

Grow Sunflowers, Make Plant Pots



ks1-ks2-scientific and technological understanding

This resource from the NNFCC explains how pupils can grow their own sunflowers and how plant oils can be made into plastic.

Farmers grow crops in their fields. We can make crops into food, plastics, fuels and lots of other things! A common crop with yellow flowers is oilseed rape. Sunflowers are another yellow crop grown by farmers. Have you heard of sunflower oil? You probably have some in your kitchen. Sunflower oil comes from sunflower seeds.



Did you know: you can make plastic out of sunflower oil?

Sunflowers are pretty, their flowers can be red, orange or yellow. They also grow fast and tall: 3 metres high in 6 months, which is taller than you! This is why we like to grow them in our gardens.



Here you can find out how to grow your own sunflowers. When you grow a sunflower, you plant a single seed, and you end up with a flower that contains many seeds! All you need to do is plant a sunflower seed in some soil, add water and leave it somewhere sunny.

Why not have a sunflower competition with your friends? Who can grow the tallest sunflower? Who can make the sunflower with the most seeds?



What to do next

This activity can be done at home, school, on your own or in a group. You can make one seed into lots of seeds... and lots of sunflower oil! You can watch your sunflowers grow and care for them. Plant your seeds in the Spring if you can. Watch your sunflowers grow over the summer holidays. When the sunflower grows and seeds appear in the middle of the flowers you can count the number of seeds that you have made.



Sunflower oil is a renewable material because crop plants can be grown every year on the same land from seeds. The oil we make from plants can be used to make plastic. Take a good look at your plant pot. Some plant pots are made out of sunflower oil that has been turned into plastic. Other plant pots are made from fossil fuels which come from deep underground.

By growing a sunflower you have helped make something that we can use to make plastic, fuel, or food! You may be able to find other things that are made out of sunflower oil or other plants. When you have finished with plant derived plastics, you can use them again or put them in a compost heap. They will disappear in compost after a few weeks because they are biodegradable.



What you need

- Download our instructions sheet - 'How to grow your sunflower'
- Plant pots made out of sunflower oil - or if you can not get any, normal plant pots will do
- Some compost or moist soil - from a garden, compost heap or garden centre
- Sunflower seeds - from a garden centre, or bird seed



Fact!

A field of sunflowers the size of a football pitch would produce enough oil to make 70,000 small plant pots, just like the one you started with.



What you will learn

- Learn how to recognise a sunflower
- How to plant a seed



- See how plants grow from a seed, into shoots, leaves, flowers... and more seeds
- Imagine a whole crop of hundreds of sunflowers growing on a farm - think how much renewable oil and plastic they can make
- Find that oils come out of some seeds when you crush them - rub the seeds from your sunflower on a stone or paper to see the shiny oil
- Renewable materials for making things like plant pots can be grown again and again, from 'non-food crops'
- Plastics can be made out of oils from crops we grow, as well as from fossil fuels out of the ground
- Investigate the properties of renewable polymers
- Teachers conducting this activity could link it with Sustainable Schools doorway theme 1 'Purchasing and Waste'

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