

Traits Tell Stories

Use evidence to sort inherited traits from acquired characteristics.

S5L2 “Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Circle each inherited trait or characteristic, underline each acquired characteristic, and number the clues that show how you know.

Nia the River Otter

- ① At a wildlife center, keepers watched a young river otter named Nia. Nia had dense brown fur, webbed feet, and a long tail. These body traits were inherited. She received genes for them from her parents. Genes are instructions passed from parents to offspring. Nia did not need lessons or practice to grow these features.
- ② Some of Nia's characteristics were acquired, or learned from experience. A keeper tossed a ball into shallow water each day. After weeks of practice, Nia learned to push the ball toward a floating hoop. She also learned to come when she heard a whistle because the sound meant feeding time. These actions were not passed to her in genes.
- ③ Keepers use evidence to decide how a characteristic developed. They compare young animals with their parents and observe whether a trait appears before training. Nia's webbed feet match traits found in river otters, so they are evidence of inheritance. Her hoop skill appeared only after repeated practice, so it is evidence of an acquired characteristic. An inherited trait can affect how an animal moves, but practice can build a new skill.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Name two inherited traits Nia has.

2 What are two acquired characteristics Nia learned?

3 What evidence shows that Nia's hoop skill is acquired?

4 How can keepers investigate whether a characteristic is inherited or acquired?

3 YOUR TURN _____ Your own words

Choose an animal you know about. In the table, record two inherited traits and two acquired characteristics, then give evidence for each choice.

CHARACTERISTIC	INHERITED OR ACQUIRED?	EVIDENCE

PART 1 • READ AND MARK

Circle each inherited trait or characteristic, underline each acquired characteristic, and number the clues that show how you know. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Name two inherited traits Nia has.	Dense brown fur, webbed feet, and a long tail. Any two are correct.
2	What are two acquired characteristics Nia learned?	She learned to push a ball toward a floating hoop and to come when she heard a whistle.
3	What evidence shows that Nia's hoop skill is acquired?	The skill appeared only after repeated practice.
4	How can keepers investigate whether a characteristic is inherited or acquired?	They can compare young animals with their parents and observe whether the characteristic appears before training.

PART 3 • YOUR TURN (SAMPLE ANSWER)

CHARACTERISTIC	INHERITED OR ACQUIRED?	EVIDENCE
Coat color in a dog	Inherited	Genes from the dog's parents help determine coat color.
Floppy ears in a dog	Inherited	Ear shape is passed from parent dogs to puppies.
Sitting when told	Acquired	The dog learns this action through training and practice.
Fetching a toy	Acquired	The dog practices bringing a toy back to a person.

Accept accurate traits or characteristics and evidence that connects inherited traits to genes or parents, and acquired characteristics to learning, training, or experience. Students may choose different organisms and valid examples.