimples
- Straight or curly hair
- Right- or left-handed
- Able to roll tongue
- Need glasses or not
- Allergies

When you call out a characteristic, your young scientist should first think of their own characteristic. For example, when you call out hair color, your scientist might think, "I have brown hair." Then they should quickly think of the other members of the family and decide how many family members share the same trait. Once your scientist has counted, he or she should run to the area designated for that number.

If you have multiple scientists, you can add in an element of points for getting the number right or for getting to the number the fastest if that would add to the fun.



Nature Journal

Have your young scientist locate two of the same type of living thing outside, such as a flower, tree, bird, or insect. For young scientists, they might choose two different kinds of flowers or birds. For older scientists, challenge them to find two of the same species, such as two daisies or robins.

Ask your scientist draw both individuals and label characteristics that are the same for all living things of that kind. Have your scientist use a different color to label differences between the two individuals.