



Making maths buzz

Learning Objectives:

- Understand that maths can be used to help us make changes to our (school) environment.
- Understand that maths happens in everyday situations and is all around us.
- Improve understanding of the importance of insect pollinators, the human impact on nature and the need to conserve wildlife habitats.

Key Topics: Maths, geography, design

Location: Indoors

Equipment: Copies of maps (if you have finished the 'Mapping a World for Pollinators' exercise, use these maps).

Key Words: Habitat, Pollinator, Flower, Nectar, Seed, Area, Map



Background:

Wildflower meadows and bugs can be fascinating things to learn about. Pollinators fly around our countryside looking for pollen and nectar to feed on. How far do they have to travel to find it in your area? Meadows are not as common as they used to be and lots of schools are creating meadows in their school grounds. Lots of seed is needed to create a meadow and we are going to look at the different sorts of seed that we might use.

Activity 1: How many flowers?

For a successful meadow, it is best to use a good mixture of different wildflowers. Wildflowers need space to grow. Generally, around 1.5 grams of seed is needed for every metre squared of meadow.

Key stage 1

Using your map, work out the area of green space , e.g. parks and gardens. You might have worked this out in our 'Mapping a World for Pollinators' exercise. Calculate how much seed is needed to create wildflower meadows in all of these green spaces.



Weights and seeds

Wildflower seeds come in different shapes and sizes, this means that they have different weights. Look at the list below to see how 1g of different flower seeds can contain a very different number of seeds.

Agrimony 55 seeds

Foxglove 10,000 seeds

Ox-eye daisy 2000 seeds

Wild carrot 500 seeds

Clover 750 seeds,

Field scabious 150 seeds

Red campion 1000 seeds

Yellow rattle 300 seeds.



Activity 2: Key stage 2

How much wildflower seed do you need for your meadows? If 1.5g of seed is needed for 1 metre how many grams of seed is needed for 1 kilometre? Use the total area calculated for your green space to work out how many grams of seed you will need, how many kilograms is this?

Next, design a mixture of wildflower seed you would like to use; you can use some or all the different types of wildflowers. For the number of grams of seed calculated, how many of each type of flower seed will you need? Work out grams and kilograms needed for each wildflower. Using the calculation for total wildflower seed, work out the percentage for each type of seed you will be planting. Make a chart to show your findings.



Activity 3: Make a meadow

Key stage 1 and 2

If you have completed the 'Our School Grounds' exercise, you might have identified an area where you can create a meadow. Following the exercises you have completed above, measure the area of your meadow site and calculate how much seed you will need for your meadow.

If the average cost of wildflower seed is £100 / kilogram, what is the value (in £) of the seed you will need to buy.

Talk to your teachers to see if you can help to make your school meadow.

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