

Inheritance

In science, inheritance refers to the genes that are passed on from parents to offspring. When we refer to inherited characteristics we tend to focus on physical characteristics as these are easy to spot but inherited characteristics include abilities such as taste and smell.

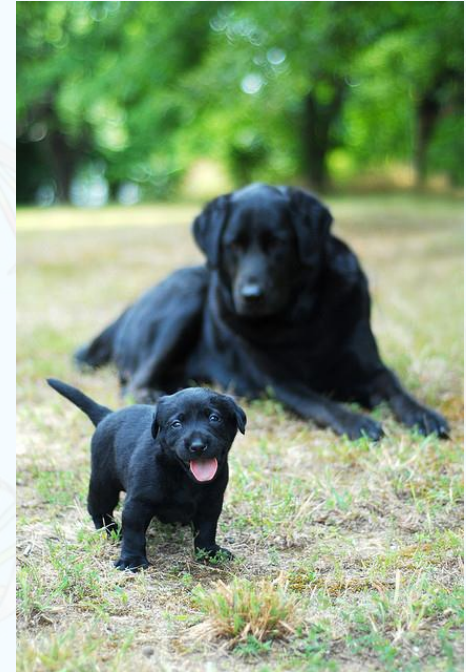


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Parents and Offspring



Match the parent with its offspring.



How did you match the parents and offspring?
What are the inherited characteristics that you could see?

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Parents and Offspring



MISCONCEPTION ALERT!

While offspring does mean child, it does not mean that you are only offspring when you are children! The inherited characteristics you gain from your parents are part of your DNA for life.

Even when you are an adult you are your parents' child!



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Inheritance and Variation

How can inherited characteristics (similarities between parent and offspring) result in variation (differences)?

Well the majority of living things are the result of sexual reproduction so they have two parents. You inherit the characteristics from both parents but the way they combine makes the offspring unique.



The inherited characteristics can combine in different ways, which is the reason why siblings inherit the same characteristics but are not identical to each other.

Even identical twins that share the exact same combination of DNA are not 100% the same! This is due to the fact that genes develop separately when the twins are embryos or during later development.

Inherited Characteristics



We often talk about inheriting characteristics from our parents. However, it is not always the case that these are passed on through DNA. Some are learnt as we grow up.

Using the Inherited Characteristics Cards place the characteristics into two groups.

Inherited Characteristics

Acquired Characteristics

Discuss each card in your group and each group member needs to give reasons for why they think it belongs to a particular category. How do they know it is inherited or acquired?

Don't move on yet!

- Complete the inherited characteristics and acquired characteristics sheet.
- You don't have to print off the sheet as you can draw a simple T table:-

- | Inherited Characteristics | Acquired Characteristics |
|---------------------------|--------------------------|
| | |

- Then write the characteristic under the correct heading.
- Finally check your answers on the following slide.

Inherited Characteristics



Inherited Characteristics



Tongue



Hair



Skin Colour



Cleft chin



Freckles



Mustache



Playing a musical instrument



Swimming



Drawing



Reading



Being friendly



Riding a bike