

<b>Lesson</b>	3 of 6	<b>Key Unit Question:</b>	What is evolution?	<b>Key Lesson Question:</b>	What is natural selection and how does this lead to evolution?
<b>Learning Objective</b>		<b>NC Links</b>		<b>Resources</b>	
I can explain how adaptations may lead to evolution.		<ul style="list-style-type: none"> <li>recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</li> </ul>		<ul style="list-style-type: none"> <li>Presentation</li> <li>Differentiated activity sheet</li> <li>Challenge activity sheet</li> <li>Charles Darwin information sheet</li> <li>Next step</li> <li>Coloured pencil crayons</li> </ul>	

## Teaching Input

- Introduce the learning objective on PPT slide 1/PDF title page.
- Thinking time -recap on previous learning – what does adaptation mean? Can you give an example of a plant or animal adaptation? (PPT slide 2-3/ PDF p1-2).
- Read the information on PPT slide 4/ PDF p3 about the peppered moth. Explain any unfamiliar vocabulary (e.g. lichen – if possible, bring in a sample of lichen to show the children). What does the word camouflage mean? Why would it be important for the moth to be camouflaged?
- Continue to read the information on PPT slide 5/PDF p4. After reading, ask the children to turn to their partner and explain why the number of peppered moths decreased. Why did the number of black moths increase? What is natural selection?
- Before reading the information on PPT slide 6/PDF p5, ensure the children understand what genes are (note the homophone jeans/genes).
- Watch the BBC bitesize video that explains what evolution is: <https://www.bbc.co.uk/bitesize/topics/zvhhvcw/articles/z9qs4qt>
- Introduce the independent activity on PPT slide 8/ PDF p7.
- At the end of the lesson, ask the children to turn to their partner and explain the following words: adaptation, evolution and natural selection. Ask the key lesson question: What is natural selection and how does this lead to evolution?

### BACKGROUND INFORMATION FOR TEACHERS

Evolutionary change is not a sudden process but happens over time. With each new generation, there are small changes due to the inexact transfer of genetic information. Some changes make it harder for the species to survive; so, it will be less likely to breed and pass on new traits. Some changes make the animal more successful, increasing the chances of breeding and thus passing on those traits.

## Differentiated Activities

### ★ (working below)

Children design a pattern on a moth that would be best suited to survive on 3 different textured trees. Adult support given.

### ★★ (working at)

Children work independently to design a pattern on a moth that would be best suited to survive on 3 different textured trees.

## Challenge activity

After reading information about Charles Darwin, children write 3 facts about his life.

## Next Step activity

Children match the words adaptation, evolution and natural selection to their definitions.

## Assessment questions

What is adaptation?  
Can you explain the process of natural selection using the peppered moth as an example?  
How does adaptation lead to evolution?  
What are genes?  
What genetic traits are passed from parents to children?

## Self assessment

I can explain the process of natural selection.  
I know what evolution is.  
I can explain how animals adapt over time and this leads to evolution.

## Key Vocabulary

- natural selection
- evolution
- adaptation
- genetic trait
- ecosystem
- species