



# Science

Living Things and Their Habitats



# Classification Keys

# Aim

- I can create a classification key.
- I can show the characteristics of living things in a table and a key.

# Success Criteria

- I can identify the characteristics of living things.
- I can use the characteristics of living things to sort them using a classification key.
- I can show the characteristics of living things in a table.
- I can create a classification key.

# Characteristics

Today we are going to create our own branching keys to identify living things by looking at their characteristics.

The characteristics of a living thing are what make it similar or different to other living things.

All species of living thing have a unique set of characteristics.

Species with similar characteristics are put into groups. This is how we classify living things.



# Characteristics



Is awake

Has fur

Is cute

Has four legs

Has a tail

Has whiskers

Is a carnivore

Is a baby

Likes milk

Plays with string

# Characteristics



These are some of the characteristics of the domestic cat:

Has whiskers

Has four legs

Has fur

Is a carnivore

Has a tail



These are ~~not~~ characteristics of the species:

Is awake

Is cute

Likes milk

Is a baby

Plays with string

Why not?

# Characteristics



What are the characteristics of this living thing?



# Characteristics



What are the characteristics of this living thing?





# Characteristics



What are the characteristics of this living thing?



# Classification Tables



Each group will receive pictures of 8 living things.

Record which living thing has each characteristic by putting a tick or a cross in the table on your activity sheet.



## Woodland Habitat Classification

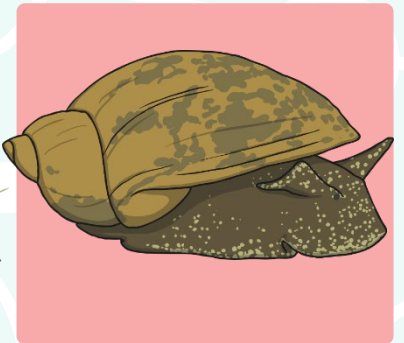
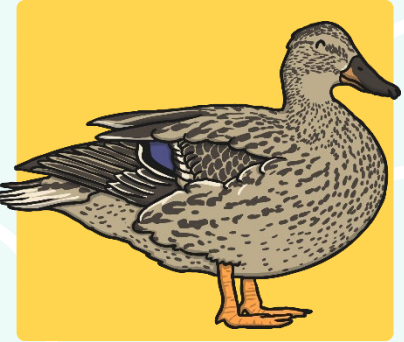
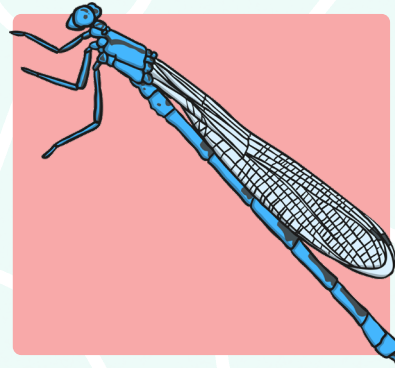
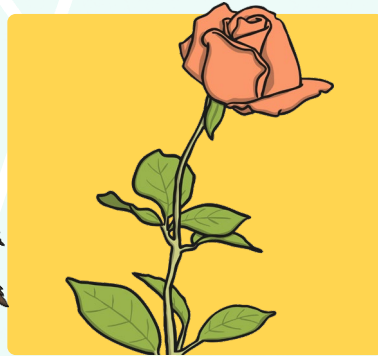
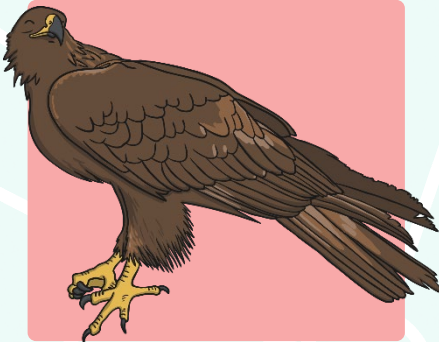
Record which living thing has each characteristic by putting a tick or a cross in the table. Write your own questions in the last two boxes of the table.

|                       | bluebell | badger | owl | woodpecker | hedgehog | oak tree | ant | earthworm |
|-----------------------|----------|--------|-----|------------|----------|----------|-----|-----------|
| Does it have wings?   |          |        |     |            |          |          |     |           |
| Is it a vertebrate?   |          |        |     |            |          |          |     |           |
| Does it have legs?    |          |        |     |            |          |          |     |           |
| Does it have a trunk? |          |        |     |            |          |          |     |           |
| Does it have spines?  |          |        |     |            |          |          |     |           |
|                       |          |        |     |            |          |          |     |           |
|                       |          |        |     |            |          |          |     |           |

# Classification Keys

You are going to create a classification key to sort your living things.

Look carefully at these living things. What question could you ask to split them into two groups?

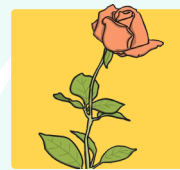
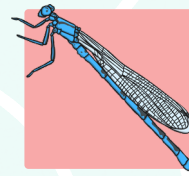
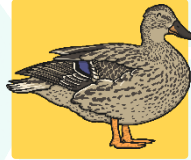


# Classification Keys

Is it a vertebrate?

yes

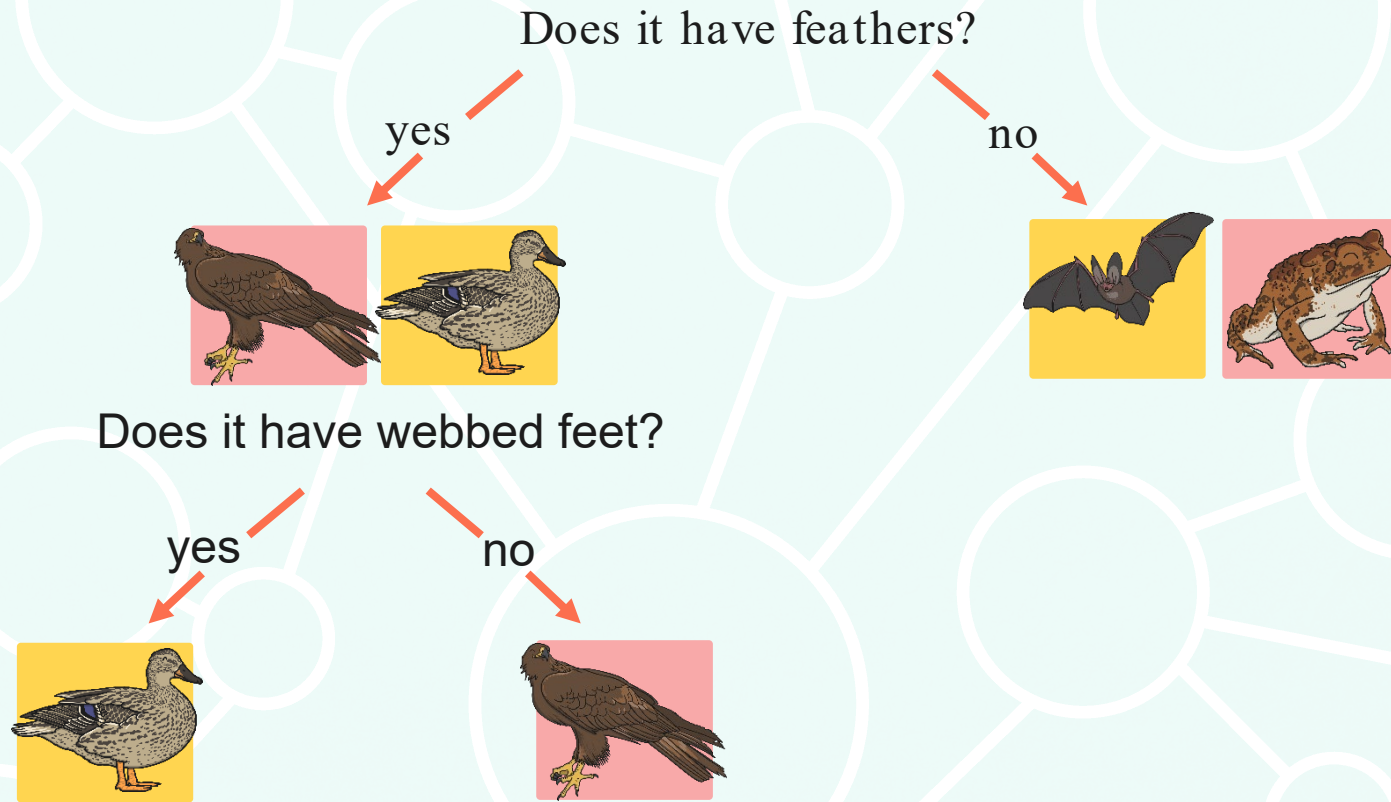
no



Choose one set of living things.

What question could you ask to split these living things into two groups?

# Classification Keys



When you reach the end of the key, move on to the next group of living things. Choose a question that lets you sort them into two sets as before.

# Classification Keys



# Classification Keys



Have a go at arranging your living things into classification keys by choosing questions that let you split each group into two.

Write your questions on sticky notes and draw arrows to show how you move down the key.

Use the questions on your classification tables as a starting point if you need to.

Be sure to test your key at the end to make sure that the path works correctly for each living thing.



# Testing and Evaluating



Follow the path that leads to each living thing.

Does each path work correctly?

Do the questions used in the key describe the characteristics of the living things?

What could make this key better?

What has been done well?





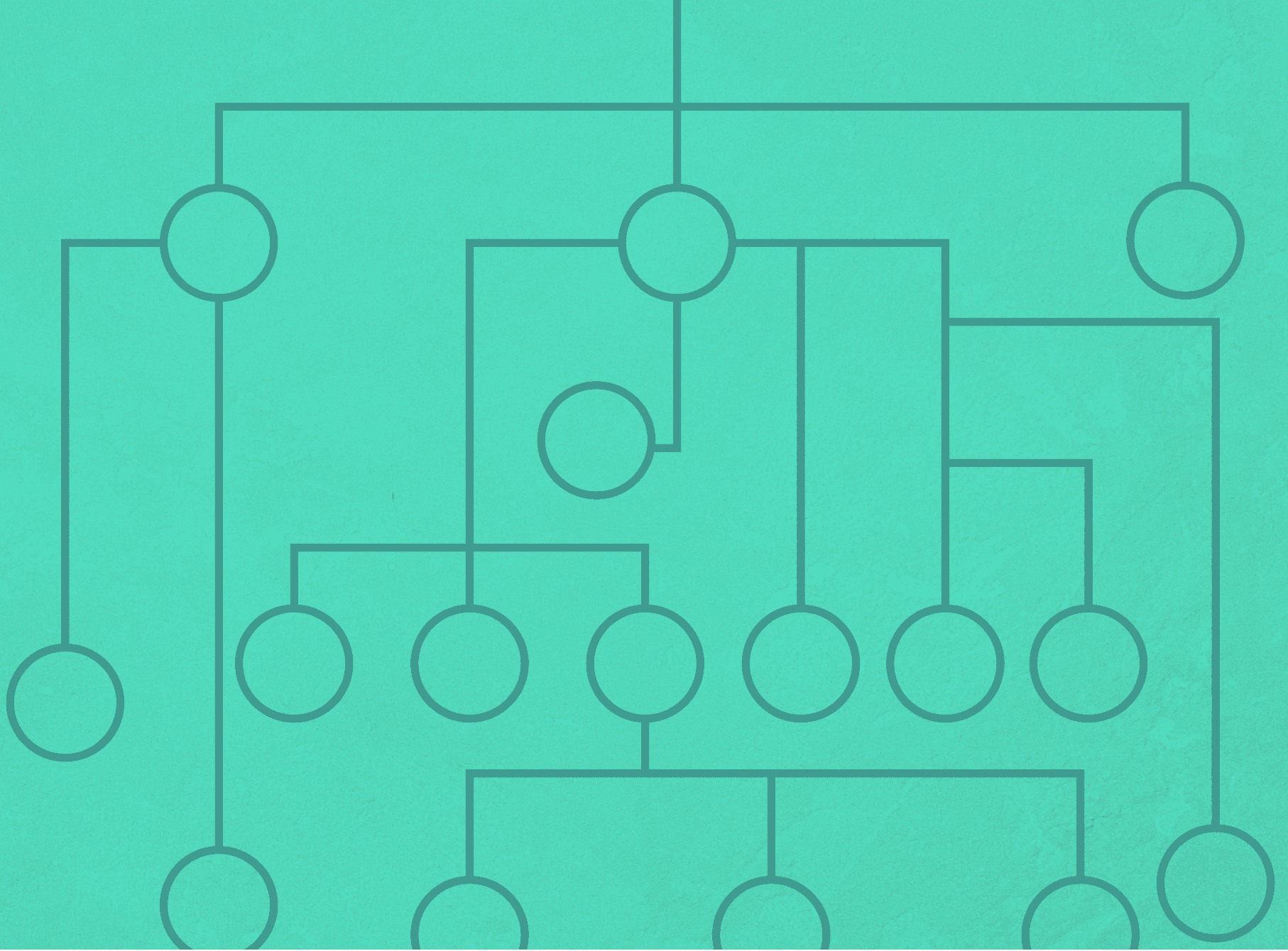
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Living Things and Their Habitats | Classification Keys

|   |  |  |
|---|--|--|
| <b>I can create a classification key.</b>   |  |  |
| I can identify the characteristics of living things.                                    |  |  |
| I can use the characteristics of living things to sort them using a classification key. |  |  |
| <b>I can show the characteristics of living things in a table and a key.</b>            |  |  |
| I can show the characteristics of living things in a table.                             |  |  |
| I can create a classification key.  |  |  |

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| I can create a classification key.  |  |  |

# Classification Keys Feedback

Follow the path that leads to each living thing. Does each path work correctly?

Do the questions used in the key lead to the characteristics of the living things?

What could make this key better?

What has been done well?

# Classification Keys Feedback

Follow the path that leads to each living thing. Does each path work correctly?

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What could make this key better?

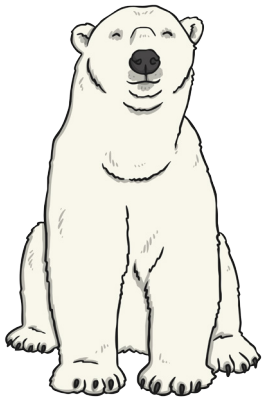
What has been done well?



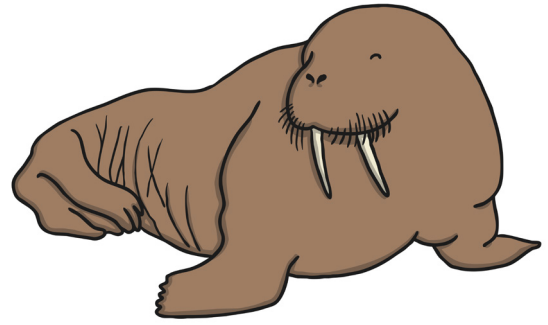
# Arctic Habitat Classification

Record which living thing has each characteristic by putting a tick or a cross in the table. Write your own questions in the last four boxes of the table.

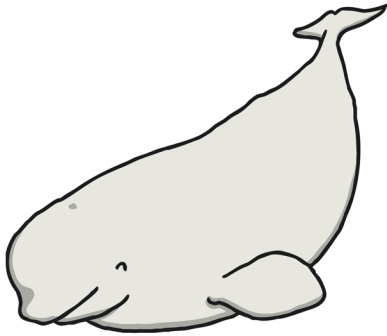
|                              | polar bear | walrus | beluga whale | narwhal | puffin | harp seal | snowy owl | reindeer |
|------------------------------|------------|--------|--------------|---------|--------|-----------|-----------|----------|
| Does it have horns or tusks? |            |        |              |         |        |           |           |          |
| Does it have feathers?       |            |        |              |         |        |           |           |          |
| Does it live in the ocean?   |            |        |              |         |        |           |           |          |
|                              |            |        |              |         |        |           |           |          |
|                              |            |        |              |         |        |           |           |          |
|                              |            |        |              |         |        |           |           |          |
|                              |            |        |              |         |        |           |           |          |



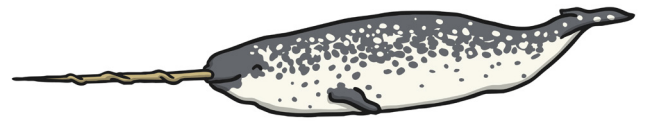
polar bear



walrus



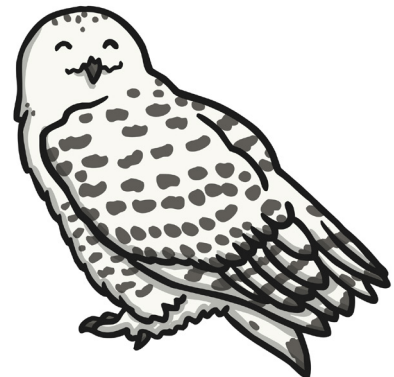
beluga whale



narwhal

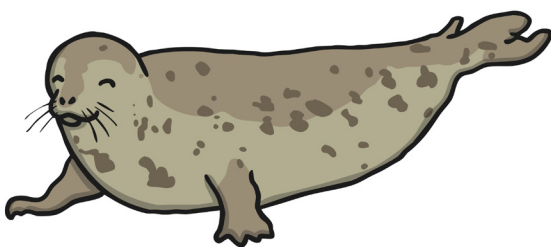


puffin

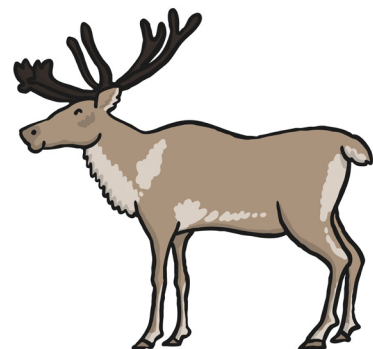


snowy owl

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harp seal



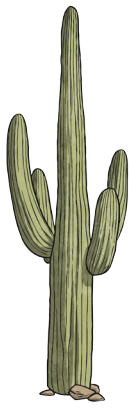
reindeer



# Desert Habitat Classification

Fill in the table with ticks and crosses to show the characteristics of each living thing.

|                           | cactus | ostrich | scorpion | succulent | meerkat | tarantula | eagle | camel |
|---------------------------|--------|---------|----------|-----------|---------|-----------|-------|-------|
| Is it a plant?            |        |         |          |           |         |           |       |       |
| Does it have a tail?      |        |         |          |           |         |           |       |       |
| Is it a vertebrate?       |        |         |          |           |         |           |       |       |
| Does it have spines?      |        |         |          |           |         |           |       |       |
| Does it have a long neck? |        |         |          |           |         |           |       |       |
| Does it have feathers?    |        |         |          |           |         |           |       |       |
| Does it have hooves?      |        |         |          |           |         |           |       |       |



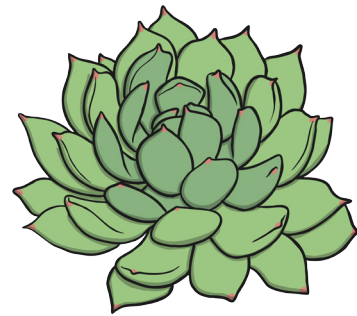
cactus



ostrich



scorpion



succulent

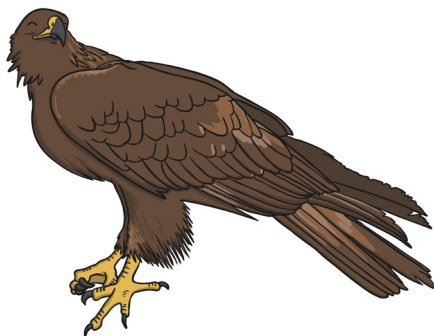


meerkat

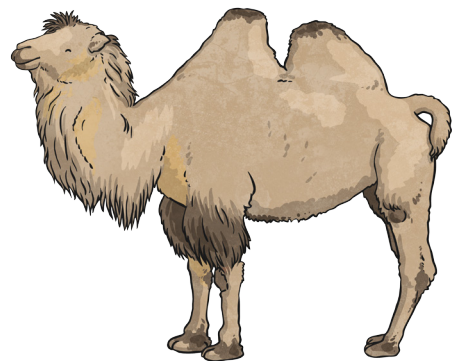


tarantula

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eagle



camel



Is it a plant?

Does it have a long neck?

Does it have a tail?

Does it have feathers?

Is it a vertebrate?

Does it have hooves?

Does it have spines?

Yes

Yes

Yes

Yes

Yes

Yes

Yes

No

No

No

No

No

No

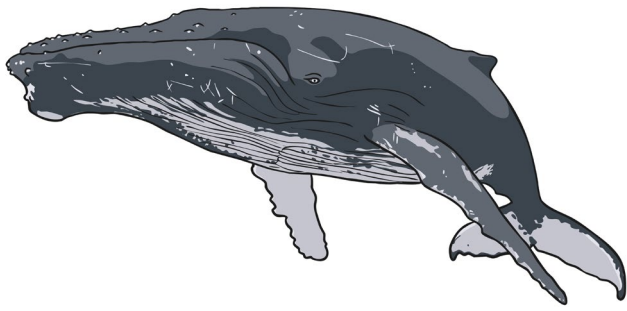
No



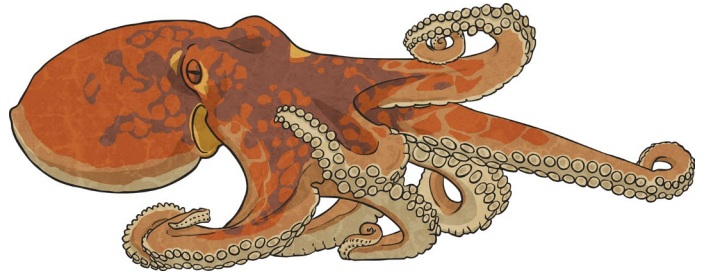
# Ocean Habitat Classification

Record which living thing has each characteristic by putting a tick or a cross in the table. Write your own questions in the last four boxes of the table.

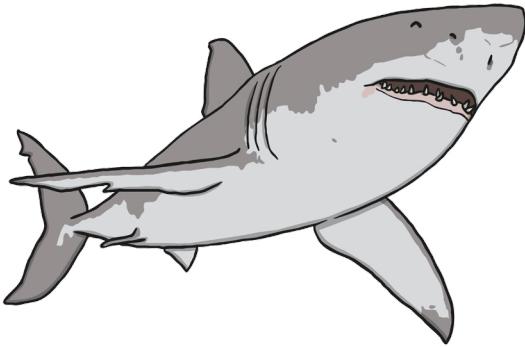
|                       | blue whale | octopus | shark | seahorse | crab | dolphin | sea turtle | clownfish |
|-----------------------|------------|---------|-------|----------|------|---------|------------|-----------|
| Does it have legs?    |            |         |       |          |      |         |            |           |
| Does it have a shell? |            |         |       |          |      |         |            |           |
| Does it breathe air?  |            |         |       |          |      |         |            |           |
|                       |            |         |       |          |      |         |            |           |
|                       |            |         |       |          |      |         |            |           |
|                       |            |         |       |          |      |         |            |           |
|                       |            |         |       |          |      |         |            |           |



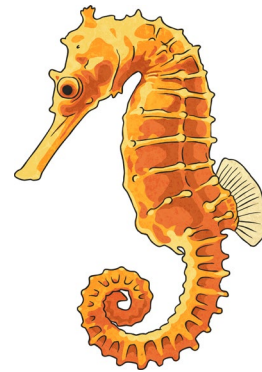
whale



octopus



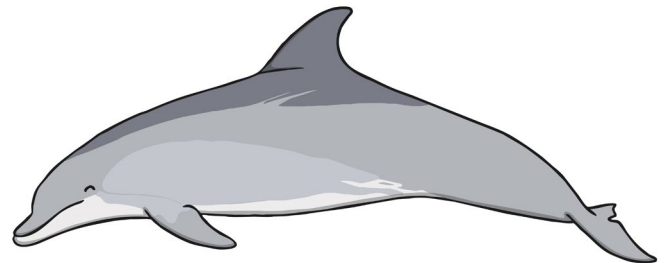
shark



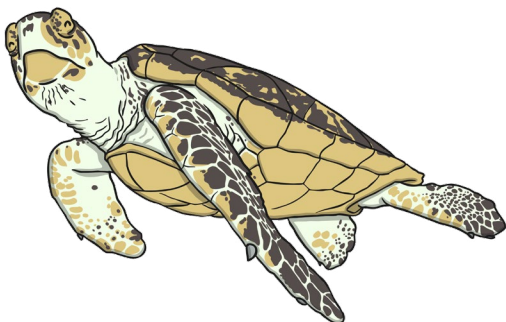
seahorse



crab



dolphin

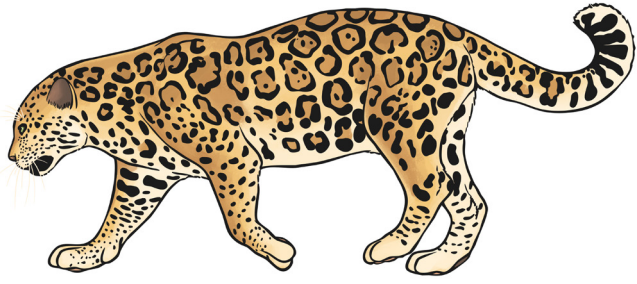


sea turtle

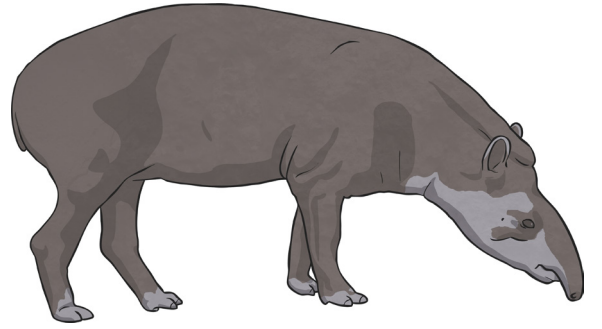


clownfish





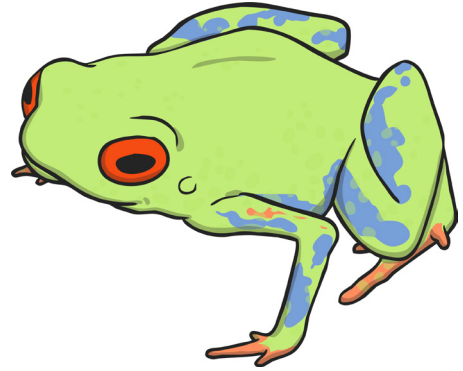
jaguar



tapir



caiman



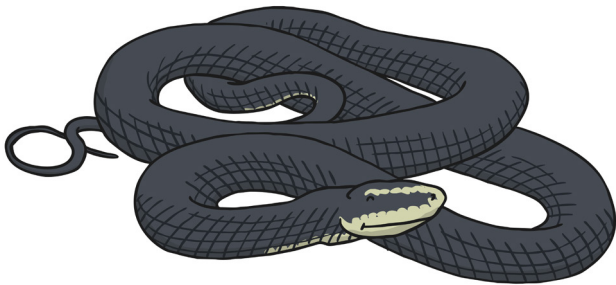
tree frog



toucan



fruit bat

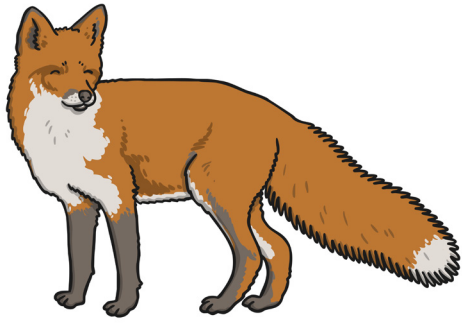


anaconda



hummingbird





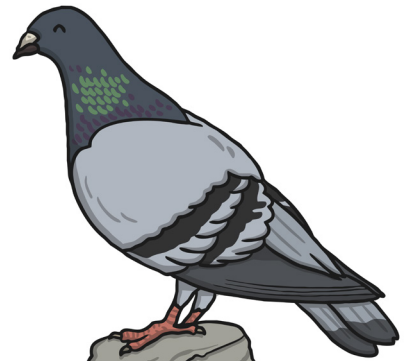
fox



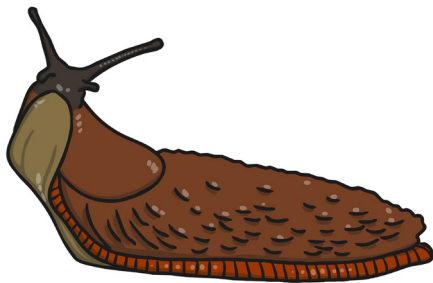
rat



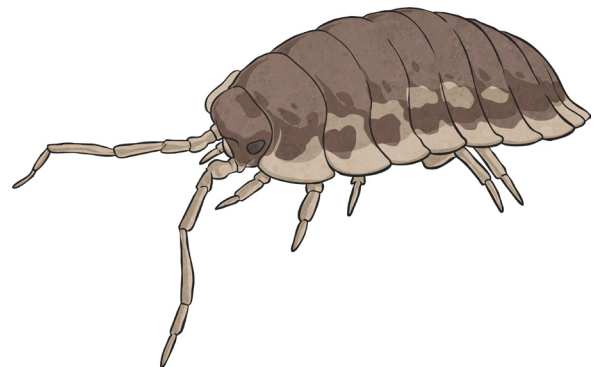
squirrel



pigeon



slug



woodlouse



dandelion

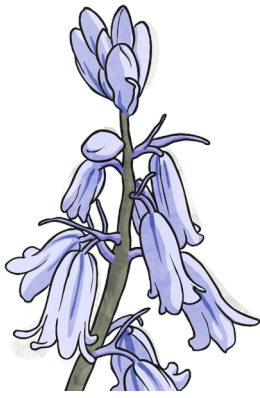


nettle

|                      |     |                               |     |
|----------------------|-----|-------------------------------|-----|
| Is it a plant?       |     | Does it have a bushy tail?    |     |
| Has it got legs?     |     | Does it have feathers?        |     |
| Is it a vertebrate?  |     | Does it have a yellow flower? |     |
| Does it climb trees? |     | Yes                           | Yes |
| Yes                  | Yes | Yes                           | Yes |
| Yes                  | No  | No                            | No  |
| No                   | No  | No                            | No  |



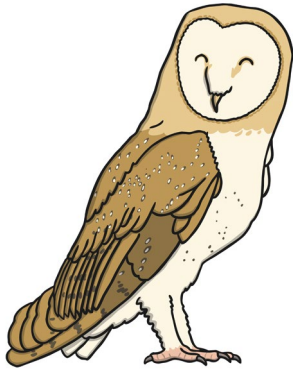




bluebell



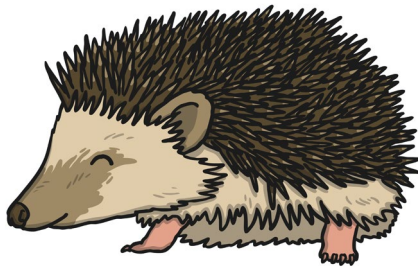
badger



owl



woodpecker



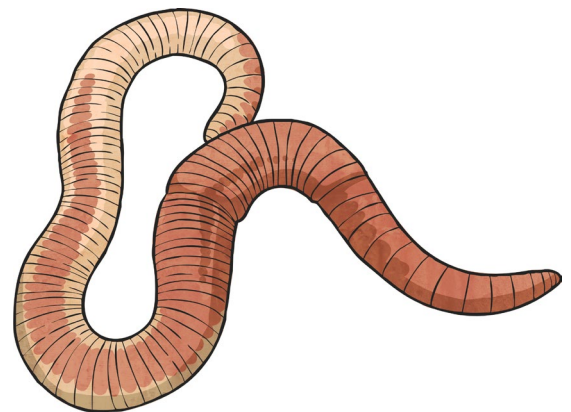
hedgehog



oak tree



ant














earthworm

# Living Things and Their Habitats: Classification Keys

|   |  |  |
|---|--|--|
| <p><b>Aim:</b><br/>To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment by creating classification keys.</p> <p>I can create a classification key.</p> <p>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions by creating tables and keys showing the characteristics of living things.</p> <p>I can show the characteristics of living things in a table and a key.</p> | <p><b>Success Criteria:</b><br/>I can identify the characteristics of living things.</p> <p>I can use the characteristics of living things to sort them using a classification key.</p> <p>I can show the characteristics of living things in a table.</p> <p>I can create a classification key.</p> | <p><b>Resources:</b><br/><a href="#">Lesson Pack</a></p> <p>Mini whiteboards and pens – class set</p> <p>Sticky notes</p>  |
|   | <p><b>Key/New Words:</b><br/>Characteristic, classification, key.</p>  | <p><b>Preparation:</b><br/><a href="#">Classification Keys Feedback Activity Sheet</a> - 1 per group</p> <p><a href="#">Classification Activity Pack</a> - 1 per group</p> |

**Prior Learning:** Children will have previous experience of using classification keys in lessons 2 and 3.

## Learning Sequence

|  |   |   |
|--|---|---|
|  | <p><b>Characteristics:</b> Revise the term 'characteristic'. In pairs, children sort a list of descriptions of a kitten into those that are characteristics of the domestic cat species and those that are not. Discuss the difference between these, explaining that the characteristics of a living thing are statements that are always or typically true of the species, not statements that apply to an individual of the species under particular circumstances. Look at the examples of living things on the <a href="#">Lesson Presentation</a>. In pairs, children list the characteristics of some living things on a mini whiteboard, then share with the rest of the class. Address misconceptions.</p>   |  |
|  | <p><b>Classification Tables:</b> Split the class into ability groups of 3 or 4 children. Distribute the differentiated <a href="#">Classification Activity Packs</a>. Each child should fill in the differentiated <a href="#">Habitat Classification Activity Sheet</a> by filling in ticks and crosses to show which living thing from their cards has each characteristic.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Children fill in a classification table where all questions have been provided.</p> </div> <div style="text-align: center;">  <p>Children choose 2 questions to finish their classification tables.</p> </div> <div style="text-align: center;">  <p>Children choose 4 questions to finish their classification tables.</p> </div> </div> |  |
|  | <p><b>Classification Keys:</b> Use the <a href="#">Lesson Presentation</a> to explain how to construct classification keys. Working in small groups, children use the living things cards from the <a href="#">Classification Activity Packs</a> to construct classification keys. Children generate appropriate questions, write them on sticky notes and organise their cards and questions into position to construct a working key. Children may use the questions on their <a href="#">Habitat Classification Activity Sheets</a> as a starting point if they wish (question cards have been included for use with the LA Activity Packs if appropriate).</p>  |  |
|  | <p><b>Testing and Evaluating:</b> Still working in their groups, children test and evaluate the classification key produced by another group, checking that the pathway for each living thing works correctly, and that appropriate questions have been used. Children write their feedback on the <a href="#">Classification Keys Feedback Activity Sheet</a>.</p>   |  |

## Taskit

**Computerit:** To accompany this lesson, practice constructing classification keys using software such as 'Ask Oscar' or 'FlexiTree'.

**Classifyit:** Classification isn't only for living things! Encourage children to think of other things they can classify using branching keys, for example food, shapes, toys or numbers.

**Playit:** Play this [game](#) to sort the deadly animals into groups based on their characteristics.