

# Evolution – Inheritance

Name \_\_\_\_\_

Class \_\_\_\_\_

**What you will need for this lesson:** glue, string and a variety of materials you can find around the house like a paper plate, cardboard, foil, brown paper, baking paper.

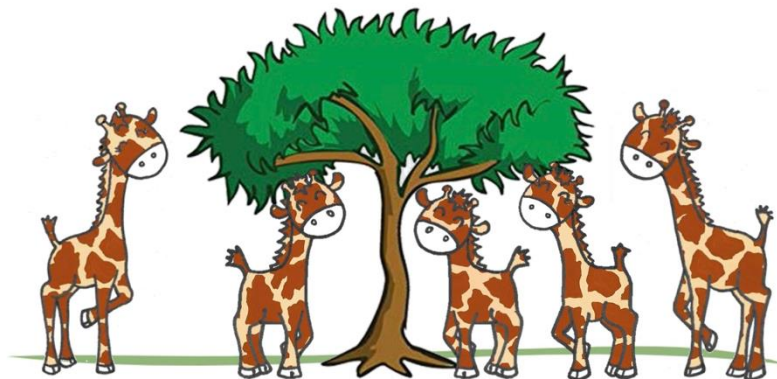
Ask an adult to help you find these items.

You will also need a pen, a pencil and if you have it, access to a computer, tablet or iPad.

## LESSON STARTER

We know that living things have offspring. The offspring of any living thing is the same species as its parent and has many similar characteristics (or features) but is not identical.

Look at the picture of the giraffes below.



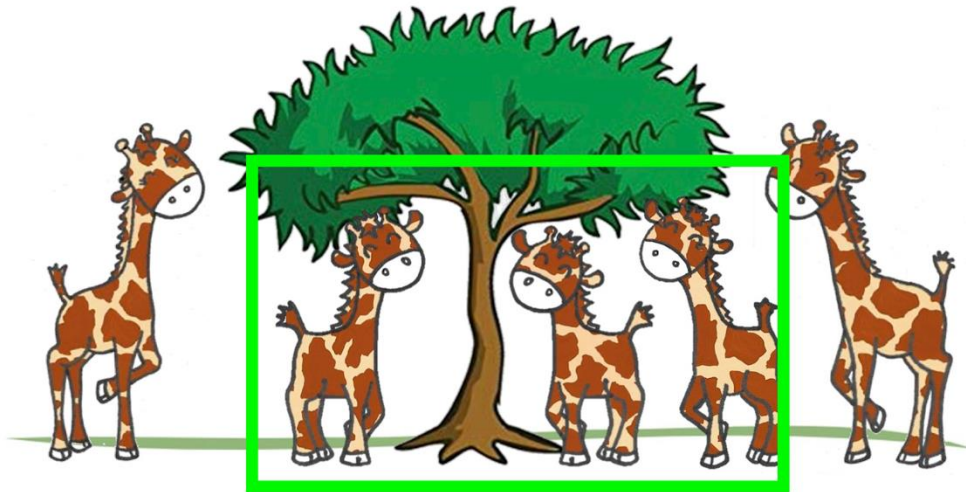
One characteristic of giraffes is that they have long necks. Why do you think this is?

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You can see the offspring (children) of the parent giraffes in the picture below.



Have the offspring got the same characteristics as their parents?

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Are they identical (exactly the same) as their parents?

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**When you've finished, watch the video to see whether you were right!**

## The Investigation

We are going to make our own species of bug! We will make their offspring and choose the characteristics we think they will share with their parents.



Let us look at the method.

1. Using a variety of materials you can find around the house, create a male and female version of an insect. You can choose the number of legs, the shape and size of the body, the colour of the eyes and whether they have wings or not.
2. Looking at your female and male insects, the challenge now is to see how many versions of the offspring(children) you can create.
3. Will the offspring have all or only some of the characteristics of the parents? Will the offspring look more like one of the parents or a combination of both?
4. Use your creativity and remember to write down the characteristics the offspring obtained from each parent.
5. Health and Safety - Be careful using the scissors when cutting the materials. Please watch out for any sharp edges and remember to ask your adult for help.

What did your bugs look like?

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What characteristics did the parents and the offspring have in common?

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## The Investigation

In the space below sketch the bugs that you created.

### WORKING SCIENTIFICALLY

Given the nature of our investigation our working scientifically focus in this lesson is that of **EVALUATION**. It does not lend itself to the planning nor presenting or analysis of data.

## EVALUATION

In the investigation, you created the parents and offspring of a species of insect. **Write the detail of each parent and offspring in the table below.**

**Analyse each of the offspring and work out which parent's characteristic is the most dominant for body shape, number of legs, fur or skin colour, number of antennae and number of eyes.**

	Body shape	Number of legs	Skin/fur colour	Antennae	Number of eyes
Mother					
Father					
Offspring 1					
Offspring 2					
Offspring 3					
<b>Dominant parent's characteristic</b> Mother, Father or None					

### EVALUATION continued

Do the offspring look like each other? \_\_\_\_\_

\_\_\_\_\_

Do the offspring look more like one parent than the other? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Is there a dominant (a particularly strong) characteristic that each offspring share?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If so, which parent do they get that from? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## The science behind the investigation

Parents pass on some of their own characteristics (features) to their offspring (children). Offspring, although they look similar to their parents, are not identical.

Lions have different characteristics – the female looks different to the male. The lion cub will have inherited some characteristics from its mother and some from its father.



Look at the pictures of the Pug, Beagle and Puggle below. The puggle is a cross between the Pug and the Beagle. Which characteristics has the Puggle received from the Pug on one hand and the Beagle on the other.





## Your challenge!

Look at the pictures of the Mr Men and Little Miss characters below.



Mr Sneeze



Mr Greedy



Mr Strong



Little Miss Trouble



Little Miss Busy



Little Miss Dotty



Mr Small



Mr Nosey



Little Miss Sunshine



Little Miss Brainy

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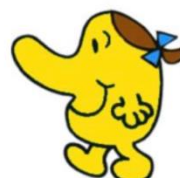
Below are the offspring of one of the Mr Men and Little Miss characters. Can you work out which Mr Men is the father and which Little Miss is the mother of each of the children?

Mother \_\_\_\_\_

Mother \_\_\_\_\_

Father \_\_\_\_\_

Father \_\_\_\_\_



Mother \_\_\_\_\_

Mother \_\_\_\_\_

Father \_\_\_\_\_

Father \_\_\_\_\_



Can you work out which features belong to the mother and the father?



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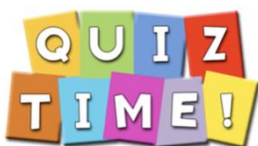
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What was your score?



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