

EXPLORING OUR WILD ISLES: GRASSLANDS

ACTIVITY GUIDE FOR PRIMARY TEACHERS
AND YOUTH GROUP LEADERS

SAVE OUR
WILD
ISLES

AGE 4 – 11 YEAR OLDS





INTRODUCTION

Have you ever taken the time to think about all the amazing landscapes we have in the UK? Despite being small, the combination of weather, climate and ancient rock formations we have in the UK means that we are lucky enough to have some of the most diverse and beautiful landscapes on Earth. From our high craggy mountains, boggy moorlands, rushing rivers, dense green forests, tranquil lakes, wildflower meadows, rocky coastlines and wild seas, each of these unique landscapes is packed full of different habitats with a huge variety of plants, animals and fungi.



Because of this, the UK is home to some amazing natural wonders: spectacular murmurations of starlings, dense woodlands sprinkled with bluebells, rutting deer on frosty mornings, glittering blue damselflies dancing over streams, damp forest floors exploding with mushrooms – it's all here, right on our doorstep!

But despite all of this, we have not been protecting our precious nature. We have farmed intensively across almost all of our land, we have expanded towns and cities putting pressure on surrounding countryside

habitats, built miles of roads and trainlines carving up wild habitats and polluted our waters with plastics and pesticides. The UK is now one of the most nature depleted countries in the world and many of our unique habitats are now under pressure. Over the last 50 years we've had huge losses in numbers of wildlife. More than one in seven native species are now facing extinction and more than 40% are in decline including some of our most iconic species like bumblebees and hedgehogs.



GETTING TO KNOW GRASSLANDS

Grasslands cover over 40% of the UK's land - our boggy moorlands, colourful wildflower meadows, areas of farmland, and even grassy verges on the edges of roads. In the distant past, our grasslands existed because they were grazed by herds of wild cows, horses and deer. Over thousands of years, however, they have developed alongside farming and other human activity. Now, they rely on human management to stop them developing into woodland over time – including through the grazing of farmed herbivores like cows and sheep, or cutting back for hay.

These 'semi-natural' grassland habitats are extremely important, and are so much more than just grass. Healthy grasslands are home to a huge variety of plants such as heather, buttercups, knotweed and cowslips, important pollinators like bees and butterflies, tiny rodents like field voles and harvest mice, reptiles like common lizards and slow worms (not a worm or snake but a legless lizard!), and predators such as weasels, stoats, hovering kestrels and silent short-eared owls. Grasslands are also habitats for some of the UK's most precious species including fritillary wildflowers, orchids, large blue butterflies and adders, the UK's only venomous snake!

Grasslands are not just important for our biodiversity, they also provide us with a nature-based solution to climate change. Through complex relationships between grassland plants, fungi and microorganisms beneath the surface, grasslands can suck up huge amounts of carbon dioxide from the atmosphere and lock it up into the soil. Species-rich grasslands can also capture and store pollutants, reducing their impact on our air and fresh water.

But unfortunately, we have not been protecting our UK grasslands. Activities like crop spraying, ploughing, use of fertilisers, overgrazing of animals, building new roads and trainlines, expanding towns and cities, planting conifer trees for wood and human-induced climate change, are all putting our UK grassland habitats under tremendous strain.

We've lost 97% of our wildflower meadows since 1930 and over 90% of lowland grassland habitats. Most of the grassland habitats in the UK have been heavily changed by intensive farming and other land management practices. These modified grasslands are home to much fewer species, compared to the abundance of species that live in the areas of semi-natural grassland habitats we have left.

As more than 70% of our land in the UK is farmed, the biggest opportunity we have to help our grasslands is to support nature-friendly farming methods. We know that most farmers care deeply about nature, recognise the value it holds and want to make space for it to thrive. But at the moment, government policies don't provide enough support for farmers to manage their land for nature and to balance this with the need for affordable, healthy and sustainable food. The good news is, we can change that.

By protecting and restoring our vital grasslands, and supporting farmers to do the same, we can help tackle climate change and create a better future for the many species that depend on our grasslands to survive – including us.

Grasslands facts

- Grasslands cover 40% of the UK's landmass.
- We have lost 97% of our wildflower meadows since 1930.
- 40% of pollinating insects are now at risk of extinction.
- All the world's machair is found in UK and Ireland, it's one of the world's most important types of grassland.



WHAT'S IN THIS GUIDE

This guide is designed to be used by teachers and youth group leaders and contains activities suitable for children aged 4 – 11 (Key Stage 1-2, First-Second Level). These activities are all designed to encourage children to connect with UK nature, explore the biodiversity of their local green spaces and learn more about grassland ecosystems. We recommend using our Save Our Wild Isles presentation in combination with these activities.

- Activity 1:**
Build a bee hotel
(age 4-11)
- Activity 2:**
Pollination stations
(age 4-11)
- Activity 3:**
Super seed balls
(age 4-11)
- Activity 4:**
Grassland groupings
(age 4-11)
- Activity 5:**
Persuasive letter writing
(age 7-11)
- Activity 6:**
Nature-friendly careers
(age 4-11)



Sustainable development goals

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.



ACTIVITY 1

BUILD A BEE HOTEL

Time: 3 hours

Can be split into
different sections

Age: 4 – 11 – with adult supervision!

Curriculum links: England: Science, Art and Design, Scotland: Sciences, Technologies, Wales: Science and technology, Northern Ireland: Science and technology.

Most of the species of bees we have in the UK are 'solitary' bees. This means they don't live in hives or colonies but build individual nests for their larvae. Some solitary bees nest in sandy banks or old bricks; others use hollow stems of dead plants or old wood to create their nests. Solitary bees are important pollinators, and you can help them out by making your own buzzing bee hotel at school or at home!

You will need

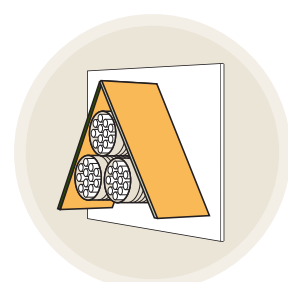
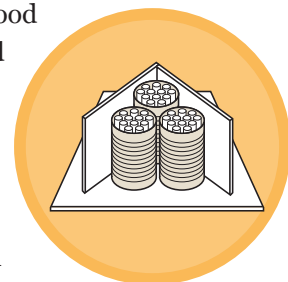
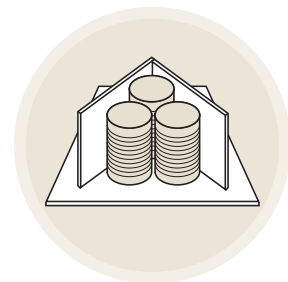
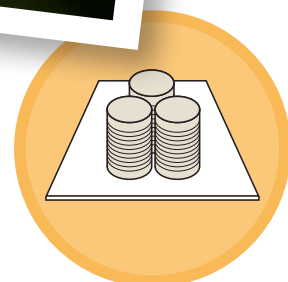
- Three clean tin cans.
- Bamboo canes.
- Non-toxic PVA glue.
- Wood glue.
- Two thin pieces of wood for the roof.
- Thin square of wood for the back of the hotel.
- Non-toxic paint (optional).
- Lollypop stick and cardboard (optional).

This is a great activity to do at home if you have a garden or balcony!



Instructions

1. Place the piece of wood you have chosen for the back of your bee hotel on the floor. Put wood glue on the bottom of the cans and stick them to the wood in a pyramid shape (two below, one on top). Leave to dry for an hour.
2. Whilst you are waiting, you can design and make a small sign for your bee hotel using your lollypop stick and cardboard. Try to come up with a fun name for example 'Bee n' B' or 'Buzzingham Palace'!
3. Take the pieces of wood for your roof and place them in a triangle shape covering the cans. Using wood glue, glue the wood into place and leave to dry for an hour.
4. Teachers and youth leaders should help children to cut the bamboo canes into short sections the same depth as the tin cans. Place a little PVA glue on the end of each cane and push it into the can. Fill up the can with the canes.
5. Now your bee hotel is nearly ready. Paint it in bright colours and patterns, add your bee hotel sign and leave it in a quiet, sunny place outside for the bees to start using. You'll know they're nesting if you see them flying in with pollen (some carry it on their bellies), with blobs of mud to create cell walls along the tube, or with bits of leaf (these are the leaf-cutter bees).



ACTIVITY 2

POLLINATION STATIONS

Time: 15 minutes

Age: 4 – 11

Curriculum links: England: Science, Geography, Physical education, Scotland: Sciences, Social studies, Technologies, Health and Wellbeing (Physical education). Wales: Science and technology, Humanities, Physical education Northern Ireland: Geography, Science and technology, Physical education.

This fun game demonstrates how bees pollinate wildflowers in their search for tasty, sweet nectar! Suitable for groups of 8 or more.

You will need

- 2 hula hoops per team.
- Bean bags – two per team member (or more if you want the game to last longer).
- Rubber rings (quoits) or tennis balls – two per team member (or more if you want the game to last longer).

Instructions

1. Explain to the group that they are going to be honey bees flying from their hives out to a wildflower meadow. They have to transfer pollen (beanbags) from one flower (hula hoop) to another and then bring back nectar (rubber ring) to their hive.
2. Decide on number of teams and how many children are in each team. Each team should ideally have the same number of children, but if that's not possible, some children will have to take additional turns so that all teams have an equal chance of winning.
3. Set up the game. Designate one side of the hall/ playground to be the hives. This is where the game starts from and where the team members sit down and wait for their turn. Teams should place their hoops in line with their hive - the first hoop should be placed 5m from the hive and the second hoop a further 5m from the first hoop. Each team's beanbags



should be placed in the first hoop and the rubber rings should be placed in the second hoop.

4. If you wanted to, you could use different coloured hoops for each team representing a different wildflower e.g. blue hoop team could be heather, yellow hoop team could be a buttercup, red hoop team could be a poppy and the green hoop team could be cow parsley.
5. Each team lines up in their 'hive' at one end of the playground/hall and sits down.
6. The first bees in each team stand up, hop* to the first flower (first hoop) and collect pollen (one beanbag) from the flower.
7. The first bees then put the pollen on their heads*. Without holding onto it with their hands, they then walk quickly to the next flower (second hoop). If the pollen falls off any bee's head, they must run back to the first flower and start again.
8. When the bees get to the second flower, they need to place their pollen in the hoop and pick up some nectar (one rubber ring). They can now run* back to their hive with their nectar and sit down.
9. The next bees in the line repeat steps 6-8 in turn until one team has transferred all their pollen and brought all the nectar back to their hive. When this happens the team shouts 'hive' or the name of their wildflower and they are the winners of the game.

* For inclusivity make adjustments to movements and instructions as you see fit.

ACTIVITY 3 SUPER SEED BALLS

Time: 20 minutes **Age: 4 – 11**

Curriculum links: England: Science, Art and Design, Scotland: Sciences, Technologies, Wales: Science and technology, Northern Ireland: Science and technology.

Help to spread bee and butterfly friendly wildflowers throughout your school grounds and local area, with these super seed balls made from clay and wildflower seeds. Whether you're in the countryside or city, planting in a recycled pot, flowerbed or wild patch in your school field, planting wildflowers can provide vital support for pollinators which are crucial for biodiversity.

You will need

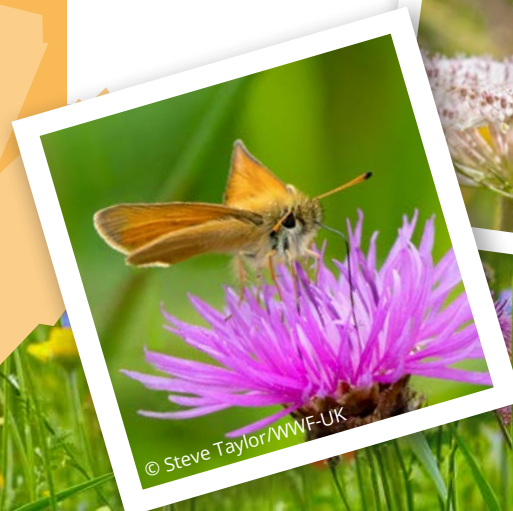
- Peat free compost.
- Powdered clay (found in art shops and online craft shops) or clay-rich soil.
- Water.
- Wildflower seeds – ideally a few different types, you can get wildflower seed packets from garden centres, or you can harvest your own.
- Paprika (optional).
- Mixing bowl.
- Somewhere to plant your seed balls – make sure you have permission first!
- Cups for measuring (mugs, plastic cups – whatever you have handy!).

This is a great activity to try at home, you could even gift your seed balls as presents to friends and family.



Instructions

1. In your mixing bowl, mix together 5 cups of peat free compost and 2-3 cups of powdered clay or your clay-rich soil.
2. Wet slightly with water and knead until the mixture starts to bind together.
3. Add a sprinkle of wildflower seeds and a little paprika (to stop birds from eating your seeds!)
4. Using the palm of your hands, roll into firm balls about 3-4cm across.
5. Leave your seed balls to dry for a few days in a warm spot.
6. Plant or throw your seed balls into your flowerbed, plant pot, school field or lawn. Seed balls are best planted in spring and autumn and otherwise can be stored in a cool dry place.
7. Over the next few weeks keep an eye out to see what grows!



ACTIVITY 4 GRASSLAND GROUPINGS

Time: 20 minutes

Age: 4 – 11

Curriculum links: England: Science, Scotland: Sciences, Wales: Science and technology, Northern Ireland: Science and technology.

Instructions

There are loads of amazing wild plants and animals waiting to be found in our precious grassland habitats. Can you group the following wildlife and create your own grassland food chains to show who eats who?

Using the images of grassland wildlife on the next 2 pages sort into the following categories:

- Plants and animals.
- Vertebrates and invertebrates OR animals with and without backbones for age 4-6.

- Mammals, birds, reptiles, minibeasts (separate minibeasts into insects and arachnids for age 7-11).
- Herbivores, carnivores, and omnivores OR plant eaters, meat eaters, animals that eat plants and meat for age 4-6.
- Most active at night, most active in the day (nocturnal and diurnal).



Use the grassland wildlife images to make food chains containing the following:

An insect that carries pollen.

A mammal that eats seeds.

A spider.

A mammal that eats meat.

An animal that hunts at night.

A venomous predator and a bird.

Remember all food chains need to start with a producer, a plant that makes its own energy from the sun. Here is an example of a grassland food chain:



Grass



Field vole



Barn owl



© Ola Jennersten/WWF-Sweden

Adder

Eats small mammals, small birds and lizards. UK's only venomous snake.



© Shutterstock

Common blue butterfly

Eats nectar from flowers.



© Shutterstock

Field vole

Eats seeds, roots and leaves.



© Shutterstock

Harvest mouse

Eats mainly seeds and fruits.



© wildlifewitholl/WWF-UK

Barn owl

Eats small mammals.



© Shutterstock/rock ptarmigan/WWF-UK

Skylark

Eats seeds and insects.



© Greg Armfield/WWF-UK

Bee

Eats nectar from flowers.



© Steve Morgan/WWF-UK

Buttercup

Provides nectar.



© Pixabay

Grass (soft brome)

Provides seeds and leaves.



© Pixabay

Heather

Provides nectar.



Red deer

Eats grasses and other plants including tree shoots and shrubs.



Stoat

Eats rabbits and other small mammals.



Rabbit

Eats grasses.



Knapweed

Provides nectar.



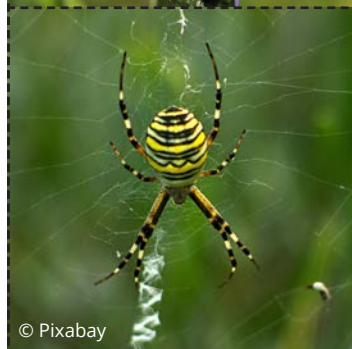
Six spot burnet moth

Eats nectar from wild flowers.



Common lizard

Eats insects and other invertebrates (bugs) like spiders.



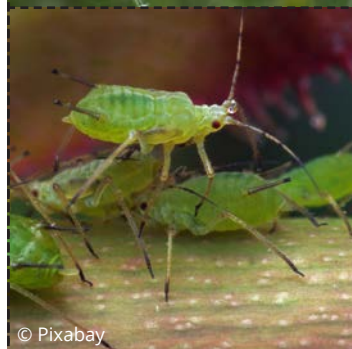
Wasp spider

Eats insects.



Soldier beetle

Eats nectar, pollen and aphids.



Greenfly (aphid)

Eats plant sap.



Common blue caterpillar

Eats wildflower plants.

ACTIVITY 5 PERSUASIVE LETTER WRITING

Time: 40 minutes

Age: 7 – 11

Writing a letter can be a great way of letting someone know how you feel about nature or asking for someone's help to protect it. It can also help you practise your persuasive writing skills! Use the template below to write your own persuasive letter to help make your school grounds or local grassy area better for nature.

Who should I write to?

- Head teacher.
- Class teacher or group leader.
- Family member.
- MP/MS/MSP.
- Local council member.
- Local business owner.

Key topic words

| | | |
|-------------|-------------|--------------|
| Nature | Planting | Habitats |
| Grass | Flowers | Protect |
| Soil | Improve | Biodiversity |
| Wild | Pollinators | Bug hotel |
| Butterflies | Insects | Bees |
| Planet | Earth | World |

Grassland facts

- The UK has lost over 97% of our wildflower meadows since 1970.
- Nearly 1,400 species of pollinators and other insects rely on plants in wildflower meadows for their survival.
- There are over 250 species of bee in the UK.
- In June, one acre of UK wildflower meadows can contain over 2.3 million flowers.
- UK wildflower meadows can be home to over 150 different grasses and flowering plants and can contain up to 45 species per square metre.

Curriculum links: England: English, Scotland: Literacy and English, Wales: English, Northern Ireland: Language and literacy.

What am I persuading them to do?

There are lots of things you could try to persuade someone to do to help local grassland nature. Here are a few ideas:

- To plant an area of wildflowers in your school field or local community space.
- To plan a lesson or activity on making a bee hotel or wildflower seed balls.
- To ask ground maintenance staff to leave an area of grass long for wildflowers and plants to grow.
- To put plants and wildflowers outside shops and businesses to create a street long wildlife corridor.
- To not mow the lawn for one month in May.

Persuasive words and phrases

| | | |
|-----------|---------------------|-----------------|
| Insist | Firstly | Finally |
| Urge | Furthermore | Likewise |
| Ask | Surely | Certainly |
| Plead | Moreover | Again |
| Encourage | I argue that... | For example... |
| Important | You can see that... | For instance... |
| Crucial | Without a doubt... | Because |
| Vital | Secondly | So that |



LETTER WRITING TEMPLATE



Address of who you are writing to:

Your address / school address:

Date

Introduction – explain your opinion, with an opening sentence that hooks the reader.

Dear _____

I am writing to you _____

Make your point – here you need to list your reasons to explain your opinion. A good place to use scientific facts and other evidence to support your points.

Ending – summary of your main point/s and any action you would like them to take.

Yours sincerely

ACTIVITY 6

NATURE-FRIENDLY CAREERS



© Yoon S. Byun / WWF-US

We can all try to help nature in our daily life.

However, some people can help solve some of the big issues facing nature because they have a job that can make a big difference.

1. Whole class discussion

(10 mins)

- What problems have we learned about that affect this biome? (gather suggestions).
- Pick out a few of the suggestions and ask for ideas of what jobs might be able to help solve the problem by taking action or doing something differently.

E.g. Loss of wildflower meadows: Farmers, local planners, school leaders/groundskeepers.

2. Think, Pair and Share activity

(5 mins)

- Choose one of the jobs suggested in point 2, or come up with a new job, and discuss how you would try to do good for nature if that was your job.

3. Whole class discussion

(10 mins)

- Go round and hear from each pair, building up a list of the jobs that could influence the health of the biome.
- How might people in these jobs make choices that could help nature? Choose one or more jobs that don't have an obvious link to the biome (e.g. artist, builder, teacher, politician, shop manager, banker) and see if the class can think of ways they could help. E.g. nature-friendly products and materials, building awareness of the importance of nature etc.

USEFUL LINKS AND RESOURCES



LearnToLoveNature grasslands activities
www.wwf.org.uk/learn/love-nature/grasslands

Our grasslands information sheet

[Our_Planet_ourgrasslands.pdf](#) (wwf.org.uk)

Our grasslands presentation

[Our_Grasslands_Slides.pptx](#) (live.com)



@WWFUK_Education



Schools' Wild Challenge Minibeast safari activity
(experience nature)

**Minibeast Safari | School Wild Challenge -
The RSPB**

Make a mini meadow

[make-a-mini-meadow.pdf](#) (rspb.org.uk)

Make equipment to catch your minibeasts

[make-a-sweep-net.pdf](#) (rspb.org.uk)

[make-a-pooter.pdf](#) (rspb.org.uk)

[make-a-bottle-bug-catcher.pdf](#) (rspb.org.uk)



@RSPB_Learning

