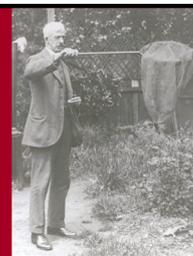




# Mr Newman's Beautiful Butterflies

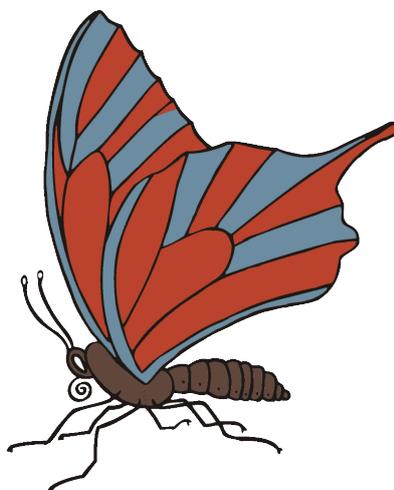
Scientific investigation



All butterflies have certain things (characteristics) in common - things like parts of the body

**Scientific investigation**

2 antennae are attached to the head and used for smell and balance	insect compound eyes are made up of many hexagonal lenses 	is the fore (front) wings	is the hind (behind) wings
Antenna	Compound Eye	Fore wing	Hind wing



Abdomen	Leg	Head	Proboscis	Thorax
is the segmented tail of an insect. It contains the heart and most of the stomach	all adult insects have six legs	contains the brain, the eyes and mouth	is the straw-like tongue adult butterflies sip liquids (nectar) with	is the main body section that the legs and wings attached to

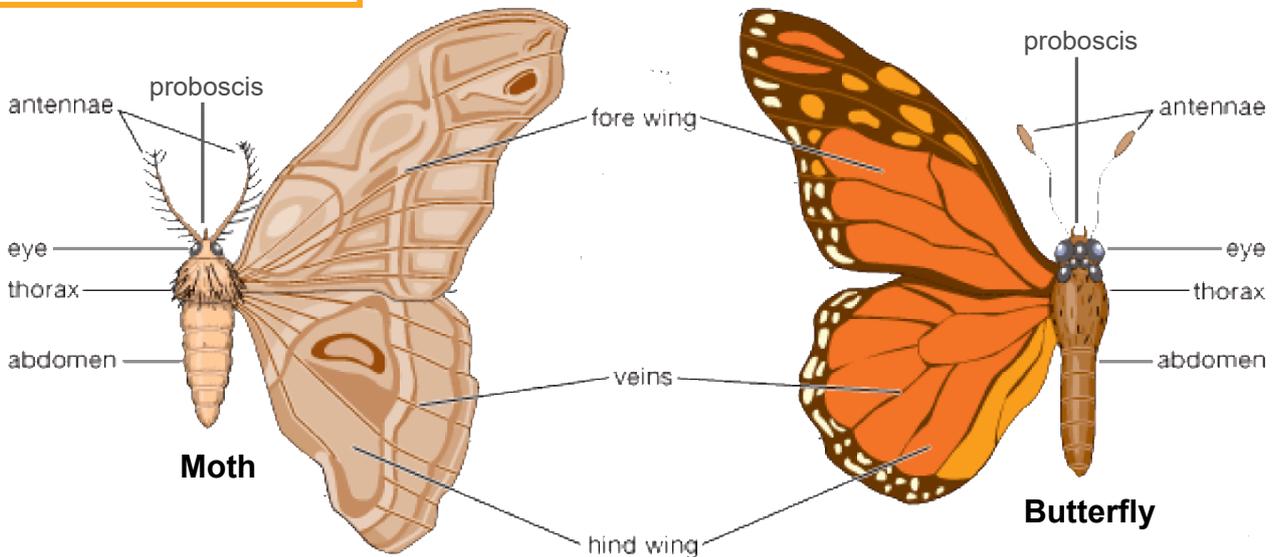
Can you label this butterfly with the important characteristics in the table above? Draw a line from each characteristic to the right place on the butterfly.

## How can you tell a moth from a butterfly?

Easy. Although they do look alike (share similarities), they have some important differences too!

**Adaptation  
butterfly or moth?**

### Shared similarities



**Differences** They have differences because they live different lives.

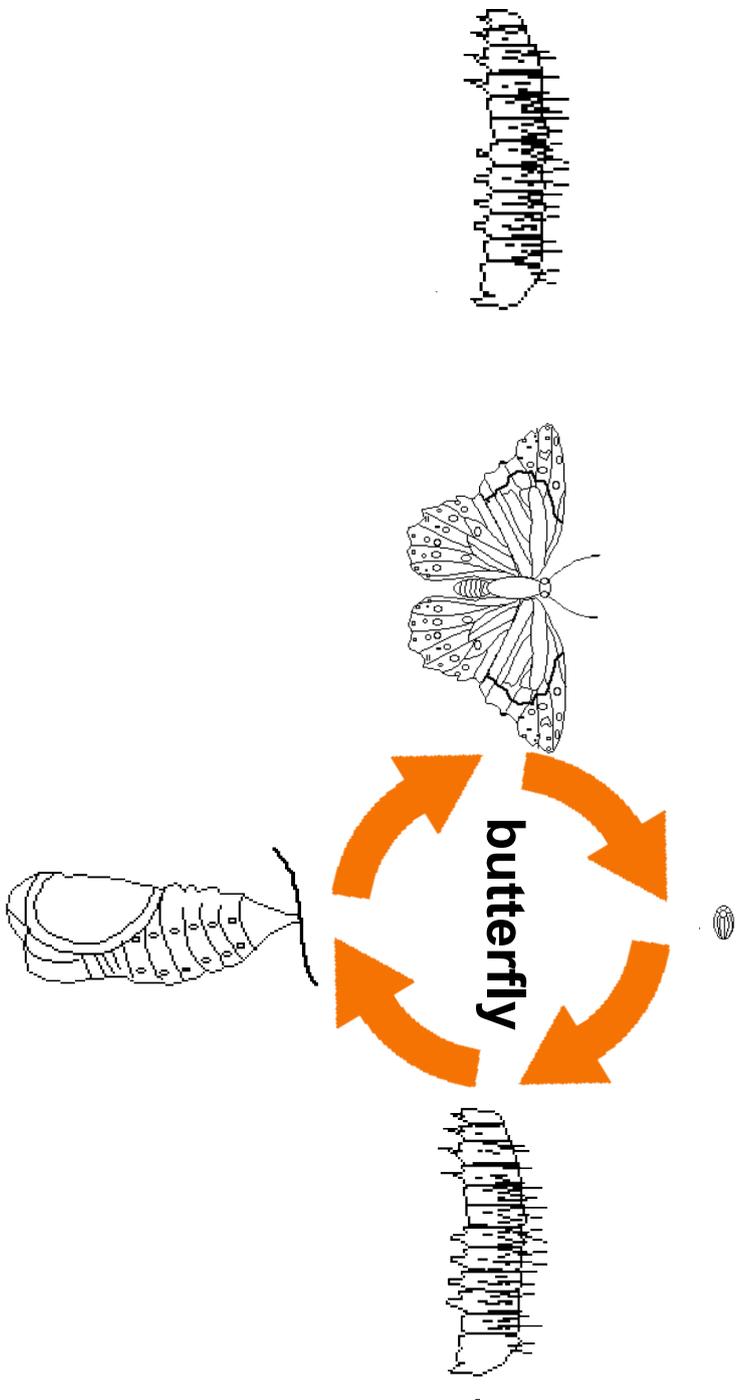
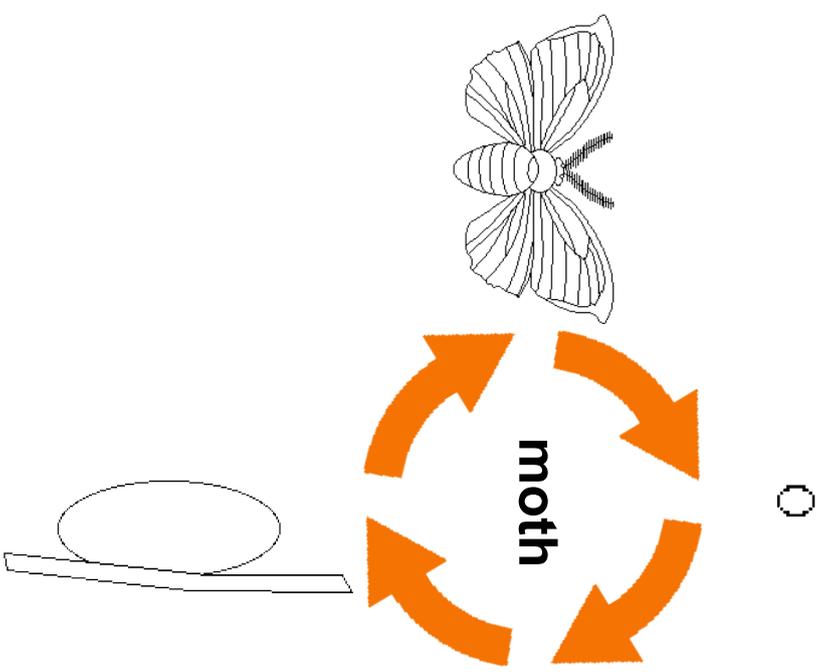
Moths 	Butterflies 
<b>feathery antennae</b>	<b>swollen tipped antennae</b>
<b>dull colours</b>	<b>bright colours</b>
<b>hairy body</b>	<b>slender body</b>
<b>rests its wings open or folded onto its back</b>	<b>rests its wings upright</b>
<b>active at night</b>	<b>active at daytime</b>
<b><u>cocoon</u> on the ground or underground</b>	<b><u>chrysalis</u> hanging from a branch</b>

Copy these shared similarities and differences into the Venn diagram on the next page



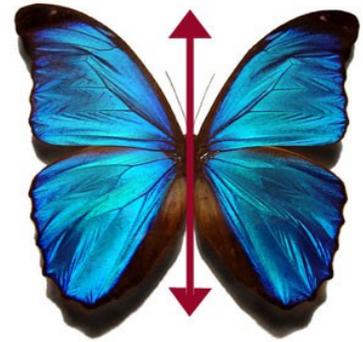
# Lifecycles

Looking at the museum specimens, can you label all the stages of the lifecycles pictured below?



## Symmetry

Look at the museum artefacts again, moths and butterflies are symmetrical. This means the whole body can be divided into equal parts - they are the same shape, size, with the same colours and detailing on both the right and left sides.



Can you draw the line of symmetry on the 2 butterflies below?



As a **lepidopterist** you need to make your own specimen collection. Yours will be made out of card and you can decorate your own butterflies however you wish. Look at the museum specimens for inspiration.

**Remember** to make sure your butterflies are the same on both the left and right sides - they must be symmetrical.

## The art of symmetry

