

Nia's Trait Clues

Sort body features by where they come from.

4.13.B "differentiate between inherited and acquired physical traits of organisms."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline inherited physical traits and circle acquired physical traits in the passage. Write I beside a clue that shows a trait is inherited and A beside a clue that shows a trait is acquired.

A Young Otter's Features

- ① An organism's physical traits are features of its body. Some traits are inherited. Parents pass inherited traits to their young through genes. A young rabbit may inherit long ears or fur color. Other traits are acquired, meaning they develop after an organism is born because of experiences, injuries, food, sunlight, or its surroundings over time.
- ② At a river rescue center, keepers watched a young river otter named Nia. Nia had webbed feet, like both of her parents. She also had thick brown fur. These body features were present when she was very young. Later, Nia got a small scar on one front paw after scraping it on a sharp rock.
- ③ Several months later, Nia spent many hours swimming in clear water and eating fish. Her webbed feet and fur color did not result from those activities. The scar formed after the scrape, so it was acquired. If Nia later lost part of her tail in an accident, that change would also be an acquired physical trait, not an inherited one.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Are Nia’s webbed feet inherited or acquired? Use a detail from the passage to explain.

2 What physical trait did Nia acquire, and what caused it?

3 Name two of Nia’s traits that did not result from swimming or eating fish.

4 If Nia lost part of her tail in an accident, would that change be inherited or acquired? Explain why.

3 YOUR TURN _____ Your own words

Choose one animal. Complete all four rows with two inherited physical traits and two acquired physical traits, then explain how you know each trait belongs in that group.

ANIMAL AND PHYSICAL TRAIT	INHERITED OR ACQUIRED?	HOW DO YOU KNOW?

PART 1 • READ AND MARK

Underline inherited physical traits and circle acquired physical traits in the passage. Write I beside a clue that shows a trait is inherited and A beside a clue that shows a trait is acquired. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Are Nia's webbed feet inherited or acquired? Use a detail from the passage to explain.	Inherited. Nia had webbed feet like both of her parents, and they were present when she was very young.
2	What physical trait did Nia acquire, and what caused it?	Nia acquired a small scar on her front paw after she scraped it on a sharp rock.
3	Name two of Nia's traits that did not result from swimming or eating fish.	Her webbed feet and her fur color did not result from swimming or eating fish.
4	If Nia lost part of her tail in an accident, would that change be inherited or acquired? Explain why.	It would be acquired because it would happen after Nia was born in an accident.

PART 3 • YOUR TURN (SAMPLE ANSWER)

ANIMAL AND PHYSICAL TRAIT	INHERITED OR ACQUIRED?	HOW DO YOU KNOW?
A dog's floppy ears	Inherited	A dog can receive this body feature from its parents.
A dog's black coat	Inherited	Coat color can be passed from parents to young.
A scar on a dog's leg	Acquired	It forms after an injury.
A dog's worn-down claws	Acquired	Claws can wear down from walking on rough ground.

Accept answers that correctly sort physical traits by whether they are passed from parents through genes or develop after birth through an experience, injury, or surroundings. For the table, require two accurate inherited examples and two accurate acquired examples with reasonable explanations.