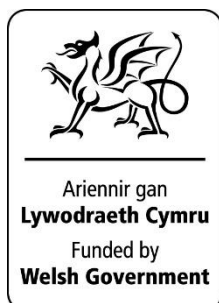




Topic based resource

Biodiversity

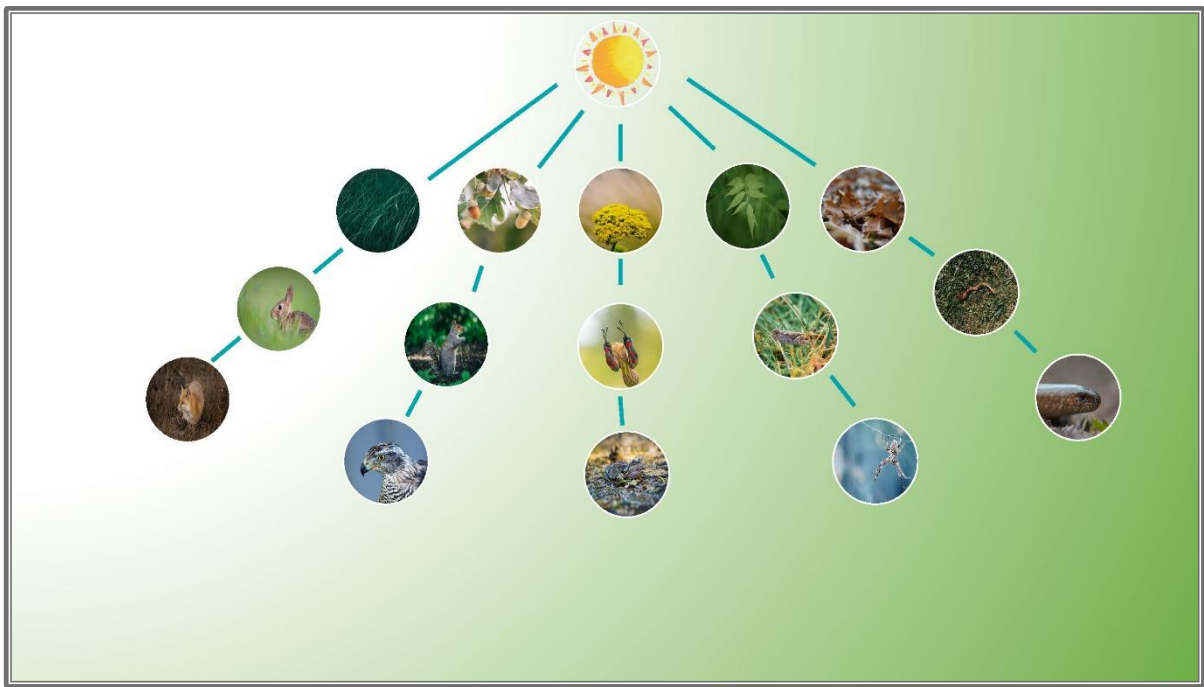
Lower Key Stage 2



cadwch keep
gymru'n wales
daclus tidy

Background information

Food chains are a part of everyday life and we can use them to explain how energy flows from the sun, through the eco system and how some of it flows into us and gives us the energy we need to go about our daily lives. All the natural world relies on energy from the sun from plants through insects, birds and on to the top predators. Understanding energy flow and food chains allows children to grasp how we must be careful not to disrupt the eco system and the consequences of our actions on different species



Climate perspective

It is well documented that rapid changes in climate can drastically affect eco systems. Although there have been changes in climate throughout history, when it happens at speed there is no opportunity for species to adapt which results in a loss of biodiversity. Each species lost influences other areas of the eco system. If it is a prey species lost it causes food shortages for predators or if a predator for a particular species is lost, then that causes over population of the prey species and no

predator to control it. As the climate warms there is evidence of species succeeding in areas they have not previously been found and pushing out the native species. Some have been introduced such as the Signal Crayfish, but others have found their own way such as the Harlequin Ladybird. This is a problem that is becoming more and more common, and steps must be taken to protect our native wildlife.

Are you in my chain?

Lower KS2

Food Chains

This activity allows children to work out different food chains using the cards provided and gain an understanding that all food chains start with the sun which is constantly giving us energy. They can then go on to create their own cards to make a food chain.

This activity is best done entirely outdoors so that there is space to move around and being surrounded by nature will help them to understand the energy flow.

Materials needed:

- Food chain cards (enough for the whole class). These are better printed onto A3
- Blank cards



Step 1

Before the session starts, sort the food chain cards so you have one card per child making up complete food chains.

Step 2

Ask the group to stand in a circle and give every child a card which they hold up in front of them so everyone can see it. As you go round the circle ask each child to identify where in a food chain they would fit e.g. if they have the sun they are at the start of the chain or if they are the mouse they can identify what they might eat and what may eat them.

Step 3

Ask the children to work together to get themselves into food chains of 4 (1 of which will always be the sun). There may need to be a bit of shuffling about to fit everyone into a chain as there is some cross over of who eats particular things. When they are happy with all the chains ask them to explain each chain to the rest of the group.



Step 4

Discuss why the sun is at the start of each chain. The sun is the source of all our energy and the energy flows through the food chain. Ask the children what they had for breakfast. That breakfast is the source of their energy for the morning so can they describe the energy flow from the sun to them. E.g. if they had cornflakes then the energy flow is Sun-Corn-Humans and Sun-Grass-Cow(milk)-Human.

Step 5

Ask the children to work in groups and explore the grounds to find evidence of food chains and fill in the blank cards. E.g. Is there grass? Are there any herbivorous insects? Are there any birds around? They may not be able to find any creatures but is there evidence e.g. a leaf that has been nibbled by a caterpillar, remains of a spider's web or a blob of bird poo on a bench.

Curriculum Links

Area of Learning and Experience - Science and Technology

Statement of what matters:

The world around us is full of living things which depend on each other for survival.

Forces and energy provide a foundation for understanding our universe.

Area of Learning and Experience - Humanities

Statement of what matters:

Our natural world is diverse and dynamic, influenced by processes and human actions.

Next steps and other ideas

- As a next step try the web of life activity. <https://kidszoo.org/wp-content/uploads/2014/02/Web-of-Life-Game.pdf>. This explores what happens when something in the eco system is lost.
- Explore a food chain from a different environment as an opportunity to learn about animals in different countries.



Wheat



Mouse



Barn Owl



Leaves



Snail



Song Thrush



Grass



Rabbit



Fox



Goshawk



Squirrel



Acorns



Frog



6 Spot Burnet Moth



Wildflowers



Blue Tit



Caterpillar



Sycamore Leaves





Ash Leaves



Grasshopper



Spider



Dead Leaves

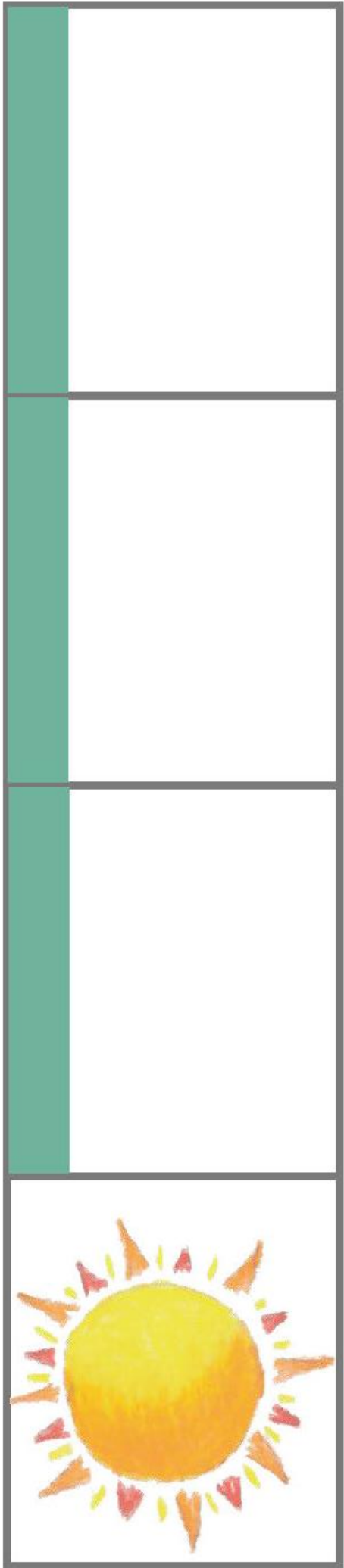
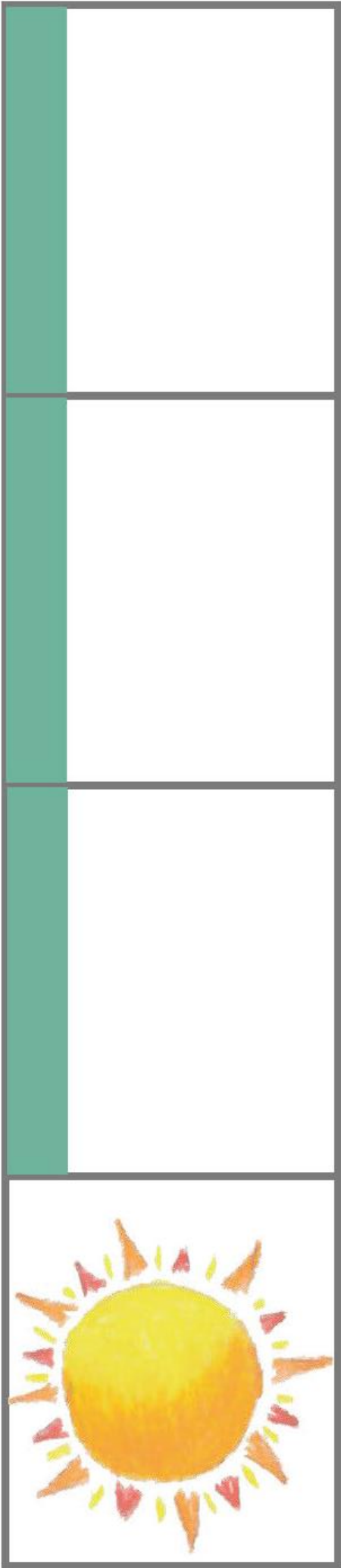
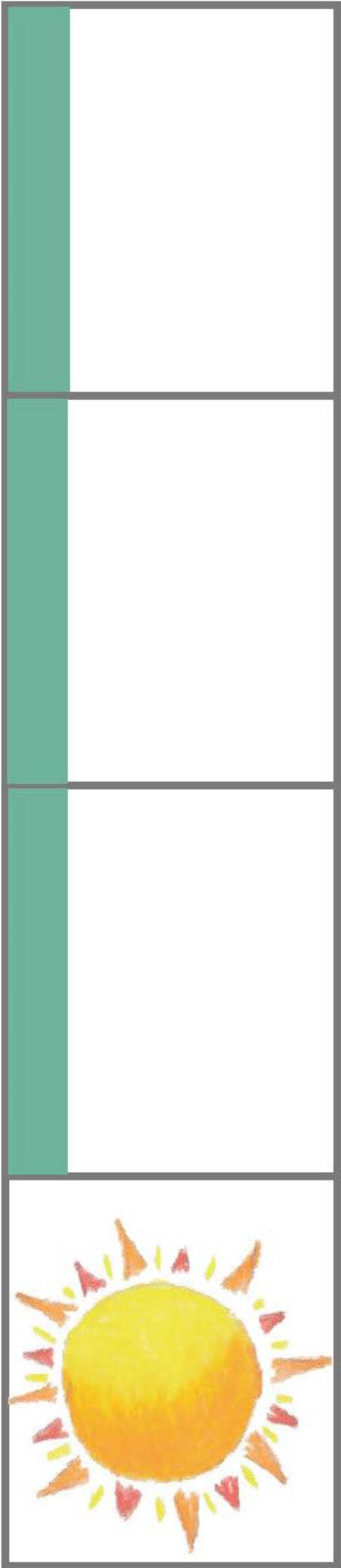


Earthworm



Slow Worm







cadwch keep
gymru'n wales
daclus tidy

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