It's for Them

Education Resource Pack







Curriculum for Wales

Content is relevant to the Curriculum for Wales: Statements of What Matters: 2.6.3 – The world around us is full of living things which depend on each other for survival.

Aims

For children to:

- understand that cutting grass less often and allowing wildflowers to grow helps wildlife.
- learn that meadow-like areas can provide food and shelter for a wide range of creatures.

Key Words

Pollinator

Birds

Pollen

Habitat

Nectar

Food web

Seed

Producer

Insects

Consumer

Invertebrates/Mini-beasts

Predator

Mammals

Prey

Amphibians

Meadow

Reptiles





Teaching Notes

Children may see that grass is being left to grow in areas where they play. Local authorities, Community and Town Councils, and other organisations that manage public grassland across Wales are changing how grassland is managed in parks and other green spaces. One of the reasons they are doing this is because we are in a Nature Emergency. 1 in 6 species assessed in Wales are at risk of extinction. Younger children may find this fact distressing, so handle this sensitively and stress the positive outcomes that can be achieved by supporting nature.

Welsh Government has developed the 'It's for Them' campaign to show how important green spaces are and how they can create a better habitat for 'Them': invertebrates, birds, small mammals, amphibians and reptiles. These colouring-in sheets and activities will help children learn about some of the animals and plants that could live and feed in these areas. Colouring-in sheets 1-6 can be found on pages 20-25.

Colouring-in sheets 1 and 2 show plants, invertebrates and birds. Some areas with longer meadow-like grass may have rare plant species but most will have common wildflowers such as buttercups, daisies and dandelions. These have been included in the colouring-in sheets and should be recognised by children. Children will possibly know invertebrates such as ladybirds. Others such as the common red soldier beetle may be less familiar, but these striking red beetles can be found on flowers such as daisies. You can allow children to use their imagination to colour in animals and plants and not necessarily colour them in as they are in reality.

Colouring-in sheets 3 and 4 show plants, invertebrates, birds, an amphibian, a reptile and a mammal. They also show that life is not limited to what we can see above ground but that soil layers provide a place for animals to live and feed.

Colouring-in sheets 1-4 are quite detailed. Children may choose to focus on colouring in parts of the image that they particularly like such as insects, animals or flowers.

Colouring-in sheets 5-6 are not as detailed. White spaces have been left so children can draw their own pictures of animals or plants that they have learned about in the activities or perhaps ones they have seen on expeditions to the park or a bug hunt.



Colouring-in sheet 1 (landscape):

Plants: grasses, buttercups, daisies, dandelions and other flowering plants

Invertebrates: butterflies, moths, hoverflies, grasshoppers, ladybirds, common red soldier beetles, thick legged flower beetles, bloody-nosed beetles, bumblebees and ants

Bird: kestrel

Colouring-in sheet 2 (portrait):

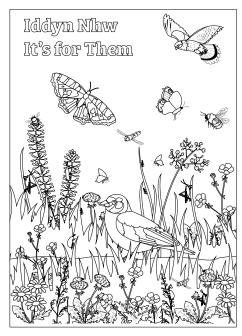
Plants: grasses, buttercups, daisies, dandelions and other flowering plants

Invertebrates: butterflies, moths, hoverflies, grasshoppers, ladybirds, a common red soldier beetle, thick legged flower beetles, bloody-nosed beetles, bumblebees and ants

Birds: kestrel and goldfinch

Iddyn Nhw It's for Them

See p20 for full-size colouring-in sheet.



See p21 for full-size colouring-in sheet.

Colouring-in sheet 3 (landscape):

Plants: grasses, buttercups, daisies, dandelions and other flowering plants

Invertebrates: butterflies, moths, hoverflies, grasshoppers, ladybirds, common red soldier beetles, thick legged flower beetles, bloody-nosed beetles, bumblebees, ants (with nest and eggs) and an earthworm

Birds: kestrel

Amphibian: common frog

Reptile: common lizard

Mammal: hedgehog



See p22 for full-size colouring-in sheet.

Colouring-in sheet 4 (portrait):

Plants: grasses, buttercups, daisies, dandelions and other flowering plants

Invertebrates: a butterfly, moths, a hoverfly, grasshoppers, ladybirds, common red soldier beetles, thick legged flower beetles, bloody-nosed beetles, bumblebees, ants (with nest and eggs) and an earthworm

Bird: swallow

Amphibian: common frog

Reptile: common lizard

Mammal: hedgehog

Iddyn Mhw It's for Them

See p23 for full-size colouring-in sheet.

Colouring-in sheet 5 (landscape):

Plants: grasses, buttercups and daisies

Invertebrates: a butterfly, a hoverfly, a ladybird, a common red soldier beetle, a thick legged flower beetle, a bloody-nosed beetle, bumblebees, a grasshopper and an earthworm

Bird: kestrel

Amphibian: common frog

Mammal: hedgehog



See p24 for full-size colouring-in sheet.

Colouring-in sheet 6 (portrait):

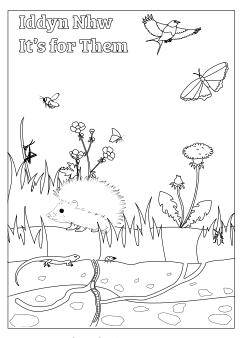
Plants: grasses, buttercups and a dandelion

Invertebrates: a butterfly, a moth, a grasshopper, a ladybird, a thick legged flower beetle, a bumblebee, and an earthworm

Bird: swallow

Reptile: common lizard

Mammal: hedgehog



See p25 for full-size colouring-in sheet.

Explanation Text Type

- 1. You can use the 'It's for Them: Changing mowing to save wildlife Explanation Text' to set the context for the other activities and to explain the positive benefits of changing the way we manage green spaces.
- 2. For older children, you can also use it to analyse an Explanation Text Type.

Key language points:

- Purpose of the text: To explain why it is important for us to change how we mow grass.
- Structure of text: introduction, series of themed paragraphs and a conclusion.
- Use of nouns and noun groups to represent things
 e.g. 'organisations, parks, flowers, seeds, short grass, wildlife, road verges, wildflowers, pollen, bumblebees, solitary bees' etc.
- Use of verbs and verb groups to represent what things do, what happens and relationships e.g. 'feed on, collecting, go, to feed, move, to make, contain, grow, depend on, cannot produce and would not have' etc.
- Use of present tense for factual statements e.g. 'Wildflowers have pollen and nectar.'
- Use of simple active sentences e.g. 'Seeds grow into new plants.'

- Use of two clause sentences to construct logical arguments:
 - With connectives e.g. 'They are letting the flowers grow for longer so they can make seeds.' (reason) and 'Short grass may look tidy but it is not very good for wildlife.' (contrast).
 - Without connectives e.g. 'Many plants need pollination to make seeds.' (reason) and 'To help wildlife, we can change the way we cut grass.' (purpose).
- Use of prepositional phrases to show dependency relations e.g. 'Without pollinators, the plants cannot produce seeds'.
- Use of conditional clauses to form relations of:
 - Sequence e.g. 'When pollinators feed on nectar they collect pollen ...'
 - Consequence e.g. 'If we continue to change ... wildflowers will increase ...'



3. You can also create a gap-fill (cloze) exercise by taking out a selection of key verbs or other parts of speech from the text e.g.

collecting letting cutting changing

Many Local	Authorities and c	ther organ	nisations acr	oss Wales
are	how they look af	ter grasslar	nds in our p	arks and on
road verges	s. They are	the flowe	rs grow for	longer so
they can ma	ake seeds. They ar	e a	and	the grass
later in the	summer.			

young meadow grass mini-beasts eggs shelter invertebrates

Long	and wildflowers give	for insects to	
lay their	and for their	to feed and develop.	
Other invert	ebrates or alse	o like living in or under lon	ger
grass. More	than 1,400 species of	can live in a	



Comprehension texts and activities

There are two comprehension texts. The first, It's for Them — Meadow Food Chain, is a simple, short text that describes food chains in a meadow.

The second text, It's for Them — Meadow Food Web, is a more complex, longer text. It describes the animals that can be found in a meadow habitat and the kind of food web it supports. This will help children understand how plants and animals are interconnected.

Choose which text would best suit the children. Alternatively, you can start with the first comprehension text and extend children's learning by moving on to the second.

- Explain to the children why more meadow-like areas are being created and how this will help wildlife.
- Read through the comprehension text with the children.
- Work in groups to discuss and answer the questions.
- Support the children in completing the food chain or food web activity.
- You can also adapt the text to make gap-fill (cloze) exercises like the examples from the Explanation Text Type above.

Crossword puzzles

There is a crossword puzzle for each of the two comprehension texts.

Word Searches

There are two word searches. The first is on animals that can be found in a meadow. The second is on key words connected with meadows. Many of the key words are in the comprehension texts. Pollinator, pollen and nectar are not in the comprehension texts but are included in the explanation text.



It's for Them: Changing mowing to save wildlife – Explanation Text

Many Local Authorities and other organisations across Wales are changing how they look after grasslands in our parks and on road verges. They are letting the flowers grow for longer so they can make seeds. They are cutting and collecting the grass later in the summer. There are several reasons for this.

Short grass may look tidy but it is not very good for wildlife. There are not many places for wildlife to live or shelter in short grass and there is little food for them to eat. To help wildlife, we can change the way we cut grass in parks and on road verges. If we cut the grass less often, it gives wildflowers a chance to grow.

Wildflowers have pollen and nectar. This is food for insects known as pollinators. Bumblebees, solitary bees, honey bees, hoverflies, butterflies, moths, flies, beetles, wasps and various other insects are pollinators.

When pollinators feed on nectar they collect pollen on their bodies from the male parts of the flower. When pollinators go to feed on a new flower of the same kind, they move pollen on to the female flowering parts. This is called pollination.

Many plants need pollination to make seeds. Fruit and nuts contain seeds. Seeds grow into new plants. The seeds, fruits and nuts made by plants feed other animals.

Plants and pollinators depend on each other. Three quarters of flowering plants in Britain need pollinators for them to make seeds. Without pollinators, the plants cannot produce seeds and without the flowers the pollinators would not have food.

Long grass and wildflowers give shelter for insects to lay their eggs and for their young to feed and develop. Other invertebrates or mini-beasts also like living in or under longer grass. More than 1,400 species of invertebrates can live in a meadow.

A meadow is a field made up of native wildflowers and fine grasses, which are left to grow tall and are not cut until late summer.

Over the summer, plants make seeds for next year's wildflowers.

Cutting the grass after the seeds have fallen to the ground gives more flowers a chance to grow the following year.

Lots of invertebrates like earthworms and ants live underground. They make tunnels and break up the soil. Flowering plants with long roots are also good for soil. Mowing less often stops soil becoming too packed down. Looser soil helps to soak up rainwater, which reduces flooding and drought.

The soil underneath grassland stores carbon. Storing carbon in the soil can help slow down Climate Change. Meadows with a greater variety of plants store more carbon than grasslands with less variety.

If we continue to change the way we manage our grasslands, over time, wildflowers will increase and year-on-year our parks, verges and other green spaces will become more like wildflower meadows. Even if some patches are small, they will all add up to a big area and wildlife will be able to move between connected habitats.

Comprehension Text 1

1. It's for Them — Meadow Food Chain

A meadow is a field made up of wildflowers and grasses, which are left to grow tall and not cut until late summer. Over the summer, plants make seeds for next year's wildflowers. Cutting the grass after the seeds have fallen to the ground gives more flowers a chance to grow the following year.

All plants and animals need energy to live.

Plants get energy from the sun. Plants can make their own food through photosynthesis. They are called producers because they make their own food.

Animals cannot produce their own food. To get energy they need to eat plants or animals. They are called consumers.

A food chain shows how energy passes from plants to animals.

In a meadow, plants are eaten by beetles, which are insects. Insects are eaten by small animals such as shrews. Small animals are eaten by bigger animals like owls.

Plants > Insects > Small animals > Bigger animals

Plants are usually at the start of the food chain because they are producers. Bigger animals are usually near the end.

A food chain shows how animals need plants and other animals to live. If you take away one part of the food chain it will affect other animals. If there were no insects, there would be a lot less food for the small animals. If there were fewer small animals there would be lees food for the bigger animals.

Letting plants grow in parks and on grass verges gives food for insects. Having more insects is important because they are food for other animals.

Questions:

- 1. The sun provides energy for all living things. **True / False**
- 2. A beetle is a producer. **True / False**
- 3. Why are animals called consumers?

4. Put these words in the correct order to make a food chain:



5. Make up your own food chain.



Comprehension Text 2

2. It's for Them — Meadow Food Web

A habitat is a place where plants and animals make their home. A habitat needs to have enough food, water and shelter for 'them' to live and be able to make new plants and animals. A meadow is a field made up of wildflowers and grasses, which are left to grow tall and not cut until late summer. A meadow is a habitat for many plants and animals.

A food web shows how the plants and animals that live in a habitat are connected by what they eat.

All living things need to get energy. Plants get energy from the sun. They make their own food through photosynthesis. Plants are called producers because they make their own food. Insects and other mini-beasts are animals that have no backbones. We call them invertebrates. There are many different kinds of invertebrates. Beetles, bees, flies, earthworms, butterflies, moths and ants are all invertebrates.

Animals cannot produce their own food. They have to eat plants or other animals, so they are called consumers. Animals that eat other animals are called predators. The animals they eat are called prey.

In a meadow, many invertebrates eat plants. Invertebrates and plants are food for other wildlife.

Mammals, like field mice, voles and shrews, eat plants and invertebrates found in meadows. Hedgehogs mainly prey on slugs, snails, beetles, earthworms and other invertebrates. At night, bats catch flying insects.

Amphibians such as frogs and toads, and reptiles, like lizards and slow-worms, eat invertebrates. Grass snakes are also reptiles and they prey on frogs, toads and small mammals.

Some large birds and mammals prey on amphibians and reptiles. To avoid been eaten, lizards and slow-worms can fool their attackers by shedding their tails. They can regrow their tails but they usually grow back shorter.

Small birds, like finches, eat seeds from wildflowers. Goldfinches use their pointed bills to pull seeds out from plants like dandelions. Other birds such as swallows, swifts and house martins catch insects while they are flying. Larger birds, like kestrels, buzzards and owls, prey on invertebrates, small mammals, reptiles and amphibians. Kestrels are good hunters and can see a beetle from 50 metres away. Barn owls have special feathers that help them fly very quietly. This allows them to hear their prey moving on the ground and sneak up on them without being heard.

Meadows are good habitats for wildlife. Letting grass and wildflowers grow in parks and on verges makes them more like meadows and creates more places for plants and animals to live.

Questions:

1. What is the difference between a producer and a consumer?

4. Can you name 10 predators that feed in a meadow?

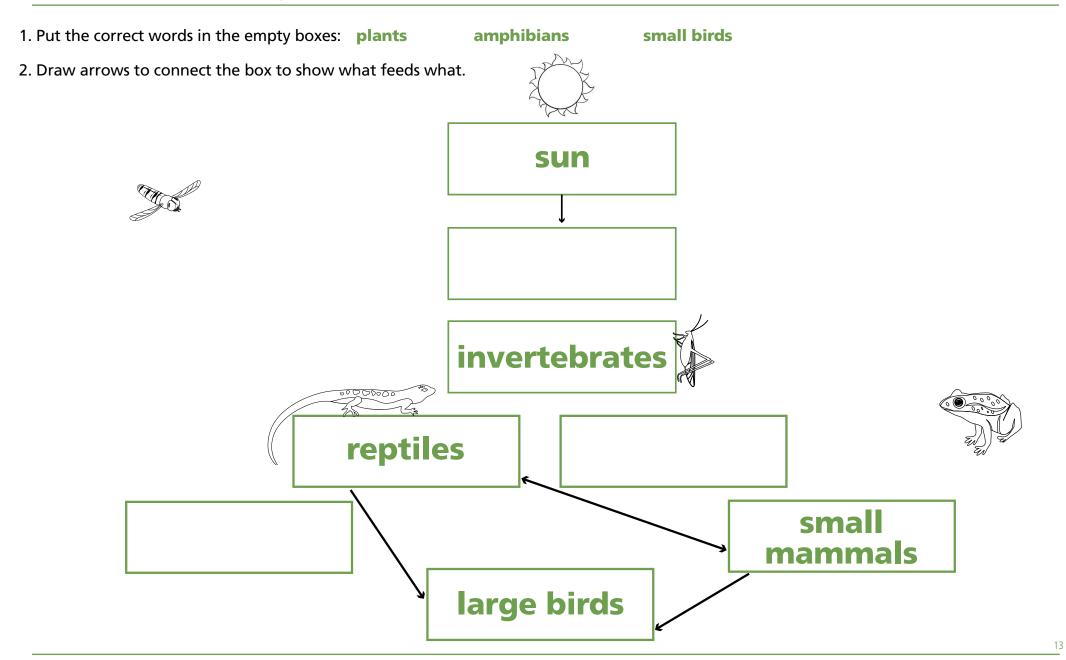


2. In a meadow, which animals eat plants?			
3. Can you name 10 prey that can be found in a meado	w?		

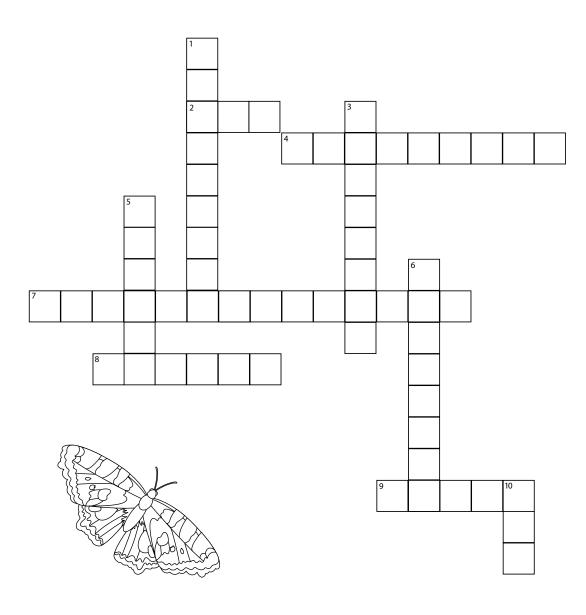
5. Why is it important to let the grass and flowers grow?

6. Complete the food web activity.

Food Web Activity



It's for Them: Meadow Food Chain Crossword

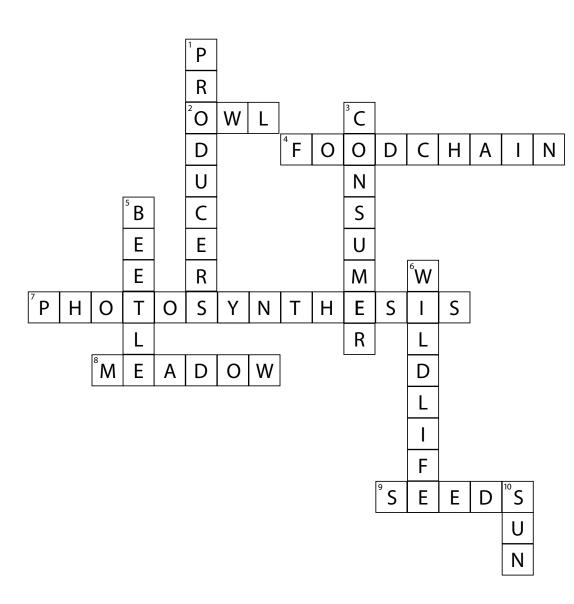


Across

- 2. Bird that eats shrews. (3)
- **4.** Diagram that shows how energy passes from plants to animals. (4, 5)
- 7. Plants make their own food through this process. (14)
- 8. Place where wildflowers and grasses grow in summer. (6)
- 9. Needed for new plants to grow. (5)

- Plants are called this because they make their own food.
 (9)
- 3. What we call animals that eat plants or other animals. (9)
- 5. Insect that a shrew might eat. (6)
- **6.** Letting grass and wildflowers grow provides food for what? (8)
- 10. Provides energy for all living things. (3)

It's for Them: Meadow Food Chain Crossword: Answers

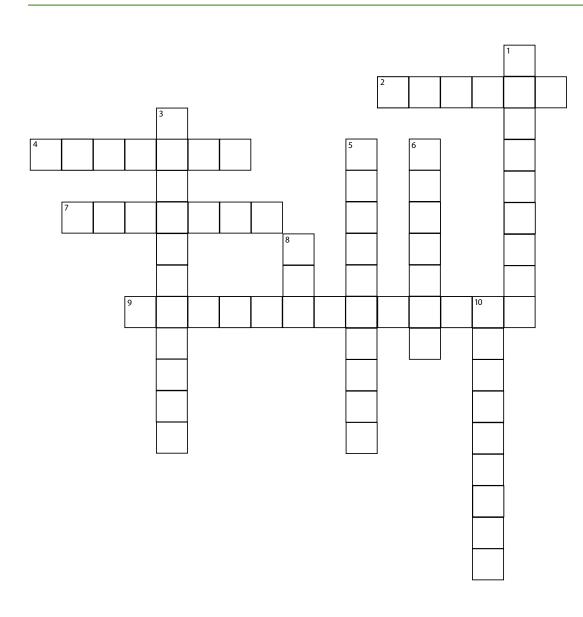


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It's for Them: Meadow Food Web Crossword



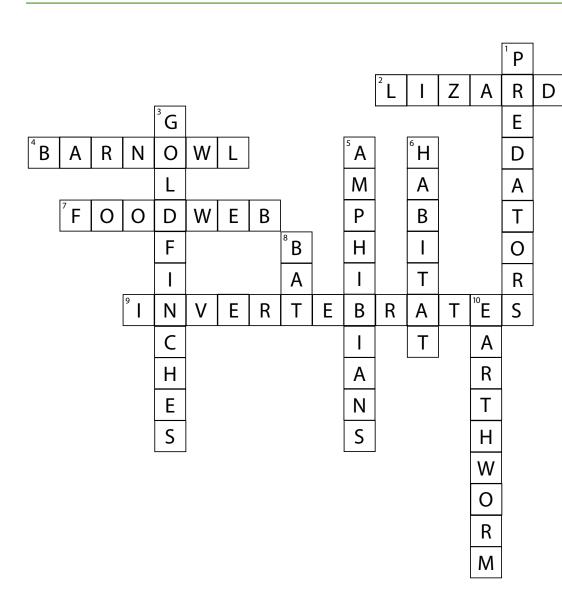
Across

- 2. Animal that can fool attackers by shedding their tail. (6)
- 4. A silent night-flying hunter. (4, 3)
- 7. Diagram showing how plants and different animals are connected by what they eat. (4, 3)
- 9. Animals without backbones. (13)

- 1. Animals that prey on other animals. (9)
- 3. Birds with a pointed bill used to pull out seeds. (11)
- 5. Group of animals that frogs and toads belong to. (10)
- 6. Place where plants and animals make their homes. (7)
- 8. Mammal that flies at night and eats insects. (3)
- 10. Animal that a hedgehog eats. (9)



It's for Them: Meadow Food Web Crossword: Answers



Across

- 2. Animal that can fool attackers by shedding their tail. (6)
- **4.** A silent night-flying hunter. (4, 3)
- 7. Diagram showing how plants and different animals are connected by what they eat. (4, 3)
- 9. Animals without backbones. (13)

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- 8. Mammal that flies at night and eats insects. (3)
- 10. Animal that a hedgehog eats. (9)

It's for Them: Animal Word Search

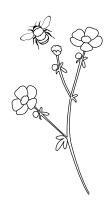
Find the words in the Word Search Grid.

ant buzzard	f	i	k	е	c	1	w	р	f	ı	i	Z	а	r	d
goldfinch	a	i	f	а	t	k	у	t	0	а	d	0	0	u	m
moth swallow	V	X	b	r	р	X	k	u	i	b	W	е	W	h	V
beetle earthworm	j	Z	е	t	0	d	g	I	b	I	ı	е	X	I	р
hedgehog	q	S	е	h	a	g	b	u	m	b	I	е	b	е	е
owl swift	ı	w	t	W	f	f	р	ı	c	0	ı	w	a	a	V
bumblebee	c	i	I	0	u	j	Z	d	h	V	h	n	Z	0	0
fly kestrel	р	f	е	r	h	q	r	d	k	е	S	t	r	е	I
shrew toad	S	t	I	m	у	a	е	n	X	g	k	t	0	р	е
butterfly	n	b	X	у	z	b	q	m	h	S	h	r	е	W	р
frog lizard	a	Z	m	Z	b	u	t	t	е	r	f	I	у	i	W
snail vole	i	n	u	t	h	t	0	h	е	d	g	е	h	0	g
MMMMM	ı	b	n	n	n	m	V	V	g	f	Z	n	i	n	у
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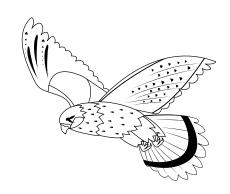
It's for Them: Key Words Word Search

Find the words in the Word Search Grid.

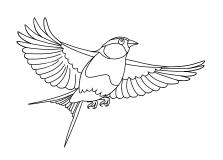
amphibians
habitat
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pollinator
producer
birds
insects
nectar
predator
reptiles
consumer
invertebrates
pollen
prey
seeds



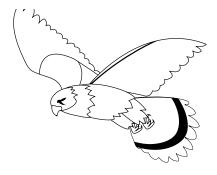
k	X	V	m	у	Z	h	b	i	r	d	S	Z	f	i
a	j	m	S	j	k	i	n	t	i	k	r	q	у	I
m	f	р	0	I	I	е	n	u	m	a	b	е	h	W
p	u	р	0	I	I	i	n	a	t	0	r	t	h	I
h	а	b	i	t	а	t	е	q	r	p	C	V	C	р
i	n	V	е	r	t	е	b	r	а	t	е	S	0	r
b	е	m	i	m	t	h	X	a	n	у	k	е	n	0
i	c	q	n	у	X	i	u	р	q	m	Z	u	S	d
a	t	u	S	X	р	r	е	d	a	t	0	r	u	u
n	a	b	е	d	у	i	е	S	j	n	р	n	m	c
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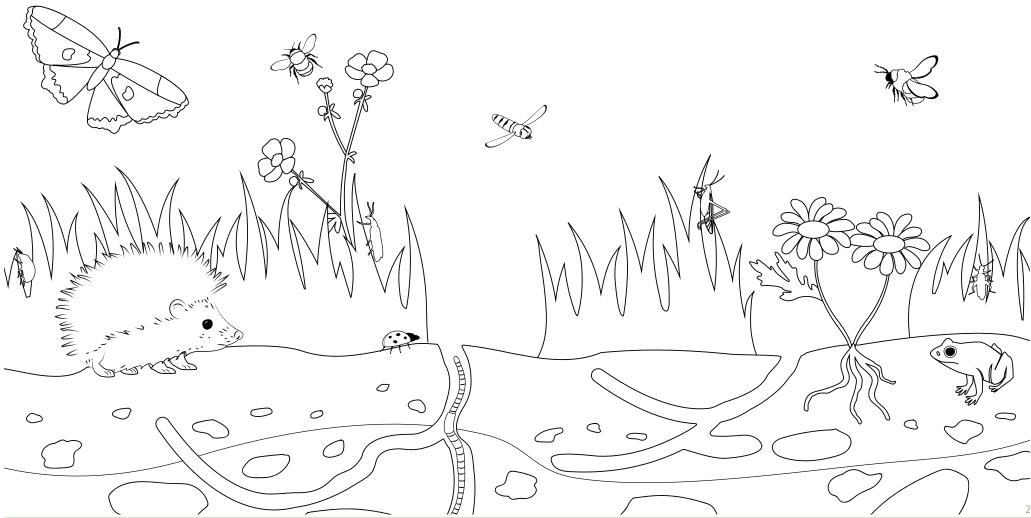


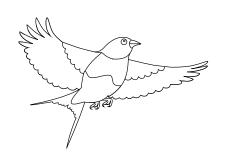


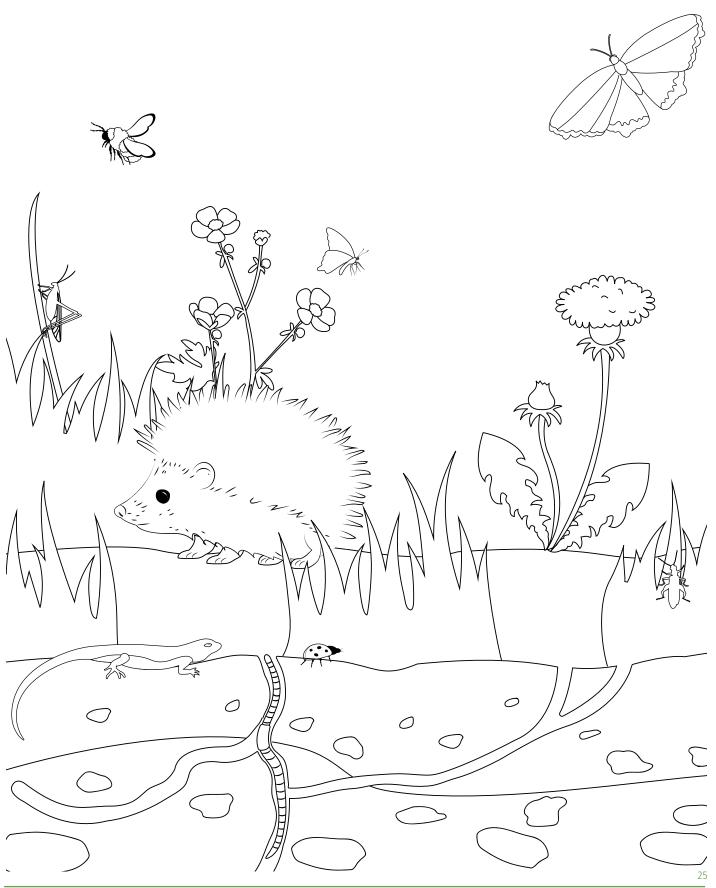












Could you change how you cut the grass in some areas in your school?

There is support for schools to help pollinators and other wildlife. Local Places for Nature is Welsh Government's initiative to create nature on your doorstep. It is helping public sector organisations, including schools, to change their mowing practices and expand the areas where they can enhance biodiversity.

For more information, contact your <u>Local Nature Partnership</u> <u>coordinator</u>. They have valuable expertise and knowledge. They can give advice on how to increase nature in your school.

The Bee Friendly scheme is an initiative to encourage schools and communities to take action to help all pollinators. It is divided into four themes.

The four themes are:

- Food providing pollinator-friendly food sources in your area
- Five Star accommodation providing places for insect pollinators to live
- Freedom from pesticides (this includes insecticides and herbicides) — committing to avoid chemicals that harm pollinators
- Fun involving people and telling them why you are helping pollinators

Cutting grass less often provides both food and shelter for pollinators and is an action that will help you meet the first two Bee Friendly themes. Please look at the Bee Friendly Action Guide to see what other actions you can take to make our world a little bit better. The Bee Friendly webpage also has other useful materials such as: a plant list, a Planting for Pollinators booklet (which includes a section on cutting grass less often on pages 21-23), posters and case studies that we hope will inspire you. Maybe you would like your class to work towards achieving the Bee Friendly award. Let them know about the four different themes and discuss with them what actions they would like to take.



Useful links:

Buglife Cymru – Top Tips for Pollinators: https://issuu.com/buglifecymru/docs/top_tips_for_pollinators

Art ideas and mask making: www.pontcymru.org/dolau-dyfi/arts-activities/

Art and cultural activities: meadows.plantlife.org.uk/about-meadows/community-meadows/

Friends in the Fields: meadows.plantlife.org.uk/about-meadows/community-meadows/friends-in-the-fields/

Beginners' Bugology: meadows.plantlife.org.uk/about-meadows/community-meadows/beginners-bugology/

It's for Them campaign: stakeholder toolkit: www.gov.wales/its-them-campaign-stakeholder-toolkit

Resilient Green Spaces – Greener Corridors and Spaces: www.farmgarden.org.uk/resilient-green-spaces/greener-corridors-and-spaces

Nature Isn't Neat: www.monlife.co.uk/outdoor/nature-isnt-neat/

Local Nature Partnership coordinator contacts: www.biodiversitywales.org.uk/Local-to-You

Bee Friendly Scheme: www.biodiversitywales.org.uk/Bee-Friendly

Bee Friendly Action Guide: www.biodiversitywales.org.uk/File/264/en-GB

Planting for Pollinators: www.biodiversitywales.org.uk/File/809/en-GB

Road Verges and Amenity Grasslands Supporting Wildlife: www.gov.wales/road-verges-and-amenity-grasslands-supporting-wildlife

Acknowledgements

Many thanks to Daisy Moss, Owen Moss and Idris Leeming-Hicks for their valuable advice in designing the colouring-in templates.

Thanks also to Chloe Harris and Aimee Harris for their feedback and for suggesting including word search and crossword puzzles.

We would also like to thank Local Nature Partnership coordinators and Local Places for Nature officers for their advice in developing this education resource.