

What should I already know?

- Animals can be grouped into **vertebrates** (and then further into fish, reptiles, amphibians, birds and mammals) and **invertebrates**
- Animals can be grouped into **carnivores**, **herbivores** and **omnivores**
- The differences between the teeth of **carnivores** and **herbivores**.
- The names of some common wild and garden plants and **deciduous** and **evergreen** trees.
- Examples of **habitats** (including **microhabitats**) and the animals and plants that can be found there.
- Living things depend on each other to **survive**.
- How **food chains** and food webs work.
- How land use has changed over time and the effects this has on the **environment** (e.g. **urban** development)

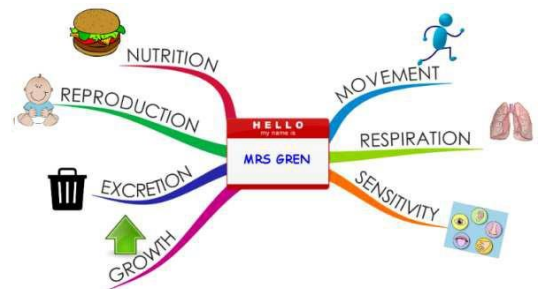
Vocabulary

| | |
|--------------------|---|
| biomes | a natural area of vegetation and animals |
| carnivore | an animal that eats meat |
| classification key | a system which divides things into groups or types |
| criteria | a factor on which something is judged |
| deciduous | trees that lose leaves in the autumn every year |
| environment | all the circumstances, people, things, and events around them that influence their life |
| evergreen | a tree or bush which has green leaves all the year round |
| excretion | the process of eliminating waste from the body |
| food chain | a series of living things which are linked to each other because each thing feeds on the one next to it in the series |
| habitat | the natural environment in which an animal or plant normally lives or grows |
| herbivore | an animal that only eats plants |
| invertebrate | a creature that does not have a spine, for example an insect, a worm, or an octopus |
| life processes | There are seven processes that tell us that living things are alive |
| microhabitat | a small part of the environment that supports a habitat , such as a fallen log in a forest |
| minibeast | a small invertebrate animal such as an insect or spider |
| nutrition | the process of taking food into the body and absorbing the nutrients in those foods |
| omnivore | person or animal eats all kinds of food, including both meat and plants |
| organism | a living thing |
| reproduction | when an animal or plant produces one or more individuals similar to itself |
| respiration | process of respiring; breathing ; inhaling and exhaling air |
| sensitivity | responding to the external environment |
| urban | belonging to, or relating to, a town or city |
| vegetation | plants , trees and flowers |
| vertebrate | a creature which has a spine |

What will I know by the end of the unit?

How can living things be grouped?

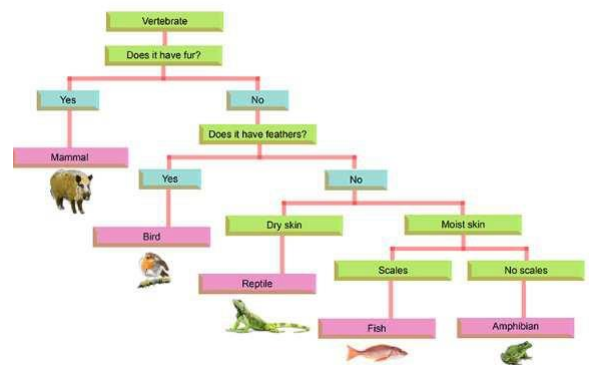
- All living things, which can also be called **organisms**, have to do certain things to stay alive. These are the **life processes**:
 - movement
 - **respiration**
 - **sensitivity**
 - growth
 - **reproduction**
 - **excretion**
 - **nutrition**



- Living things can be grouped according to different **criteria** (where they live, what type of **organism** they are, what features they have). For example, a camel can belong in a group of **vertebrates**, a group of animals that live in the desert, and a group of animals that have four legs.

What is a classification key?

- A **classification key** is a tool that is used to group living things to help us identify them.



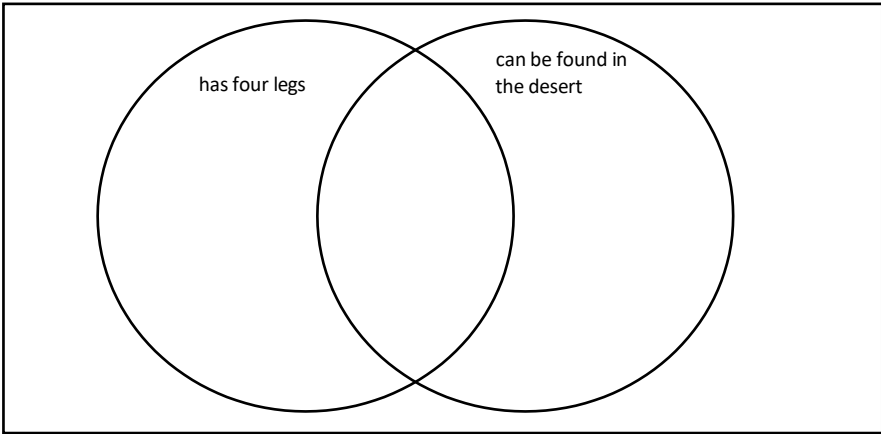




How can environments change?

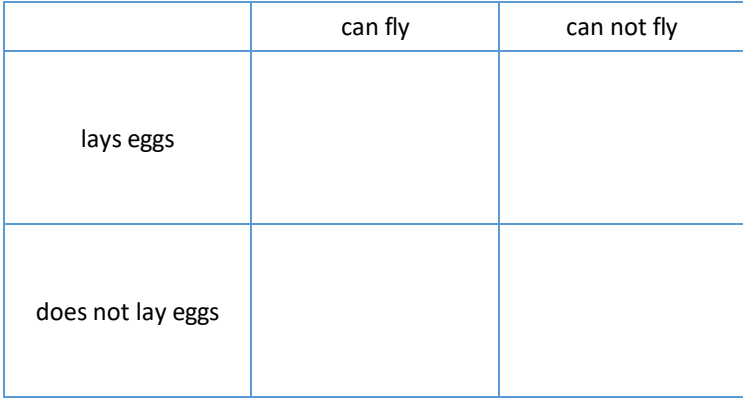




- **Habitats** can change throughout the year and this can have an effect on the plants and animals that live there.
- Humans can have positive and negative effects on the environment:
 - positive effects: nature reserves, ecological parks
 - negative effects: litter, **urban** development





Investigate!

- Complete Venn diagrams to show if living things can be grouped into two or more groups .
- Use **criteria** to sort living things in a Carroll diagram.
- Sort **vertebrate** and **invertebrate** animals into groups, describing their key features. Use a **classification key** to identify which group of **vertebrates** animals belong to and then create your own.
- Sort plants into groups (e.g. flowering plants and non-flowering plants) and then create a **classification key** to help others identify plants.
- Carefully observe **minibeasts** in a **microhabitat** and use a **classification key** to identify them.
- Use simple computer software programmes to create a branching **classification key**.
- Explore examples of human impact (both positive and negative) on **environments**.

| | | | | | |
|--|----------------|--------------|--|----------------|--------------|
| Question 1: Which of these is not a vertebrate? | Start of unit: | End of unit: | Question 2: A duck and a fish are similar because...(tick three) | Start of unit: | End of unit: |
| bird | | | they are both vertebrates | | |
| mammal | | | they both need food and water to survive | | |
| reptile | | | they both breathe using gills | | |
| insect | | | they are both invertebrates | | |
| amphibian | | | they both lay eggs | | |



| | | |
|---|----------------|--------------|
| Question 3: Write the word of each living thing in the Venn diagram to show where they belong. | Start of unit: | End of unit: |
|  <p>  camel  cactus  polar bear  whale </p> | | |

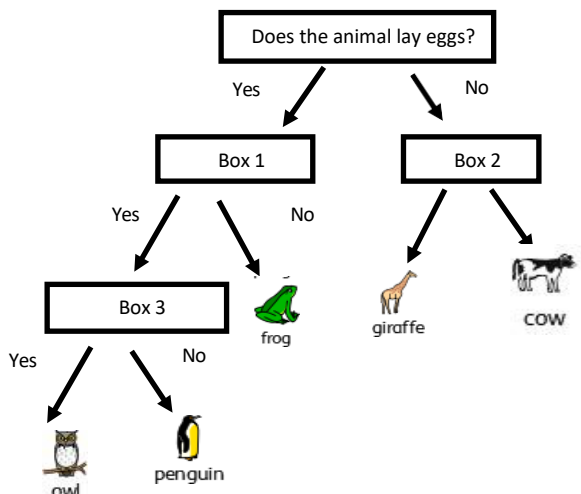
| | | |
|---|----------------|--------------|
| Question 4: Write the word of each living thing in the Carroll diagram to show where they belong. | Start of unit: | End of unit: |
|  <p>  salmon  sparrow  rabbit  frog </p> | | |

| Question 5: Complete the table by adding the name of the minibeast in the right place. | Start of unit: | End of unit: | | | | | | | | | | | | | | | |
|--|----------------|--------------|-------|--|---|---|--|---|---|--|---|---|--|---|---|--|--|
|  fly  spider  worm  ants | | | | | | | | | | | | | | | | | |
| <table border="1" data-bbox="124 1809 1129 2112"> <thead> <tr> <th>name</th> <th>legs</th> <th>wings</th> </tr> </thead> <tbody> <tr> <td></td> <td>6</td> <td>0</td> </tr> <tr> <td></td> <td>0</td> <td>0</td> </tr> <tr> <td></td> <td>8</td> <td>0</td> </tr> <tr> <td></td> <td>6</td> <td>2</td> </tr> </tbody> </table> | name | legs | wings | | 6 | 0 | | 0 | 0 | | 8 | 0 | | 6 | 2 | | |
| name | legs | wings | | | | | | | | | | | | | | | |
| | 6 | 0 | | | | | | | | | | | | | | | |
| | 0 | 0 | | | | | | | | | | | | | | | |
| | 8 | 0 | | | | | | | | | | | | | | | |
| | 6 | 2 | | | | | | | | | | | | | | | |

| | | |
|---|----------------|--------------|
| Question 6: Which three things do all animals do? | Start of unit: | End of unit: |
| move | | |
| walk | | |
| reproduce | | |
| grow | | |

| | | |
|---|----------------|--------------|
| Question 7: What can we use to help us accurately identify living things? | Start of unit: | End of unit: |
| a food chain | | |
| looking after the environment | | |
| a classification key | | |
| living processes | | |

| | | | | | | |
|---|----------------|--------------|--|--|--|--|
| Question 8: Name one thing that makes these animals similar and one thing that makes them different. | Start of unit: | End of unit: | | | | |
|  swan  owl | | | | | | |
| <table border="1" style="width: 100%; height: 150px;"> <tr> <td style="width: 50%; text-align: center;">similar</td> <td style="width: 50%; text-align: center;">different</td> </tr> <tr> <td style="height: 140px;"></td> <td style="height: 140px;"></td> </tr> </table> | similar | different | | | | |
| similar | different | | | | | |
| | | | | | | |

| Question 9: Look at the following classification key. Which question belongs in each box? | Start of unit: | End of unit: | | | | | | | | |
|---|------------------------|------------------------|-----------------------------------|--|-----------------------|--|----------------------|--|--|--|
|  <pre> graph TD Q1[Does the animal lay eggs?] -- Yes --> B1[Box 1] Q1 -- No --> B2[Box 2] B1 -- Yes --> B3[Box 3] B1 -- No --> F[frog] B2 --> G[giraffe] B2 --> C[COW] B3 -- Yes --> O[owl] B3 -- No --> P[penguin] </pre> | | | | | | | | | | |
| <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 70%;">Question</th> <th style="width: 30%;">Box Number (1, 2 or 3)</th> </tr> </thead> <tbody> <tr> <td>Does the animal have a long neck?</td> <td></td> </tr> <tr> <td>Is the animal a bird?</td> <td></td> </tr> <tr> <td>Does the animal fly?</td> <td></td> </tr> </tbody> </table> | Question | Box Number (1, 2 or 3) | Does the animal have a long neck? | | Is the animal a bird? | | Does the animal fly? | | | |
| Question | Box Number (1, 2 or 3) | | | | | | | | | |
| Does the animal have a long neck? | | | | | | | | | | |
| Is the animal a bird? | | | | | | | | | | |
| Does the animal fly? | | | | | | | | | | |

| | | |
|---|----------------|--------------|
| Question 10: List one way in which we help the local environment. | Start of unit: | End of unit: |
| | | |