Inherited vs. Acquired Traits

1. Turn in Scratch Paper from Practice Test last time (put in box)

2. Today’s learning objective: To understand the difference between inherited and acquired traits.
Acquired vs. Inherited Traits
At the end of the lesson, you’ll know...

Are the eyes on his face... inherited or acquired?
Characteristics = Traits

- You are a unique individual.
- Thousands of characteristics make you who you are.

- Characteristics are also called traits.
  - Examples: Eye color, basketball skills, height
Traits can be physical...

Physical traits
1. describe the way something looks
2. describe the internal structure

- Fur color
- Ear shape
- Number of legs
- Placement of eyes
- Brain structure
- Shape of kidneys
Traits can be **Behavioral**...

1. Describe the way something acts
2. Describe something that was learned

- Fetching things
- Hibernation
- Migration
- Language
Types of Traits

- A characteristic of an organism may be inherited or acquired.
Inherited Traits

- Inherited traits are coded in your DNA
- You received from you biological parents
- Sometimes called *instinct*
- Examples: eye color, hair color, height, blood type, birds flying south for the winter
- Because inherited traits are coded in the DNA, they *can be passed on* to the next generation
Acquired Traits

- Acquired traits develop during life (organism is not born with it)
- Not in your DNA
- Examples
  - Things you learned
    (riding a bike, reading, writing)
  - Things that happened to you
    (short hair, broken bone)
Acquired traits end with you!

- Acquired traits cannot be passed on to offspring
- Organisms develop acquired traits
- They are NOT in DNA/genes!
- Example: This dog’s puppies won’t be missing a leg just because he is!
Physical traits can be both

- Inherited
  - (eye color)

- Acquired
  - (scars)
Behavioral traits can be both

- Inherited
  - (fish swim)

- Acquired
  - (playing the piano)
Some traits are both!

- Skin color is a combination trait
  - Inherited part: Receive genes for skin color from parents.
  - Acquired part: Amount of time in the sun determines level of tan.
Let’s Practice!

For each example, identify whether you think the trait is

<table>
<thead>
<tr>
<th>Physical</th>
<th>Behavioral</th>
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<tbody>
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<td>inherited</td>
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Think:

“Was this organism programmed from birth to have this trait?” **Inherited!**

“Did the trait develop during its life?” **Acquired!**
Example: Dimples
Number 1

- Ian is bilingual.
Number 2

- You know how to swim.
Number 3

- Sarah has a hitchhiker’s thumb.
A man is blind from a firework accident.
Number 5

- Rachel can roll her tongue.
Number 6

- Riley has calluses on his feet.
Number 7

- Jason is a good cook.
Number 8

- Captain Kirk can make the vulcan hand sign.
Number 9

- Harry has a scar on his head that Voldemort gave him.
Number 10

- How tall you are.
Number 11

- A bush is trimmed into cool shapes.
Number 12

- Jarom is very good at basketball.
Number 13

- Girl with purple hair
Number 14

- You trained your dog to catch a frizbee
Number 15

- Building a nest and sitting on eggs
Number 16

- Good sense of smell
Number 17

- Pouncing on prey
Number 18

- Spots on coat
Number 19

- Butterfly migration
Number 20

- Flower petal color

INHERITED!
Number 21

- Jamison has good muscle tone
Now you try it!  Turn paper over.

**Inherited and Acquired Traits**

Name ___________________________ Per _______

**Introduction:** A trait is a characteristic of a living thing. There are inherited traits and acquired traits.

1. **Inherited traits** are characteristics that were passed down to you by a parent. Ex: Brown hair
2. **Acquired traits** are characteristics that you have learned and practiced and now have them. Ex: Being a good soccer player.

**Prediction:**
- a. What is one of your inherited traits?
- b. What is one of your acquired traits?

**Procedures:**
1. Write the names of eight people in our class on the left side of the chart (include your lab group).
2. Write down ten different traits on the top of the grid.
3. Then check each box that applies for the person.

**IMPORTANT NOTE:** Bullying is never allowed and will be strictly enforced if negative things are used.

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**Analysis:**
1. Define inherited traits –
2. Define acquired traits –
3. List 5 of your inherited traits.
4. List 5 of your acquired traits.

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- **Work quietly**
- **15 mins**
- **Due today**

Stopwatch

(After that we’ll start learning about Adaptations!)