

## Save the Seeds

### A worksheet for Year 6

Inside a seed is a tiny, new plant lying in wait until the conditions are right for it to germinate and grow. Its genetic code has evolved over hundreds of years to give it the best chance to ensure its survival in the world.



Around the world, about 150 different plant crops are grown to provide us with the food we need to eat. Over time, scientists have manipulated the genetic codes of these crops to make them more disease, drought or frost resistant and more nutritious for us. In the last century however, large scale farmers have chosen these easier-to-grow, tougher types of crops and as a result the variety of crops being grown has decreased drastically and their genetic diversity has become less varied.

### Why could this be a problem do you think?

The problem with growing fewer types of crops is that we are now vulnerable to diseases and other natural disasters (such as earthquakes, floods, droughts) that can wipe out our crops leaving us nothing to eat. If we grow a variety of crops, if one fails, we still have others to rely on. As our climate and environment changes, we will need to grow crops that can adapt and cope with these new conditions such as hotter temperatures, wetter weather and more rain.

Agriculture faces a great challenge: in the last one hundred years 93% of known fruit and vegetable varieties have been lost forever. If we want to protect our future ability to feed ourselves, we will need greater biodiversity and crop variety in the plants we choose to grow.

(Biodiversity is the variety and number of species living or growing in a place)

This is why seed saving is so important: we can better survive in the future and grow the crops we need to feed our expanding population, if we save a wide variety of seed types – not just the ones we always grow. The more types we save, the greater the selection of plants we can choose to grow and work with.

### So where should we keep these seeds?



## Seed Banks

Seed banks are specialist places where seeds can be protected and safely stored for hundreds of years.

### How do they work?

Seeds are kept in a dry and cold or frozen state so they won't germinate or start to decay. Sometimes the seeds are allowed to grow into mature plants that then produce new seeds that can go into the seed bank. By doing this we can check the seeds are still viable (alive) as seeds cannot survive forever.

### There are seed banks all over the world. Have you heard of any of them?

One of the largest seed banks is the Global Seed Vault in Svalbard, Norway. This high-tech seed vault was built in 2008 and stores seeds securely from every country around the world – about one third of the world's most important food crops are kept in this highly secure environment. Any country can deposit a sample of their seeds here and take them out whenever they need them.

Seed banks also protect us against other disasters such as war, hurricanes, famines and other events that can wipe out an entire area of crop production.

When this happens, seed banks can provide new seeds and help the local population to start growing their own food again.

Another important seed bank in this country is Kew Garden's Millennium Seed Bank in Wakehurst, West Sussex. There are 2.4 billion seeds from around the world stored underground here. You can visit the site to see the scientists at work and how the seeds are dried, cleaned, processed and stored.

### Seed saving and swapping, creating your own seed bank and other ideas:

Do you grow any crops or plants you can eat at school or home? (Tomatoes, beans, peppers, chillies for example). Research how you can save some of their seeds. When they are ready harvest them, put them into paper packets and bring them into school to swap with your friends. Alternatively, get each person in your class to bring in a different type of seed, make a display (or mini-seed bank) and take a look at the all the wonderful colours, shapes and textures there are.

- You can find out about saving seed, becoming a 'seed guardian' and more [here](#).
- Find out more about seeds banks by visiting the Woodland Trust's website [here](#).
- Watch The Crop Trust's video on feeding the world, crop diversity and seed banks [here](#).

