Evolution and Inheritance

Learning Objective:

To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.









What does it mean if you inherit something?



Discussiyoum ideas.

In science, inheritance has a special meaning:

Inheritance is the name for the passing of traits, or characteristics, from parents to offspring.



This foal has
inherited a very
distinctive characteristic
from its mother. Can
you see what it is?





Did you see it?





The foal has inherited a distinctive white facial marking from its mother.



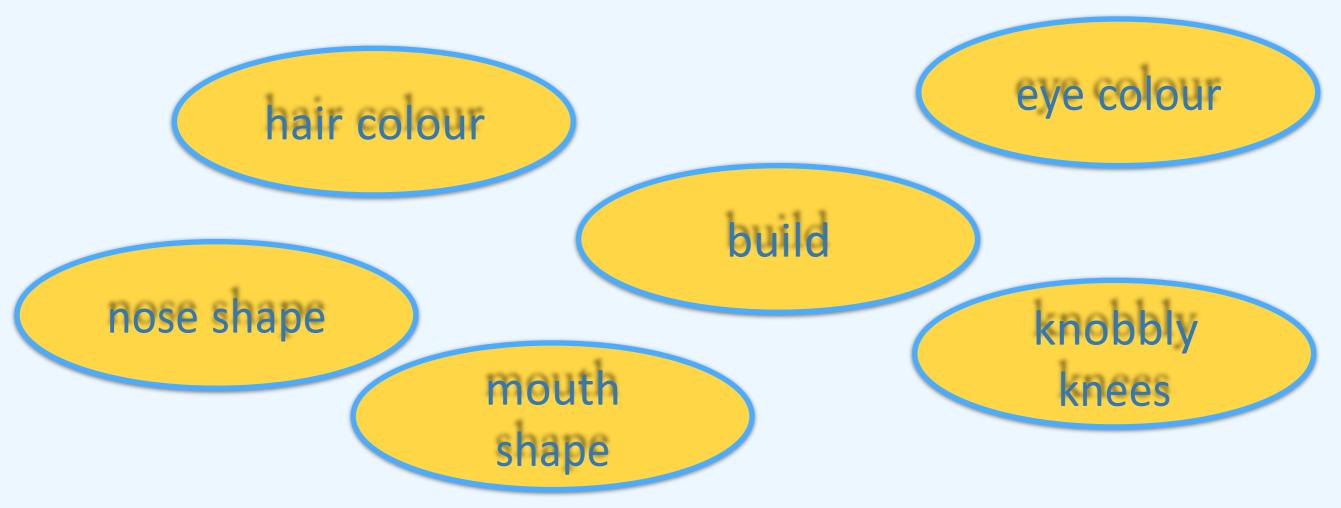
Which traits, or <u>characteristics</u>, do you think the child has inherited from his father?







Did you think of any of these?



Some inherited characteristics are weird! rolling your tongue



second toe longer than big toe earlobe joined to side of head All of these are inherited characteristics.







Discuss your ideas.



When we are talking about inheritance, the





next

word variation has a special meaning:

Variation occurs in a species from generation to generation. Although an offspring will have some similar characteristics to its parents, it will also have many different characteristics. This is called variation.





This is a normal process that occurs in the life cycles of all plants and animals.







Sheep with white wool may occasionally produce offspring with black wool.



Corn from the same parent plant can have very different colours.



Occasionally, parents produce offspring with *albinism*, a disorder which is recognisable due to the lack of pigment in the skin.

Here are just a few ways in which offspring may vary from their parents:

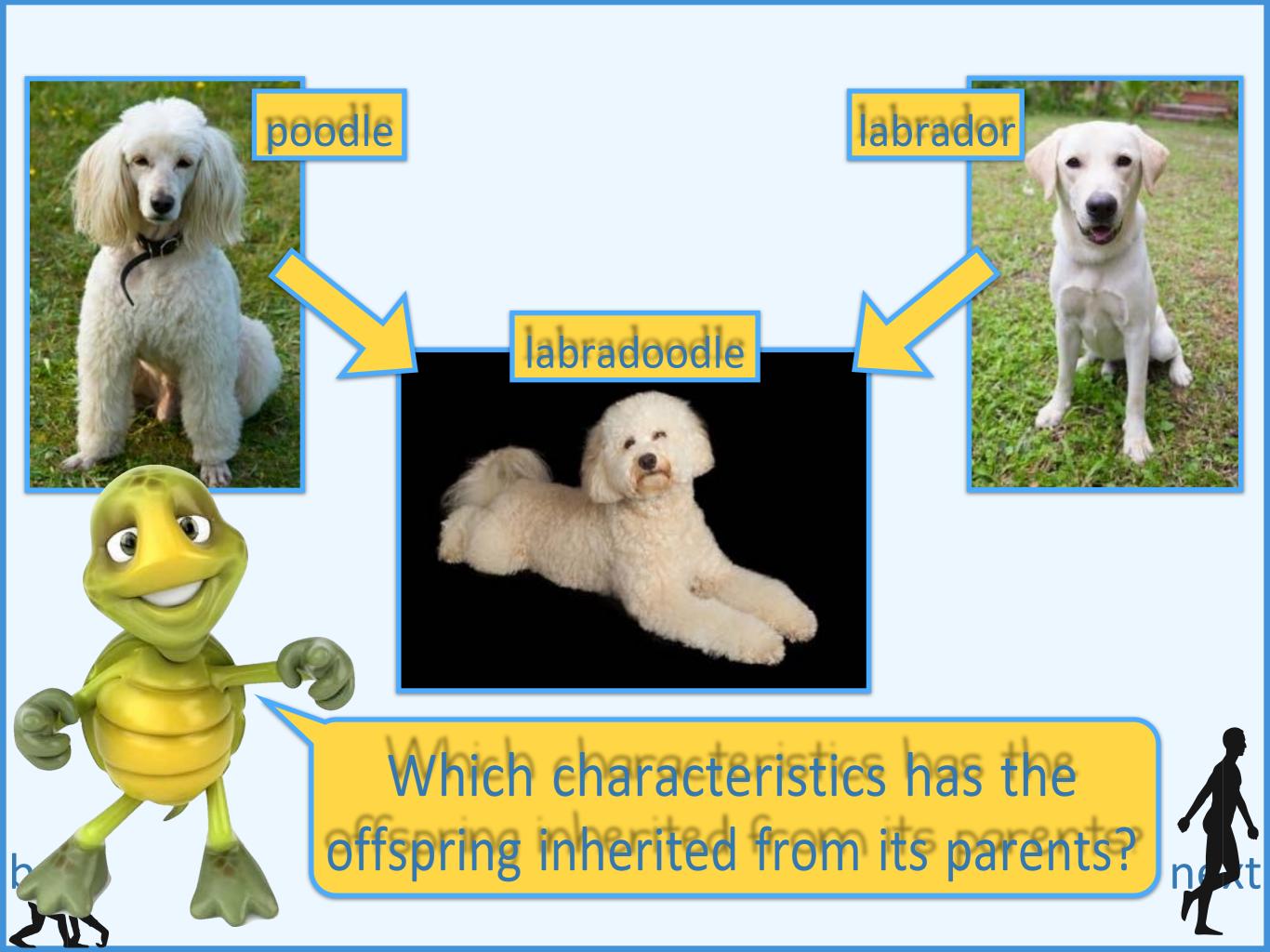


Other variations are less visible. For example, offspring may have greater resistance to a disease than their parents.

Variation can be clearly seen when plants and animals cross- breed.

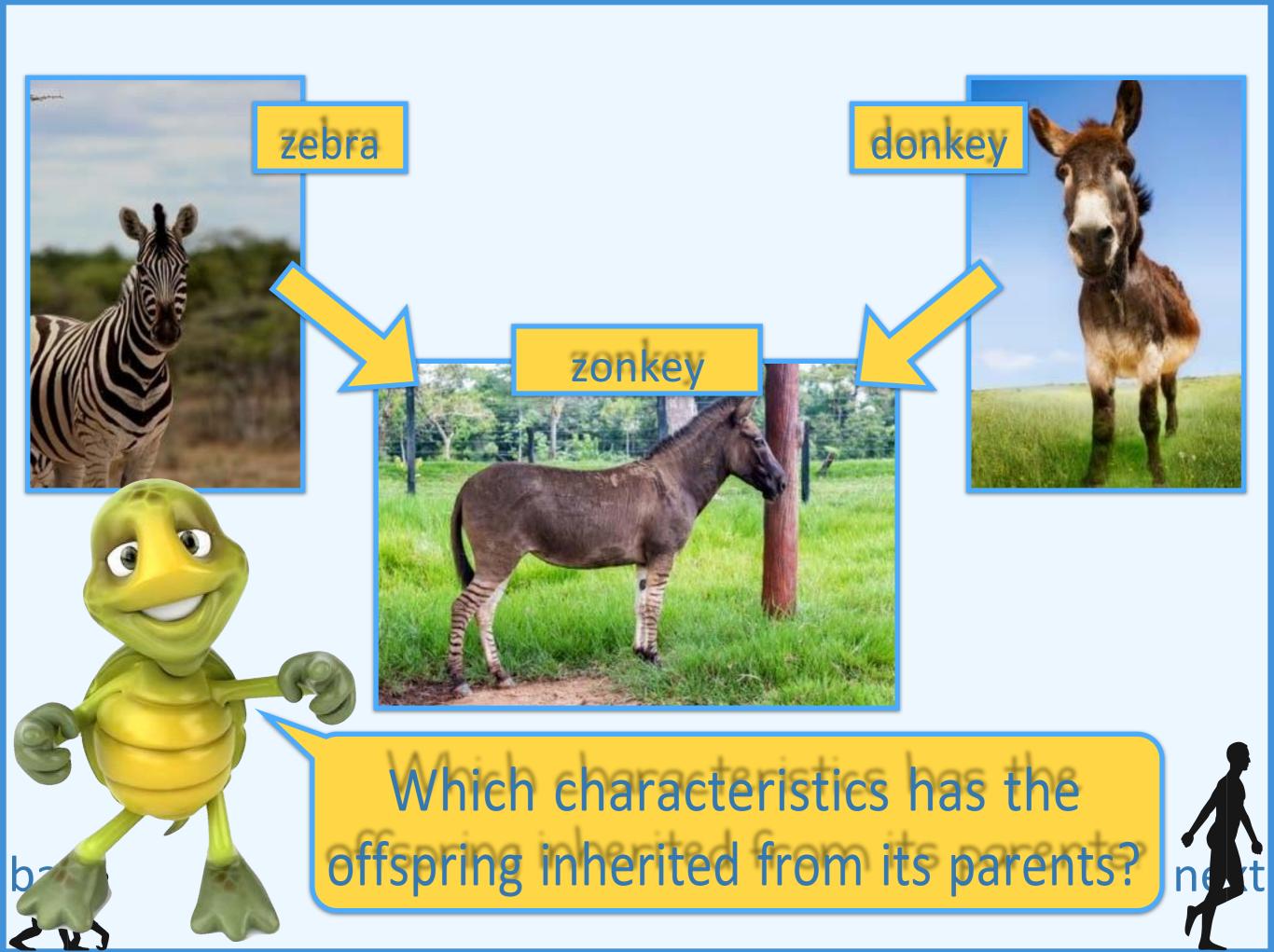






Variation can be clearly seen when plants and animals crossbreed.





Today we will be looking closely at the characteristics that offspring inherit from their parents as well as how they vary from their parents.



