

# AMOS

ASHEVILLE MUSEUM OF SCIENCE

## Learned vs. Inherited Traits and Behaviors



Andrey Prokhorov/E+/Getty Images

### Let's talk about genes!

Genetics is a very important field of biological study that tells us about heredity and variation in living organisms.

**Heredity** means that characteristics are passed from one generation to the next. Your unique genes were passed down by both of your parents, and they determine many of your characteristics – but not all!

**Variation** shows us that all genetic structures are special and there are complex processes that cause those differences.

Consider this: Do your genes determine everything about who you are?

Not quite!

You are more than your genes. In addition to inherited physical traits such as eye color and height, you also have **learned characteristics** such as the language you speak or your personality. You aren't born knowing how to ride a bicycle or tie your shoes. These skills must be taught.

This holds true for animals too! All organisms need both inherited and learned characteristics to survive in their environment.



Think about these questions:

1. What are three physical characteristics you inherited from your parents (examples: eye color, height, nose shape)?
2. What is a characteristic that you had to learn (examples: brushing your teeth, tying your shoes)?
3. What is one inherited characteristic and one learned characteristic a dog might have?
4. What are some inherited characteristics that help plants survive?

Inherited characteristics can be behaviors! These are called **instincts**. For example, birds are born knowing how to migrate.

Ready to showcase your knowledge with a fun activity? Be careful! Only animals can learn, plants rely entirely on inherited characteristics to survive.

Are these characteristics inherited or learned?

- 1) The color of a cat's fur
- 2) The shape of a leaf
- 3) A plant growing towards sunlight
- 4) Wearing green and blue clothes
- 5) Being able to roll your tongue
- 6) A dog rolling over or shaking hands
- 7) Bears hibernating through winter
- 8) Sneezing
- 9) Having good manners
- 10) Beak shape

Answers:

- 1) Inherited
- 2) Inherited
- 3) Inherited
- 4) Learned
- 5) Inherited
- 6) Learned
- 7) Inherited
- 8) Inherited
- 9) Learned
- 10) Inherited

Click below for a fun video that teaches the differences between learned and inherited traits and behaviors:

<https://www.youtube.com/watch?v=KT5BVr7vOzY>



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