

# Sustainable palm oil

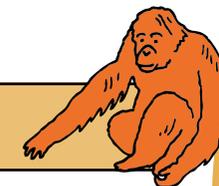
Conservation

Term: Autumn/ Spring/ Summer

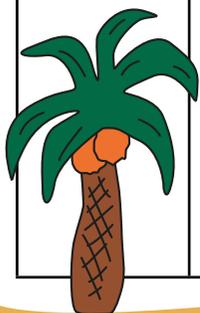
Subject: Science 1

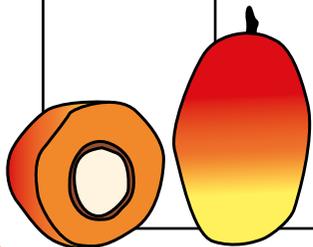
Topic: Classifying Living Things

Year: 6



	National Curriculum Links	Overview	Assessment / Questions	Resources
<p><b>LESSON</b></p>	<p><b>Living Things and their Habitats</b></p> <ul style="list-style-type: none"> <li>Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including <b>micro-organisms</b>, plants and <b>animals</b>.</li> <li>Give reasons for classifying plants and animals based on specific characteristics.</li> </ul> <p><b>Working Scientifically –</b></p> <ul style="list-style-type: none"> <li>Recording data and results of increasing complexity using scientific diagrams and labels, classification keys and tables.</li> <li>Identifying scientific evidence that has been used to support or refute ideas or arguments.</li> </ul> <p><b>Learning Objective(s)</b></p> <ul style="list-style-type: none"> <li>To use .... classification keys for living things, giving reasons for why animals belong in particular groups.</li> </ul> <p><b>Success Criteria</b></p> <p>I can:</p> <ul style="list-style-type: none"> <li>Use an animal classification key to help me group living animals typically found in the UK according to common characteristics.</li> <li>Use an animal classification key to help me group living animals typically found in the world's rainforest according to common characteristics.</li> <li>Make and use my own animal classification key.</li> <li>Give reasons for why animals belong in a particular group.</li> </ul>	<p><b>Prior learning</b></p> <p>Children should have prior learning (from year 4) about grouping living things.</p> <p>Children should have learned how to classify animals, micro-organisms and plants in to broad groups by looking at their characteristics in previous science lessons.</p> <p>Children could have looked at 'Year 4 conservation Knowledge Organiser' – specifically looking at grouping living things in a variety of ways.</p> <p>The children will have undertaken a KS2 KWL (Know, Want Learn) impact activity sheet in which they will have discussed or recorded what they already know about grouping living things.</p> <p>On the notes of some of the slides is information and recommended weblinks for where teachers could find additional information for their own subject knowledge</p> <p><b>Introduction</b></p> <p>See slide 2. Introduce the learning objective and success criteria.</p> <p>See slide 3. Before revealing the classification chart image, recap from previous lesson on 'Y6 Science 1 Classifying living things':</p> <p><i>Can you recall the two groups the animal kingdom is divided into?</i></p> <p>Hopefully they will be able to state: vertebrates and invertebrates.</p> <p><i>Can you recall what a vertebrate is?</i></p> <p>Hopefully they will be able to state: vertebrates are animals with a backbone.</p> <p><i>Can you recall what an invertebrate is?</i></p> <p>Hopefully they will be able to state: invertebrates; animals without a backbone.</p>	<ul style="list-style-type: none"> <li>Can you recall the two groups the animal kingdom is divided into?</li> <li>Can you recall what a vertebrate is?</li> <li>Can you recall what an invertebrate is?</li> <li>Are these pictures of vertebrates or invertebrates?</li> <li>Can you classify these animals using this key?</li> <li>How do you think it works?</li> <li>Can we use the same classification key to classify animals from the rainforest?</li> <li>Are these pictures of vertebrates or invertebrates?</li> <li>Can you classify these animals using this key?</li> <li>How do you think it works?</li> <li>Are these pictures of vertebrates or invertebrates?</li> <li>Can you classify these animals using this key?</li> <li>Are these pictures of vertebrates or invertebrates?</li> <li>Can you classify these animals using this key?</li> <li>What are your reasons for grouping these animals?</li> </ul>	<p><b>Prior learning resources:</b></p> <ul style="list-style-type: none"> <li>KS2 KWL (Know, Want Learn) impact activity sheet</li> <li>Chester Zoo's 'Year 4 conservation Knowledge Organiser' – specifically looking at grouping living things in a variety of ways.</li> <li>Y6_Science_Lesson_1_Classifying_Living_Things</li> </ul> <p><b>For lesson:</b></p> <ul style="list-style-type: none"> <li>Chester Zoo's 'Vertebrate simple classification key' – colour</li> <li>Chester Zoo's 'Invertebrate simple classification key' – colour</li> <li>Chester Zoo's 'Invertebrate simple classification key' – Black and white</li> <li>Chester Zoo's 'Animal classification cards UK and rainforest'</li> <li>Post it notes and large sheets of paper (or marker pen and a clear wipeable surface)</li> <li>Chester Zoo's 'Animal classification chart'</li> </ul>





See slide 4. Click on the slide to show the children just the photos of the 5 animals and the classification key.

Ask the children these questions:

*'Are these pictures of vertebrates or invertebrates?'*

Hopefully they will be able to tell you they are **vertebrates** because these animals **have** a backbone.

*'Can you classify these animals using this key?'*

*'How do you think it works?'*

Take feedback and respond appropriately.

Show the children the images of the animals, one at a time, following the questions on the key to explain how it works.

Use the key together to classify each of the pictures (fox, owl, tortoise, goldfish and toad)

See slide 5. Ask the children: *'Can we use the same classification key to classify animals from the rainforest?'*

Hopefully they will understand that world-wide animals are classified in the same way.

See slide 6. Again, ask the children:

*'Are these pictures of vertebrates or invertebrates?'*

Hopefully they will be able to tell you again that they are **vertebrates** because they **have** a backbone.

*'Can you classify these animals using this key?'*

*'How do you think it works?'*

Take feedback and respond appropriately.

Show the children the images of the animals, one at a time, following the questions on the classification key.

Using the key, help the class to classify the unnamed and unclassified pictures of the orangutan, hornbill, snake, piranha and frog.

See slide 7. Show the children the first click of the slide with title, row of 5 images and a blank classification key.

Ask the children: *'Are these pictures of vertebrates or invertebrates?'*

Hopefully they will be able to tell you they are **invertebrates**



(they have no backbone) using their knowledge

Ask the children: 'Can you classify these animals using this key?'

Take feedback and respond appropriately

Show the pictures the images of the animals, one at a time, following the questions on the classification key.

Using the key, help the class to classify the unnamed and unclassified pictures of the Spider, Dragonfly, Butterfly, Ant, Snail, Slug, Fly, Worm and Bumble Bee.

See slide 8. Ask the children:

'Are these pictures of vertebrates or invertebrates?'

Hopefully they will be able to tell you they are **invertebrates** (they have no backbone) using their knowledge

'Can you classify these animals using this key?'

Take feedback and respond appropriately

Show the pictures the images of the animals, one at a time, following the questions on the classification key.

Using the key, help the class to classify the unnamed and unclassified pictures of the Spider, Dragonfly, Butterfly, Ant, Snail, Slug, Fly, Worm and Bumble Bee.

See slide 9. Share the slide with the children which outlines the task:

Children to take the set of 'Animal classification cards - UK and rainforest' and classify them in to the right group using the given classification keys.

Differentiation:

\*Children who need more support could:

- have an enlarged blank version of this classification chart with no images, just the writing.
- work in a pair or with an adult
- or have the questions, characteristics and category headings pre-written or typed out for them

See slide 10. Children to take the set of 'Animal classification cards - UK and rainforest' and classify them into the right group

Class teacher to model how to make their own classification keys, using post it notes and large sheets of paper to draw the direction of the flow chart arrows and write the



questions. They could also refer to Chester Zoo's 'animal classification chart' to and the 'classification keys' above to support them with this task.

Children could also refer to the 'Animal classification chart' as well as copies of the different vertebrate or invertebrate 'classification keys' to help model and check.

\*Children who need more support could:

- work in a pair or with an adult
- refer to the model 'classification keys' for ideas of characteristics and categories

(N.B. washable white board pens on a wipeable surface could be a suitable alternative for drawing the flow chart arrows and putting the post its upon?).

See slide 11.

Class teacher to share the slide and ask the children individually and in small groups:

*What are your reasons for grouping these animals?*

Children to also share their reasons for grouping and classifying animals on their own classification keys.

**Note to class teacher:** Children should use their prior knowledge of classification and the 'Animal classification chart' to help them classify the animals in to either 'invertebrate' or 'vertebrate', explaining why they placed the living things on one group and not the other.

Assess children's sorting and explanations and explain to the children which animals are endangered by the deforestation caused by unsustainable palm oil production

#### **Plenary**

See slide 12. This slide reviews the learning achieved.

Review the learning objectives with the children:

Ask the children to check their work against the success criteria with another individual or pair of children. Review as a class.

#### **Possible ongoing work**

It would be helpful for the children to visit Chester Zoo's animals and take an animal classification chart or key with them to classify them in person and reinforce this in person. See lessons in other subject areas related to palm oil trees and rainforest animals.

