**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Inherited Traits and Learned Behaviors**



**Inherited traits**

* Every living thing has **traits** that make it **unique.**
	+ A **trait** is a quality or characteristic of a living thing.
* **Physical features**.
	+ **The color of an animals’ fur**
	+ **The shape of a leaf**
* **Behaviors.** A behavior is a way in which living things **responds to its surroundings.**
	+ **Building a nest** (animal behavior)
	+ **Growing towards sunlight** (plant behavior)
* Organisms get traits in different ways.
	+ **Inherited traits**- traits are passed from **parent to offspring, or young** before the offspring are born.
	+ **Heredity**- the **passing of traits from parents to offspring before birth**
* Both physical features and behaviors can be **inherited.**
	+ **having four legs or fur.**
	+ **Barking**
	+ **Color of eyes and hair**
	+ **shape of your nose.**
	+ **Ability to laugh or cry (humans)**
	+ **Rolling your tongue.**



* Like animals, plants inherit ways of **responding to their surroundings**.

* + Roots grow **down toward water**.
	+ Stems **grow up towards the sun**
	+ Leaves **grow toward the light**
	+ Vines may **climb up a fence** or tree trunk.
	+ Leaves of some **plants close up if something touches it.**
* These traits are passed from **parents to offspring by genes.**
	+ **Genes** are tiny pieces of material that contain **hereditary** information
	+ Genes are located in cells and **control how traits develop in a living thing.**
	+ Because of genes, offspring **resemble their parents** in many ways.
		- Apple trees produce more apple trees
* Most plants and animals get their genes from **two parents.**
	+ **Half** comes from one parent and **half** comes from another parent.
	+ Traits are **not exactly** like those of either parent.
	+ Genes come in **pairs**
	+ Fathers have **XY** genes, and mothers have **XX** genes
	+ One gene from the mom combines with one gene from the dad

For Example:

 Father Mother

 XY XX

 Baby

 XY

**Learned Behaviors**

A **learned behavior** is a skill that an animal develops after it is born.

* Genes **do not control** learned behaviors.
* are **not passed from parents** to their offspring

Humans and animals **learn from adults and their experience.**

* Mother bear shows her cubs how to **fish or find berries.**
* Bird may teach its babies to **fly**.
* A young horse may learn to **stay away** from an electric fence.
* **Knowing a language**.
* **knowing how to ride a bike**

**Examples of Inherited and Learned Behaviors**

|  |  |
| --- | --- |
| **Inherited Traits** | **Learned Behaviors** |
| A girl had brown eyes | A girl can read Spanish |
| A boy has long fingers | A boy can play the piano |
| A bird eats seeds | A bird knows where to find a feeder. |
| A dog has pointed ears | A dog knows the sound of it’s owner’s voice. |

Like learned behaviors, some physical traits are **not inherited**.

* If you cut your hand and get a **scar**
* A bird with a **broken wing**
* A tree may be **bent** by the wind or **scarred** by lightning

**Discussion Question:**

Think about your own traits. What are three traits that you inherited? What are three of your traits that are learned behaviors?

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**Vocabulary – Words to Know**

1. **Trait:** a quality or characteristic of a living thing.
2. **Behavior**: a way in which a living thing responds to its surroundings.
3. **Inherited trait**: a trait that is passed from parents to offspring before the offspring is born.
4. **Heredity:** the passing of traits from parents to offspring before birth**.**
5. **Gene**: a tiny piece of material that contains hereditary information and control how traits develop in offspring.
6. **Learned behavior:** a skill that an animal develops after it is born.