Spring Block 2

Living things and their habitats

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Small steps

Step 1	Habitats in my local area
Step 2	Polar habitats
Step 3	Desert habitats
Step 4	Ocean habitats
Step 5	Woodland habitats
Step 6	Microhabitats
Step 7	Habitats and diet
Step 8	Food chains

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Small steps

Step 9

Living, dead or never alive?

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Key resources

Step 3 – Desert habitats

- images of animals from polar and desert habitats
- desert plants and animals on cards
- habitats on separate cards (the habitats will need to be repeated)

Step 5 – Woodland habitats

- cards with images of animals covering carnivores, herbivores and omnivores

Step 6 – Microhabitats

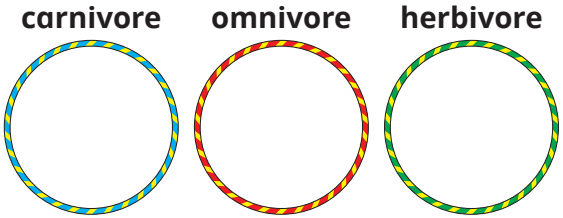
- materials for making a bug hotel – pinecones, twigs, sticks, dead leaves





Step 7 – Habitats and diet

- sorting hoops



Step 8 – Food chains

- animal cards
- string

Step 9 – Living, dead or never alive?

- images of things that are living, dead or never alive
- sorting hoops



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Polar habitats

Notes and guidance

In this small step, children look at animals and plants that live in polar habitats. This includes the Arctic and Antarctica. They should be able to identify some animals and plants that are able to survive in these extreme conditions. Children should be aware that polar temperatures can become extremely cold in the winter and only certain animals and plants can survive there.

Children should explore simple reasons why polar animals can survive in such extreme temperatures. This can include layers of blubber or fat and thick fur to keep them warm during colder months. Children should understand that polar animals get everything they need to survive from their habitat.

In this step, children continue to form answers to the enquiry question and should use simple secondary sources to identify a range of plants and animals in different habitats.

Key questions

- What is a habitat?
- What animals live in the Arctic?
- What animals live in Antarctica?
- What habitat does a _____ have?
- Why can a _____ survive in a polar habitat?
- What plants live in a polar habitat?
- What does a _____ eat?

Enquiry question

- What different habitats are there on planet Earth and what lives in each habitat?

Things to look out for

- Children may think that animals cannot survive in the Arctic or Antarctica due to extremely cold temperatures.
- Children may think that plants will not grow in polar habitats.

National curriculum links

- Identify and name a variety of plants and animals in their habitats, including microhabitats.
- **Working scientifically** – Using their observations and ideas to suggest answers to questions.

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Polar habitats

Key vocabulary

- **carnivore** – an animal that eats other animals



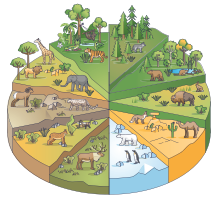
- **herbivore** – an animal that eats plants



- **Arctic plants** – plants that grow in the Arctic



- **habitat** – a place where an animal or plant lives



- **hibernate** – to spend a long period of time in a deep sleep

Practical ideas

- Ask children to choose a polar animal to research using secondary sources including books and pictures.

  They should research their animal in detail and find out how it is suited to its habitat. This could include where they find shelter and what they eat.

  Children could then create an animal fact file or a short presentation to show how their animal is suited to a polar habitat.





Factual knowledge

- A habitat is where a plant or animal lives.
- A habitat provides everything a plant or animal needs to survive.
- Polar animals can survive in extremely cold weather.
- Some polar animals are carnivores.
- Some polar animals are herbivores.

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Desert habitats

Notes and guidance

In this small step, children explore animals and plants that survive in the desert. Children should compare the differences between polar and desert animals and identify any differences between the animals that live in these habitats. This step is an opportunity to recap the five different animal groups they have been introduced to in previous blocks.

Children also explore how plants survive in desert habitats with a focus on familiar plants, such as cacti. They should start to form simple explanations about how plants survive in the desert and discuss why some plants can survive for a long time without needing to take in water.

Throughout this step, children should continue to answer the enquiry question and should use a range of secondary sources such as text, pictures and videos to help them form an answer.

Things to look out for

- Children may think that it is always hot in the desert. Explain that at night, the desert can be extremely cold too.
- Children may think that no plants and animals can survive in the desert due to the heat and lack of water.

Key questions

- What is a habitat?
- What animals live in the desert?
- What plants live in the desert?
- What habitat does a _____ have?
- What is the weather like in the desert?
- Why can a _____ survive in the desert?
- What does a _____ eat?

Enquiry question

- What different habitats are there on planet Earth and what lives in each habitat?

National curriculum links

- Identify and name a variety of plants and animals in their habitats, including microhabitats.
- **Working scientifically** – Using their observations and ideas to suggest answers to questions.

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Desert habitats

Key vocabulary

- **reptile** – an animal with dry scales



- **cactus** – a plant with spines



- **desert** – an area often covered in sand with very little rainfall



- **habitat** – a place where an animal or plant lives



- **rainfall** – the amount of rain that falls in one place



Practical ideas

- Provide children with pictures of animals from polar and desert habitats.

  Ask children to group the animals based on whether they live in a desert or polar habitat and encourage them to discuss why they are suited to that particular habitat.





- Play a "pairs" game to see whether children can identify a variety of animals and plants in their habitats.

  Turn the cards upside down so they cannot be seen and ask children to to take it in turns to turn over an animal card and attempt to match it to the correct habitat.

Factual knowledge

- A habitat is where a plant or animal lives.
- A habitat provides everything a plant or animal needs to survive.
- Desert animals can survive in extremely hot weather.
- Some plants can survive for a long time without water.

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Ocean habitats

Notes and guidance

In this small step, children explore the habitats of ocean animals. They should be able to name some familiar animals and plants in oceans and seas. Children do not need to name different species of ocean plants but should be aware that some plants grow in underwater habitats.

Children should understand that ocean plants provide some animals with their dietary needs. They are also used for shelter or safety from larger predators. Children should be able to identify why these animals and plants are best suited to ocean habitats and give simple explanations of how they rely on each other to survive.

Throughout this step, children should continue to think about the enquiry question for this block and should use a range of secondary sources such as text, pictures and videos to help them form an answer.

Key questions

- What is a habitat?
- What animals live in the ocean?
- Are all animals that live in seas and oceans fish?

  Explain your thinking.
- Why is a _____ best suited to an ocean habitat?
- What plants survive in the ocean?
- How do animals use the plants in the ocean to survive?

Enquiry question

- What different habitats are there on planet Earth and what lives in each habitat?

Things to look out for

- Children may think that all animals in the sea are fish. This step is a good opportunity to recap learning from previous blocks to identify fish and other animals that live in seas and oceans, such as mammals.

National curriculum links

- Identify and name a variety of plants and animals in their habitats, including microhabitats.
- **Working scientifically** – Identifying and classifying.

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Ocean habitats

Key vocabulary

- **ocean** – a large area of seawater



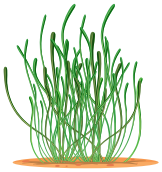
- **fish** – an animal that lives in water which usually has fins, scales and gills



- **mammal** – an animal with fur or hair on its body



- **seagrass** – a plant that grows and lives in the water



- **habitat** – a place where an animal or plant lives



Practical ideas

- Children should continue to use secondary sources to research plants and animals that inhabit the ocean.

  Children could choose one animal and explain why the ocean is a suitable habitat.

- Play "What would happen if …?" with children to develop scientific talk and discussion.

  For example:

  - What would happen if a whale lived in the desert?
  - What would happen if a cactus lived in the ocean?



Factual knowledge

- A habitat is where a plant or animal lives.
- A habitat provides everything a plant and animal needs to survive.
- Ocean animals include fish, mammals and reptiles.
- Some animals eat plants and others use plants for shelter or to hide from other animals.

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Woodland habitats

Notes and guidance

In this small step, children identify animals and plants that live in woodland habitats. This step is a great opportunity to visit a local woodland if possible to allow children to identify plants and animals in their natural habitat. Children should be able to identify why these animals and plants are best suited to woodland habitats and give simple explanations of how they rely on each other to survive.

Throughout this step, children should continue to think about the enquiry question for this block and should use a range of secondary sources, such as text, pictures and videos, to help them form an answer.

Key questions

- What is a habitat?
- What animals live in a woodland habitat?
- What plants live in a woodland habitat?
- Why is a _____ best suited to a woodland habitat?
- Why is a _____ best suited to a woodland habitat?
- How do animals use the plants and trees in the woodland to survive?

Enquiry question

- What different habitats are there on planet Earth and what lives in each habitat?

Things to look out for

- Children may think that a particular animal only has one habitat. For example, a fox can be found in a woodland habitat but it can also inhabit an urban area.
- Children may think that it is only animals that have a habitat. Explain to children that plants also have a habitat which provides everything they need to survive.

National curriculum links

- Identify and name a variety of plants and animals in their habitats, including microhabitats.
- **Working scientifically** – Identifying and classifying.

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Woodland habitats

Key vocabulary

- **woodland** – a large area with trees, shrubs and other plants



- **fern** – a plant with long stems and feather-like leaves



- **mammal** – an animal with fur or hair on its body



- **bird** – an animal with feathers, wings and a beak



- **moss** – a plant that grows in damp conditions



Practical ideas

- Children could visit a local woodland to identify plants and trees that inhabit the area.

  Create a tick or check list that children can use to identify any plants or animals that are commonly found in woodlands.



- Give children pictures of different animals. Ask them to sort the animals depending on whether they live in a woodland, desert, ocean or polar habitat.





Factual knowledge

- A habitat provides everything a plant or animal needs to survive.
- Animals and plants live in woodland habitats.
- In woodlands, some animals eat plants and others use plants for shelter.

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Microhabitats

Notes and guidance

In previous steps, children looked at a range of different habitats. In this small step, they explore microhabitats. It is important for children to grasp the concept that a habitat is the place where a plant or animal lives, and a microhabitat refers to an extremely small habitat. For example, a woodlouse lives beneath stones, logs or leaf litter. They should explore a variety of microhabitats and identify the animals and plants that inhabit them. Children should also realise that smaller creatures are more likely to thrive in microhabitats and consider which animals or plants are unlikely to be found in such tiny environments.

Children should be encouraged to explore and observe microhabitats in their local area without disturbing them. The enquiry question should be revisited during this small step and children could compare microhabitats to other habitats.

Key questions

- What is a habitat?
- What is a microhabitat?
- What plants live in this microhabitat?
- What animals live in this microhabitat?
- What plants/animals would not live in this microhabitat?
- How does this microhabitat provide everything that animals/plants need?
- Do all insects live in the same microhabitat?

Enquiry question

- What different habitats are there on planet Earth and what lives in each habitat?

Things to look out for

- Children may think microhabitats do not occur in other areas, e.g. in woodlands.
- Children may think that all animals live in the same microhabitats.

National curriculum links

- Identify and name a variety of plants and animals in their habitats, including microhabitats.
- **Working scientifically** – Observing closely, using simple equipment.

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Microhabitats

Key vocabulary

- **microhabitat** – a very small habitat



- **insect** – a small animal that has six legs



- **spider** – a small animal that has eight legs



- **snail** – a small animal with a soft body and a shell



- **habitat** – a place where an animal or plant lives



Practical ideas

- Take children on a walk to explore different mircrohabitats in your local area. Ask children to identify animals that are found in the mircohabitats.

  Discuss similarities and differences between the microhabitats.

- Children could create their own microhabitats using a range of different resources.

  Leave the microhabitats in a quiet space outside for a week and then revisit them.

  Are there any animals living in their microhabitats?

  If there are no animals living in their microhabitats, explore the reasons why.



Factual knowledge

- A habitat is where a plant or animal lives.
- A microhabitat is a very small habitat.
- Insects, snails, worms and spiders all live and survive in microhabitats.

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Habitats and diet

Notes and guidance

In this small step, children explore habitats and diet. Children should be aware that animals have different diets and this can be used to group animals into different categories. In Year 1, children were introduced to the terms "carnivore", "herbivore" and "omnivore". They will consolidate this knowledge and develop it further by comparing different types of animals and their habitats.

Children should consider the habitats different animals live in and think about how this will affect their diets. They should be encouraged to use their knowledge from previous small steps to think about the animals and plants that live in certain habitats and how this will form different animals' diets. This will be built on further when looking at food chains in the next small step.

Things to look out for

- Children may confuse carnivores, herbivores and omnivores.
- Children may think that all carnivores/herbivores/omnivores eat the same diet and not consider the food available in their habitats.

Key questions

- What is a habitat?
- What is a carnivore?
- What is a herbivore?
- What is an omnivore?
- Where do most animals find their food?
- What food would be available in this habitat for a carnivore/herbivore/omnivore?

Enquiry question

- What different habitats are there on planet Earth and what lives in each habitat?

National curriculum links

- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- **Working scientifically** – Gathering and recording data to help in answering questions.

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Habitats and diet

Key vocabulary

- **carnivore** – an animal that eats other animals



- **herbivore** – an animal that eats plants



- **omnivore** – an animal that eats other animals and plants



- **habitat** – a place where an animal or plant lives



- **diet** – the food eaten by an animal

Practical ideas

- Take children to visit a local habitat and discuss the food that would be available for animals that live there.

  What food is available there for a carnivore/herbivore/omnivore?

  Alternatively, you could show children a video of a habitat.

- Take a walk in the local area and make a list of the animals that children see.

  Discuss the food the animals eat and sort the animals into carnivores, herbivores and omnivores.



Factual knowledge

- An animal's habitat provides the food it needs to survive.
- Some animals are carnivores.
- Some animals are herbivores.
- Some animals are omnivores.

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Food chains

Notes and guidance

In the previous small step, children learnt about habitats and diets. In this small step, children build on this understanding and simple food chains for the first time. They will use their knowledge about carnivores, herbivores and omnivores when creating food chains.

Food chains should be used to show how energy is passed from one plant/animal to another animal. Children should identify that a food chain usually starts with a plant. They should discuss how different living things rely on each other to survive. Children may also be able to explain what would happen if one part of a food chain were removed.

Key questions

- What is a carnivore?
- What is a herbivore?
- What is an omnivore?
- What is a food chain?
- How does energy pass from a plant/animal to another animal?
- What would happen if we removed one part of the food chain?

Enquiry question

- What different habitats are there on planet Earth and what lives in each habitat?

Things to look out for

- Children may not realise that energy is passed within a food chain.
- Children may not fully understand the implications of one part of the food chain being removed.
- Children may not draw arrows the right way round to show the passing of energy on their food chains.

National curriculum links

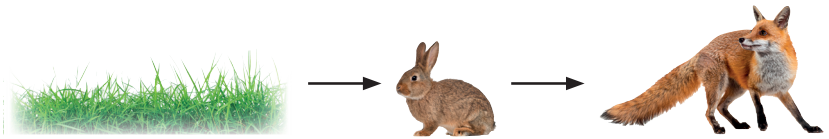
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.
- **Working scientifically** – Gathering and recording data to help in answering questions.

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Food chains

Key vocabulary

- **food chain** – the order in which energy is passed from one plant or animal to another when they are eaten



- **carnivore** – an animal that eats other animals



- **herbivore** – an animal that eats plants



- **omnivore** – an animal that eats other animals and plants



- **diet** – the food eaten by an animal

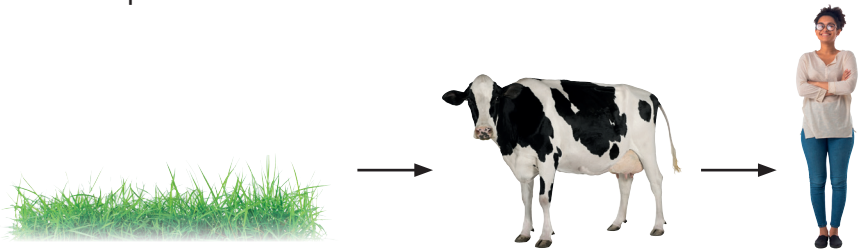
Practical ideas

- Provide children with a range of cards showing pictures of plants and animals.

  Ask children to create simple food chains with the animals/plants they are provided with.

  Use string to create food chain models.

  Ask children to add arrows to show the transfer of energy between plants/animals.



  Extend this by including animals that would not fit into food chains or by removing one animal or plant from the food chain. Explore what the impacts of this would be.

Factual knowledge

- A food chain shows how different living things rely on each other.
- A food chain normally starts with plants.
- Some animals eat other living things for energy.

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Living, dead or never alive?

Notes and guidance

In the final step of this block, children explore and compare the differences between things that are living, things that are dead and things that have never been alive. An important distinction is the difference between something that is dead and something that has never been alive, for example a dead plant and a stone.

Explain to the children that animals and plants are living things that need certain things to survive. Encourage children to make links between this step and Autumn Block 1. There can be many reasons that a living thing dies but one reason is that they do not get enough of one of the things needed for survival, such as food. This is different from something that was never alive, such as rocks, water or toys.

Key questions

- Is a _____ living/dead or has it never been alive?
- What are some examples of living things?
- What are some examples of non-living things?
- Which of these things are living?
- Which of these things are dead?
- Which of these things have never been alive?
- What is the same about things that are dead and things that have never been alive?
- What is different about things that are dead and things that have never been alive?

Things to look out for

- Children may confuse things that are dead and things that were never alive.
- The topic of living things dying needs to be approached with extra care and sensitivity.

National curriculum links

- Explore and compare the differences between things that are living, dead, and things that have never been alive.
- **Working scientifically** – Identifying and classifying.

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Living, dead or never alive?

Key vocabulary

- **living** – something that is alive



- **dead** – something that was once living but is now not alive



- **never alive** – something that has never been living



- **plant** – a living thing that sometimes grows in soil



- **animal** – a living creature



Practical ideas

- Take children outside into the local area and ask them to identify objects that are living, dead or have never been alive.

  Encourage children to explain how they know something is living, dead or was never alive.

- Provide children with pictures of objects that are living, dead or were never alive and ask them to sort them into different labelled hoops.






Factual knowledge

- Animals, plants and humans are living things.
- Living things need certain things to survive, such as water, food, shelter and air.
- Living things can die.
- When something is dead, it was once living.
- Some things were never alive, such as rocks, water or toys.

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