

# HOME/SCHOOL CONNECTION

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## Genetics

*Third grade scientists should be able to understand that some characteristics of organisms are inherited from parents and, some characteristics are influenced by the environment.*

### Phenotypes

Phenotypes are the physical characteristics of organisms. These physical characteristics are passed on genetically (from a mother and father) *and* can be affected by an organism's environment.

1. A dog may have brown fur, which was a trait passed on by its parents. Is brown fur an inherited trait or not inherited? (circle one)

**INHERITED**

**NOT INHERITED**

2. That same dog may also have gotten into a fight with an alley cat, resulting in permanent scars on its face. The scars would now be considered part of the dog's phenotypes – its physical characteristics. Are scars inherited traits or not inherited? (circle one)

**INHERITED**

**NOT INHERITED**

Humans have many phenotypes that are passed on by their parents. The combinations of these phenotypes are what make each of us unique and special. 😊


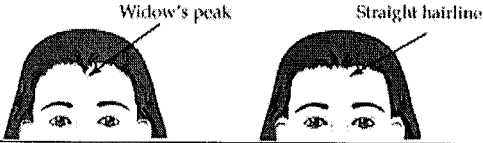
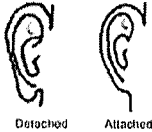






### *Directions:*

1. Use the attached chart on the back to determine which phenotypes you have.
2. Use the next sheet to observe the phenotypes of at least one member of your family.
3. Complete the Venn Diagram on the back of the second sheet to compare the physical characteristics that make you and one member of your family both similar and different.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Directions:** Go through and figure out whether you have these phenotypes. If you have the phenotypes check the yes box; if not, check no. Once you have completed your section check with other members of your family to see what you have in common or different!

**You**

Phenotypes	Yes	No
<b>Tongue Roller</b> 		
<b>Widow's Peak</b> 		
<b>Attached Ear Lobe</b> 		
<b>Hitch-Hiker's Thumb</b> 		
<b>Bent Little Finger</b> 		
<b>Mid-Digital Hair</b> 		
<b>Dimples</b> 		
<b>Short Hallux (Big Toe)</b> 		
<b>Short Index Finger</b> 		

**Family Member:** \_\_\_\_\_

Phenotypes	Yes	No
Tongue Roller		
Widow's Peak		
Attached Ear Lobe		
Hitch-Hiker's Thumb		
Bent Little Finger		
Mid-Digital Hair		
Dimples		
Short Hallux (Big Toe)		
Short Index Finger		

**Family Member:** \_\_\_\_\_

Phenotypes	Yes	No
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