

Teacher Guide for the Lesson on **inherited trait**

Standard:
4.13(B)

Content Objective:

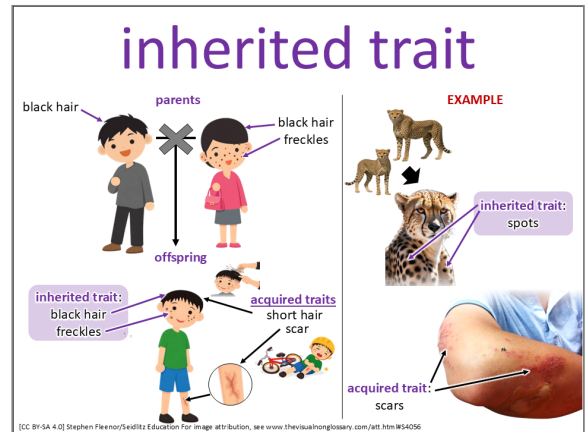
We can differentiate between **inherited** and **acquired traits** by examining how traits are passed from **parents** to **offspring**.

Language Objective: Answer the following question in complete sentences using the sentence stem and the key vocabulary of the lesson:

How would you know if a trait is an **inherited trait** or developed through interactions with the **environment**?

*I would know a **trait is inherited** if...*

Other key vocabularies: [acquired trait](#), [environment](#), [trait is inherited](#)



By studying this visual, students might:

Notice	Wonder
<ul style="list-style-type: none"> The child has similar features to the parent, like black hair and freckles 	<ul style="list-style-type: none"> How do traits get passed from parent to offspring?
<ul style="list-style-type: none"> Some traits are labeled as inherited traits 	<ul style="list-style-type: none"> Why do some traits come from parents while others do not?
<ul style="list-style-type: none"> Some traits are labeled as acquired traits, like scars or short hair 	<ul style="list-style-type: none"> Can an acquired trait ever be passed down?
<ul style="list-style-type: none"> The word offspring is used to describe the child 	<ul style="list-style-type: none"> Do all offspring look similar to their parents?

<ul style="list-style-type: none"> Animals (cheetahs) also pass down traits like spots 	<ul style="list-style-type: none"> How can you tell if a trait is inherited or acquired?
---	---

EXTENDING THE DISCUSSION

- After randomly calling on students, if there is anything from this list that was not mentioned, then ask the class, "Did anyone notice...?"
- After students have shared what they notice, ask the class, "Did anyone wonder...?" using the suggestions above or anything else you might think is interesting or relevant to the lesson.

Structured Conversation Prompts

OBSERVATIONAL	RELATIONAL	INFERENTIAL
What is an inherited trait ? An inherited trait is...	How is an inherited trait different from an acquired trait ? An inherited trait is different from an acquired trait because...	How would you know if a trait is an inherited trait or developed through interactions with the environment ? I would know a trait is inherited if...

Example Student Responses to the Observational Question

Low-Level	High-Level
An inherited trait is something you get from your parents.	An inherited trait is a physical characteristic that is passed from a parent to its offspring, like hair color or freckles.

RESPONDING TO RESPONSES

Emphasize and celebrate each student's use of the key vocabulary to support a culture of "no wrong answers."

STRUCTURING STUDENT CONVERSATIONS

Have students list observations from the visual as a warm-up, then use the Q-SSS-A process to guide small-group conversations. In the slide decks, brackets can be moved to prepare the structured conversation. In the example to the right, students will be instructed: [Q-SSS-A](#).



- To put a thumb up, then lower their hand when they are ready to answer the question
- To share with their elbow/shoulder partner, and that the student with the darkest shoe will share first
- That they will be randomly called on after the conversation

[Here is an example](#) of structuring a conversation with Q-SSS-A.

Note: the inferential question is the same as the language objective. It is recommended that students answer the inferential question in a small-group discussion before answering it individually as the closure or exit ticket of the lesson.

Structured Reading

READING PURPOSE	PAT LIST	POST-READING DISCUSSION
The purpose for reading is to understand how to tell if a trait is inherited or acquired .	<ul style="list-style-type: none"> • Traits that are passed from parent to offspring • Examples of inherited trait in humans and animals • Clues that help you tell if a trait is inherited or acquired 	<p>How can you determine whether a trait is an inherited trait or an acquired trait?</p> <p><i>I determine whether a trait is an inherited trait or an acquired trait by...</i></p>

STRUCTURING THE READING

Communicate the purpose of reading to the students and instruct them to make a note every time they see something on the PAT ("Pay Attention To") list. How you have students note items on the PAT list is up to you. This could include:




- Putting an asterisk in the margin
- Underlining text that supports the PAT list
- Putting a comment in the margin

Follow the reading with the post-reading discussion. Structure this discussion using the Q-SSS-A process just like the structured conversations in this lesson.

Note: you might find the relational question is better discussed before or after the reading. This depends on whether the relational question is directly related to the reading or might make connections across units.

DIFFERENTIATING THE READING

You will notice that three different reading passages are provided with this lesson. Look at the shapes in the top-left of each passage to determine the grade level.

BELOW GRADE LEVEL	ON GRADE LEVEL	ABOVE GRADE LEVEL
 <i>Triangle is bottom-left</i>	 <i>Square is bottom-left</i>	 <i>Circle is bottom-left</i>

In a class with students at diverse reading level proficiencies, you can give the appropriate reading passage to different students, while having all students follow the same PAT list and post-reading discussion.