teacher's resource pack
handy lesson plans, supporting stuff and growing guides
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hello

The innocent big grow is back. And together with growing experts GIY, we’re giving children in schools across the UK and Ireland everything they need to get growing and eating their own veg.

packed with helpful stuff

Inside this booklet you’ll find lesson plans for kids throughout the primary years, which we’ve created working closely with teachers and educational specialists like you. Each activity tells you the curriculum subject it covers, and includes junior and more senior class activities so that children of all ages and abilities can join in. We’ve also given you some extra ideas and suggestions, plus some activity sheet templates. The activities cover a wide range of topics, including recording how fast veg grows, understanding the history of fruit & veg, using the senses, and creating art with fruit & veg.

These growing guides and lesson plans can also be downloaded and printed from the big grow website at innocentbiggrow.com. They’re free and can be copied or printed to give children to bring home – just follow the innocent link to get your hands on them.

We’ll also be sending you a few e-growing guides between March and June with new activities for your class and growing tips, so keep your eyes on your inbox.

win with the big grow

We’re on the lookout for the best growers to win our big grow class of the year award. To choose the best class, we’d love to see how you’re getting on. Send us your growing photos, videos and updates on Facebook, Twitter or Instagram by using #biggrow and @innocent (UK) or @innocentIreland (ROI). Please make sure you have the parent or guardian’s permission before posting images or videos of children on social media.

good luck big growers

love innocent and GIY
the big grow 2019 – what’s new this year?

your veg detective wall chart

This year we’d love you to pick a veg detective each week. This will be someone who’s got their friends and family interested in fruit & veg. The veg detective will wear the badge for the week and report their findings back to the class. You’ll find everything you need to know about the veg detective game in lesson plan 1.

compost discs and growing guides

Everyone will have their own cup and compost disc. These organic peat-free compost discs are the perfect food to start your seeds off with. Made from coconut shells they are great for the planet too. You’ll also find growing guides for peas, cress and tomatoes. Tasty.

reuse and recycle

There’s a bigger focus on recycling and reusing than ever before, especially when it comes to plastic. The need is huge and it’s a great thing to start educating children about from an early age. Even simple things like encouraging children to use tubs or bottles from their recycling bins at home to grow tasty veg in helps. Keep an eye out for some recycling & reuse guidance cropping up along the way in our newsletters.

school’s out: the big grow at home

We’d love children to take their big grow cups home at the weekend and during the school holidays. This will mean they can water their veg regularly and look after them when school’s out. But it’s also part of our cunning plan to get kids to continue growing at home, and get grown-ups excited about it too.

Whether you want your class to bring their growing cups back into school after they’ve taken them home is up to you. If they bring them back, you can carry on with your big grow lesson plans. If they don’t, you could set them some homework challenges instead.

a few fun things children can do with their growing cups at home

• Get them to create a nice little space for their big grow cup to call home (seedlings love sunny windowsills). You could also ask children to make a little sign, so everyone at home knows how to take good care of them.

• Ask them to take their big grow cup on a sightseeing tour of local landmarks, famous buildings and their gran’s house.

• See if they can take photos of any other sowing and growing their family is doing at home (we’d love to see them).
A little guide to growing cress

Cress is really simple and quick to grow, and you can grow loads of it even if you don’t have much space.

You’ll be sowing your cress seeds in your big grow cups, but you could also try putting some seeds on damp tissue paper or kitchen roll, as they will grow quite happily there too.

Cress grows indoors at any time of year, and you can usually start picking your cress to eat about a week after sowing.

As a green leafy vegetable, cress has more iron than spinach, more calcium than milk and three times as much vitamin E as lettuce. It’s also an excellent way of getting some vitamin K and A.

sowing
1. Start by getting your hands dirty, popping one compost disc into each of your cups.
2. Add 100-150ml of warm water and give it a stir. As if by magic, your compost will bulk out.
3. Bang it on the table a few times to help the compost lie nice and flat.
4. Sprinkle the cress seeds onto the compost.
5. Water and leave it on a sunny windowsill indoors.
6. Check your cup every day to make sure the compost is moist. If it’s not, water it again (but be careful not to overwater it as the seeds might rot).
growing
The little seedlings will germinate (appear) really quickly – usually within a day or two. If the room isn’t warm enough, the cress might go a bit mouldy (don’t eat it if this happens).

top tips
• Watercress is a type of cress that loves to grow in damp soil, and you’ll often see it growing by streams and rivers. This can be grown the same way as cress, but it needs to be watered a bit more.
• Cress is used as a garnish in restaurants to make dishes look prettier. But it can also be eaten.
• To make your own cress head, put a little ball of damp cotton wool into an eggshell and sprinkle cress seeds on top. Keep the cotton wool moist by watering it every day. Paint a face on the eggshell and, when the cress grows, it will look like a person with green hair. Egg-cellent.

harvesting
To harvest cress, simply cut through the stems with scissors when they’re about 5cm tall. Cress is very tasty in an egg sandwich or in a salad.

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A little guide to growing peas

If you plant a pea seed in the ground, it’ll quickly sprout and become a 4ft tall pea plant with lots of other peas. Since a 4ft pea plant won’t grow very well in a little pot, you’ll be growing pea shoots in your cups instead.

Pea shoots are really good for you because they’re packed with vitamins A & C and folic acid. They’re tastiest when freshly picked, so it’s a very good idea to grow your own.

sowing

1. Start by getting your hands dirty, popping one compost disc into each of your cups.
2. Add 100-150ml of warm water and give it a stir. As if by magic, your compost will bulk out.
3. Bang it on the table a few times to help the compost lie nice and flat in the cup.
4. Put about 2-3 pea seeds on the surface of the compost and push them down until they are about 3-4cm under.
5. Cover over the little holes with a little more compost.
6. Give it a good water.

growing

Keep the cup somewhere warm and sunny. Check it every day to make sure the compost is moist, and if it’s not, water it again. The surface should feel damp, but not too soggy. Your peas should germinate (appear) within seven to ten days.

Don’t forget that peas need support as they get taller. Use sticks of hazel, or other sticks that aren’t too smooth, and the little pea tendrils will grasp onto them. Bamboo sticks are too smooth and the peas won’t be able to grab on.
transplanting
You can transplant your pea plants outside after four to six weeks with these steps:
1. Prepare a planting bed in a sunny spot, removing any weeds and plants.
2. Set up a support system for your peas. Lengths of chicken wire between posts with rows of peas on either side works well.
3. Remove your pea plants from your big grow cups, and dig the holes based on the length of the plants’ roots. Put your big grow cups into your school compost bin.
4. Place your plants in the holes and fill around them with soil, lightly pressing the soil down. Space your peas 2-3 inches apart along the support system.
5. Water thoroughly at the base of the plants after planting. Try not to get the leaves wet.

top tips
• Pea shoots have a delicate flavour and are very tasty in a salad. You could also try adding your pea shoots to a stir fry, wilted into risotto or pasta, or finely chopped into a salad dressing.
• Peas can be grown easily in lengths of old rain guttering. Fill the gutter with potting compost and sow the seeds about 5cm apart. When the seedlings are 8cm tall, dig a trench in the ground about the same depth as the compost in the gutter and simply slide the contents of the gutter into the trench.

harvesting
• When the shoots are about 15cm tall, snip them with scissors an inch from the surface of the soil. The shoots might re-sprout after you’ve cut them and give you a second crop of pea shoots (but there probably won’t be as many the second time around).
• The actual pea pods are usually ready to harvest (pick) about three to four months after sowing. Pinch off the end of the pea shoot when the first pods are ready to encourage your pea plants to make more pods.

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A little guide to growing tomatoes

Home-grown tomatoes are sweet and tasty, and very different to the ones you buy in a supermarket. You can sow tomato seeds anytime between February and April.

Tomatoes are a good source of fibre, giving you about 1.5 grams per tomato. Tomatoes are also a good source of several vitamins and minerals, like vitamin C & K, potassium and folate. While they’re a little trickier than cress to grow, we have some simple steps to make it easy for you.

sowing
1. Start by getting your hands dirty, popping one compost disc into each of your cups.
2. Add 100-150ml of warm water and give it a stir. As if by magic, your compost will bulk out.
3. Bang it on the table a few times to help the compost settle down.
4. Sprinkle 5 tomato seeds over the soil.
5. Water the compost and leave it on a sunny windowsill.
6. Check them every day to see if the compost is moist. If they’re not, water them again.

growing
The little seedlings will germinate (appear) in about two weeks. About two weeks after they germinate, you’ll need to thin out the seedlings, which means removing all but three of them. The seedlings you remove can be placed in another cup. If we leave all the seedlings in the cup there won’t be enough space for them to turn into big plants. Make sure to take out the smaller seedlings, leaving the biggest ones behind to grow.
transplanting
Tomato plants get very hungry. And after about five weeks, they will have used up all the nutrients in the soil and will need to move to bigger pots with fresh soil. This will help them have everything they need to grow into tomatoes – just like we need good nutritious food to help us grow up healthy.

Transplant your tomato plants using these steps:
1. Get three 12cm pots. You can also use the bottom half of an empty plastic bottle (our innocent large juice or smoothie bottles work great). Just cut them in half and poke some holes in the bottom for drainage.
2. Put a 5cm layer of multi-purpose compost into the bottom of your new pots.
3. Carefully lift a seedling and soil out of your old pot (watering them about an hour beforehand will help to keep all the compost together). Sit your plant in a new pot and fill in around it with more multi-purpose compost, firming gently and watering. Repeat for your other two seedlings.

top tips
• In June, your tomatoes will be ready to go into a tomato grow bag, which you can buy from any garden centre. Make sure to make some holes in the base of the grow bag to help with drainage. Take the tomato plants out of their pots before popping them in the bag. Insert a bamboo cane next to each plant and as the they grow, tie the tomato to the cane every 10cm.
• Keep an eye on the number of fruit trusses (branches with fruit on them). When the plant has formed four trusses, pinch off the growing tip (top of the main stem).
• When flowers appear, feed your plant with a liquid organic tomato feed every week.
• At the end of the season, if you have any unripe tomatoes left, put a layer of them in a drawer with a ripe apple or banana. These ripening fruits will give off a gas that helps the tomatoes to ripen.

harvesting
Pick your tomatoes when they are red. Best to eat them before the weather turns chilly.

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lesson plan 1 - using our senses (the veg detective game)

it will take: 45 minutes

curriculum links: science, geography, computing, art and design, drama, English, music

This activity will encourage children to record their experiences of tasting, touching and smelling lots of different fruit & veg. This could be fruit & veg they’ve grown themselves, a selection of tropical fruit or slightly unusual vegetables.

Children will be concentrating on smell, sight, taste and touch, and taking what they learn home with them to test on their families.

Taste and smell are very closely linked. Your taste buds on your tongue sense sweet, sour, bitter and salty tastes. If our nose is blocked (like when you have a cold), then things might taste a bit funny.

main activity

Choose five common vegetables and put each one into a large, opaque bag. Ask the children to put their hands into the bag and take a guess at what they can feel (try using a potato, carrot, runner bean, brussels sprout, courgette and onion).

Now take three or four common fruits. Blindfold the children and ask them to feel each fruit and guess what it is. After, cut up the fruit and ask the children to do a taste test (try using an apple, pear, orange, lemon, grapefruit and apricot). If you can get your hands on some more exotic fruit, ask the children to draw them and then taste them.

using the fruit & veg, ask the children to write down the answers to the following questions on activity sheet 1:

• What does it look like on the outside?
• What does it smell like on the outside?
• What does it feel like on the outside?

now cut the fruit/veg open and ask them:

• What does it look like on the inside?
• What does it taste like?
• What does the flesh inside feel like?
• What does it smell like?
veg detectives

Now for the detective part. Once the children have completed the lesson plan in class, ask them to test their detective powers at home with their families. The aim of the veg detective game is to get kids talking to their families about healthy eating. There are lots of ways they can do this:

• Ask their family members what their favourite fruit & veg is (using the clues on the activity sheet).
• Find out if their parents/guardians/grandparents grew fruit & veg before – if they did, what did they grow? Where did they grow it? Who taught them how to do it?
• Draw a picture of their garden/balcony at home if they have one.
• Draw a picture of their favourite dinner. Does it have vegetables in it?

The veg detective will tell the class what they’ve found out. And as the weeks go by, the children can compare their family findings.

Put your wall chart up in class and write the name of your winning veg detective on the chart for all to see. It’s up to you how you’d like to choose your veg detective, but here are a few ideas:

• a curious child who loves learning about food and healthy eating
• someone who has wowed you with endless GIY tips, facts and growing know-how
• an eager beaver who’s shown great care towards the big grow seedlings, keeping them watered and making sure the conditions are just right
• someone spreading the word at school and at home, and encouraging others to get sowing and growing.

extra ideas

• Arrange a visit to a local fruit & veg market. Speak to some of the stall holders and find out where they get their produce from.
• Using a large map of the world, get the children to mark out where fruit & veg comes from (eg kiwi fruit, mango, cape gooseberry, durian, star fruit, yam, plantain).
• Have a harvest day – make salads from the cress and pea shoots or get children to bring in their favourite veg from home for a picnic.
• Encourage the children to find out how bees pollinate different fruits. Plants attract bees in lots of different ways, with colour and scent both very important.
• Talk through which vegetables grow beneath the ground and which ones grow above ground, and why. Does all fruit & veg grow from seeds? Discuss how germination works.

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lower range activities (UK) or junior infants to 2nd class (Ireland)

Younger children could draw pictures at these growing stages:
• as a seed
• when they first see a shoot above the soil
• once the seedling has grown to 2cm
• once it has grown to 3cm.

upper range activities (UK) or 3rd class to 6th class (Ireland)

• Ask the children to keep a diary, writing down what happens at the planting stage, as well as the different stages of growing. The children can add to the diary every day or every week. The day or week should be written at the top of the page (eg day one, week one) along with a little bit about what the seeds/plants look like.
• Take photos of the plants at the different stages of growing and stick them in a scrapbook. Next to each photo, ask them to write a few lines about the growing process and how they looked after the plant as it grew.

extra ideas
• Go outside and ask the children to record all the plants they can see and describe them in detail. Are they big, small, leafy etc?
• Get the children to use the internet to find out the world record for the biggest/heaviest vegetables – such as carrots, leeks, runner beans and marrows.
• Ask the children to find out the favourite veg of their friends and family and draw a picture for each person.
using my senses

In this activity, you’re going to be using some of your senses

taste  smell  touch  sight

First pick your vegetable. Now, using your senses, answer these questions:

What is your vegetable called?

What does your vegetable look like?

What does your vegetable feel like?

What does your vegetable smell like?

Now ask your teacher to cut your vegetable open and then answer these questions:

How is your vegetable different on the inside?

What colour is your vegetable on the inside?

What does your vegetable smell like?

What does your vegetable taste like?

Now choose a fruit and answer these questions:

What is your fruit called?

What does your fruit look like?

What does your fruit feel like?

What does your fruit smell like?

Now ask your teacher to cut your fruit open and answer these questions:

How is your fruit different on the inside?

What colour is your fruit on the inside?

What does your fruit smell like?

What does your fruit taste like?

name  class
veg detective

Ask a family member to think of their favourite vegetable

Who am I investigating?  
What does your vegetable feel like?

What does your vegetable feel like on the outside?  
What does your vegetable smell like?

What does your vegetable look like?  
I guess...

Ask a family member to think of their favourite fruit

Who am I investigating?  
What does your fruit feel like?

What does your fruit feel like on the outside?  
What does your fruit smell like?

What does your fruit look like?  
I guess...

Draw a picture of the right answers here:
lesson plan 2 - growing power

it will take: 30-40 minutes

curriculum links: science, English, geography, art and design, computing

This activity focuses on the growing process and teaches children how different things grow in different places.

For plants to grow and survive, just like us, they need lots of good stuff to grow well and happy:
- water (needed to produce food)
- oxygen and carbon dioxide – oxygen is used for photosynthesis and carbon dioxide for respiration
- somewhere safe to grow
- minerals – iron and magnesium salts are used to help produce chlorophyll, while other minerals are needed for protein and producing DNA
- sunlight – this is needed for photosynthesis
- space – as seeds compete against each other, plants need enough space to grow
- warmth – plants grow better in warmer temperatures, and usually stop growing under 6°C (some plants, like spinach, won’t grow if it’s too hot)
- a system of pollination – this is needed for plants to develop their seeds and reproduce.

main activity

Give everyone four identical plant pots. Fill one with gravel, another with sand, another with special potting compost, and the last one with rich soil. Ask the children to sow some cress and pea seeds in each pot and put the pots somewhere light (see the growing guides for a bit more help).

Make sure the soil is kept damp, and ask your class to keep an eye on the seeds to see what happens. After a few days, see if any of the seeds have started to germinate. Ask the children to watch them grow over the next few weeks and, at the end of it, ask them which they think the strongest plants are and why. They can record their findings using activity sheet 2.
activities (UK) or junior infants to 2nd class (Ireland)

Find a medium size potato with black ‘eyes’, cut it in half and pierce it with a few cocktail sticks. Suspend the potato in a jar of water, making sure that some of the black ‘eyes’ of the potato are covered with water. Put the glass somewhere sunny (topping up the water to make sure the ‘eyes’ are covered). After a few days, ask the children to watch what happens to the potato. What changes happen over the week?

upper range activities (UK) or 3rd class to 6th class (Ireland)

• For this activity you’ll need a small shoe box and a sprouting potato. Make a round hole in one end of the box, then put the potato at the other end, away from the hole. Put a lid on top of the box, and leave it so that light can get into the open end. After a few days, take the lid off and see what’s happened to the potato. The shoots of the potato should have found their way to the other side of the box and grown through the hole. Ask the class why they think this has happened.

• Plant a bean and cover it with a small coin. Keep the soil damp, and when the plant starts to grow, it should push the coin upwards, proving how strong seeds can be. Powerful stuff.

extra ideas

• A potato is a tuber, which is an underground stem. Ask the children to find out more about this and put together other groups that different fruit & veg might fit into.

• Get the children to investigate some of the different ways plants reproduce, eg legumes, alliums, root crops and leafy green plants.

• See if the class can find out how people have changed their growing conditions so that they can grow vegetables in difficult places, eg in deserts, on top of mountains and in very cold conditions.
where seeds grow

Have a look in your plant pots and fill in the sentences below:

The seeds in the sandy pot have

The seeds in the pot containing the potting compost have

The seeds in the pot with the gravel have

The seeds in the rich soil have

The pot that was the most successful was

I think this was because

Make a list of all the things you think you need to help things grow:

name

class
lesson plan 3 - keeping a record

it will take: 45 minutes

curriculum links: mathematics, English, science, art and design, computing

This is a great way to teach kids about keeping records through keeping a log of their plants. By growing their own seeds, the children will be able to record the changes they see and measure them over time. There are lots of different ways to keep track of their findings. They could write a diary, draw a mathematical chart, take photographs, or film a video diary.

main activity

Give every child a plant pot, some seeds and a compost disk. Get them to write their name on their pot, and follow the growing guides for their seeds (you might need to give younger kids a hand). Once they’ve planted their seeds, pop the pots onto a tray and put them somewhere light and warm. A windowsill will do nicely.

Using the chart on activity sheet 3, ask your class to record how their seeds grow during the next two weeks. Once the plant pops out from the soil, they should measure it every day and record its height (in centimetres) on the chart. They can do this by putting a little cross at the correct height each day. If the children have planted one of the slower growing seeds, like peas, they could measure the cress instead to make it a bit more interesting.

class discussion

• Once the children have finished recording their growing, ask the them to think about what they’ve seen. You could start by asking:
  • How many days did it take before the seeds started to produce their first shoots?
  • When did the seeds grow the fastest?
  • When did the seeds grow the slowest?

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my growing chart

Measure your plant every week and record it on this chart. Remember, it might take a few days or weeks before you see something happening in your pot so keep your eyes peeled.

weeks after sowing

height in centimetres

name
class
lesson plan 4 - arty fruit and veg

it will take: 40-60 minutes

curriculum links: art and design, design and technology, English, computing, history

There are loads of art and design ideas around fruit & veg. You could make pictures out of seeds, paint different types of clay pots for plants, and make (and decorate) containers to grow things in. Younger children can use fruit & veg for printing. Older children can use pens, pencils, crayons and paints to create a still-life picture.

Many years ago people used fruit & veg to create their own paints and dyes. Archaeologists have found evidence of textile dyeing from as far back as the Neolithic period. Dyes were used for colouring textiles, hair, and the face and body. In Ancient Greece, the outer shells of fresh walnuts and pomegranate flowers were used, while in India, fruit & veg dyes have been around for thousands of years. Dyeing their own textiles means children can learn more about his process, and the history behind it.

main activity

you will need

• A selection of dried seeds eg sunflower seeds or pomegranate seeds and beans (borlotti, kidney and cannellini beans work well).
• Cardboard
• Activity Sheet 4

Using activity sheet 4, ask the children to make a pattern or mosaic with the dried seeds and beans. These can be collected and dried beforehand or bought dry from a supermarket or garden centre.

Safety first. Seeds and beans can be a choking hazard, so please make sure young children don’t play with them. You could use petals and leaves instead.
lower range activities (UK) or junior infants to 2nd class (Ireland)

- Collect some smooth rocks from outside. Paint the name of the plant or a picture of the plant on them to make your own plant marker. These will brighten up any school garden.
- Try making a dye by mashing up some fruit & veg (beetroot, raspberries, blueberries and spinach work well) and add a little bit of water if it needs it. Pop some strips of white material into each bowl and ask the children which fruit & veg made the best dyes, and why. Did leaving the material in the dye longer affect the colour?

upper range activities (UK) or 3rd class to 6th class (Ireland)

- Find a piece of fruit that the children can bite into. Wash the fruit and get them to draw it whole. Then ask them to take a bite out of it and draw it again. They can take several bites out of the fruit and keep drawing it until they are down to the core or until it’s all gone.
- Older children could use the internet to learn more about the work of artists like Amber Locke or Giuseppe Archimboldo who have created works of art using images of fruit & veg.

extra ideas

- Make some bookmarks in the shape of vegetables (such as carrots or leeks).
- Find a big plate and ask the children to make a face using different fruit & veg.
- Have a competition to see who can make a face using the largest number of different fruits or vegetables.
- Find some vegetables that the children can create their own prints with – such as okra or sweetcorn.
- See how many shapes the class can make using lots of different fruit & veg.
strawberry seeds

Stick this sheet to a piece of cardboard. Using the outline, create your own strawberry using lots of different seeds and beans. Once you’ve stuck all of your seeds down, paint over it to make a colourful mosaic.
lesson plan 5 - the history of fruit and veg

it will take: 30-40 minutes

curriculum links: history, English, art and design, geography, computing

This activity will get children looking at the history of fruit & veg in the UK and Ireland, and how and why people from all ages grew different things. The activity sheet also includes a simple timeline which children can add to as they learn more.

Potatoes were said to have been introduced into England in 1586 by Sir Francis Drake, or one of Sir Walter Raleigh’s men, Thomas Harriot. In the 1840s, there was a terrible potato blight across Europe which killed most of the crops. Ireland suffered catastrophically as a consequence and 40% of the population, who relied on the crop, starved to death.

Until the 8th century, Irish and British people did not grow fruit & veg. To supplement their diet of meat and fish, they foraged wild leaves, roots, berries and fungi. When veg was introduced to Ireland, the main things they grew were carrots, parsnips, celery, turnips, cabbages and onions. More exotic vegetables and fruit such as pears, plums and peaches were introduced to Ireland much later by English colonists from the 17th century.

Famous gardeners from the past include Percy Thrower, who died in 1988, and Gertrude Jekyll, a garden designer, artist and writer who was born in 1843. Gertrude created over 400 gardens in the United Kingdom, Europe and the United States. Other famous names that the children could investigate include Capability Brown or, more recently, Charlie Dimmock and Alan Titchmarsh, and Arthur Shackleton and Diarmuid Gavin in Ireland.

main activity

Ask the children to go online and research the following fruit & veg. Then, using the timeline on activity sheet 5, ask them to mark when they were introduced into the UK and Ireland:

pea  bean
carrot  onion
apple  pear
tomato  peach

See if the children can find out what people ate in Ireland and Britain in the 1500s and the importance of fruit & veg in their diets.
Ask the children to investigate how people used to keep their food cool before fridges were invented.

**lower range activities (UK) or junior infants to 2nd class (Ireland)**

- Print out pictures of a cucumber, an onion, a leek, a cabbage, an apple and a plum. Ask the children to make a collage using the pictures and write the dates of when they were introduced into Ireland and Britain next to them.
- With the children, research and discuss in which seasons different fruit & veg is harvested – e.g., brussels sprouts in winter, blackberries in autumn, cucumbers in summer and asparagus in spring.

**upper range activities (UK) or 3rd class to 6th class (Ireland)**

- Encourage the children to investigate the introduction of the potato into the UK and the Great Famine in Ireland in the 1840s.
- Ask the children to design leaflets on three or four different types of fruit or veg which have been around for thousands of years. When were they introduced into Ireland and Britain? How were they used in the beginning and how are they used now?

**extra ideas**

- Get the children to investigate some modern gardeners such as Monty Don, Diarmuid Gavin, Chris Beardshaw and Pippa Greenwood. The children could also look up famous fruit & veg gardens in both the UK and Ireland.
- See if the children can find out more about when exotic fruits were introduced into the UK and Ireland, like bananas (in 1633).
the history of fruit and veg

Cut out the fun facts below and put them in the correct order on a timeline (starting with the one that happened first).

- Lentils were eaten thousands of years ago in prehistoric times.
- The Greek was born in 1843.
- The Romans were grown by the Greeks and Romans.
- Pickled beetroot was very popular in the UK and Ireland during the 18th century.
- There was a potato blight in Europe in the 1840s.
- The potato was introduced towards the end of the 19th century.

name

class
Lesson Plan 6 - Upcycled Pea Fun

It will take: 45 minutes

Curriculum links: English, maths, science, geography, art, SPHE (social, personal, health education)

While some veg is best sown directly in the soil (e.g., potatoes, onions, and garlic), others do better starting off in a small pot and then moving to a bigger container or veg patch. Starting the seedlings off in the warmth with no threat from frost, cold or pests means they’re more likely to survive when they move outside. Don’t leave seedlings in small pots for long though, as potting compost only has enough nutrients to last four to eight weeks. The plant’s root system will also grow too big for the pot.

You’ll start your peas in the big grow cups, then transplant them into larger containers after a few weeks (exactly how long depends on how much heat and light they get in the classroom). When they are big enough they can be planted outside.

Main activity

For this activity, children will need to bring in containers to upcycle into new pots for their seedlings. The new containers must be at least double the size of the big grow cup.

The recycling bin is a great place to find useful pots. The plastic trays that shops use for fruit & veg are brilliant for planting in, and some of them come with a plastic lid which makes a perfect mini-greenhouse. Encourage children to keep hold of any pots they would usually throw away at home. Then rinse them out and reuse them for planting in the classroom.

Washed milk cartons and mineral water bottles are also good. You’ll usually need to pierce some drainage holes in the bottom of the container so it doesn’t get waterlogged.

You will need

• a selection of recycled/upcycled containers that could be used for potting, e.g., an old wellie or boot, a milk carton or water bottle, a deep plastic veg or fruit tray, a large tin, a plastic tray, or an old drainpipe
• good quality potting compost
• scissors for cutting, and something sharp to make drainage holes (e.g., a compass or needle).

Safety first. Be very careful when handling potentially dangerous items such as scissors or needles. You should complete these tasks for younger children.
lower range activities (UK) or junior infants to 2nd class (Ireland)

- Get the students to group different materials by properties such as size and whether they are waterproof. Discuss what makes different materials suitable/unsuitable by seeing which absorb water and which don’t. Ask them why paper is not suitable and choose the right containers together as a class. Talk about and draw up a plan for potting.

- Make a simple plant pot with the children. Add drainage holes to the container (this should be carried out by the teacher/older students) and talk about why this is needed. Put some soil in the bottom of the container.

- Take the seedling out of the big grow cup by holding the seedling by the stem with one hand, turning the cup upside down with the other and gently removing the seedling and compost from the cup. Have a look at the roots, but do not touch them. Are they visible? How many are there? Are they curled around the base of the cup? Place your plant in the new container, fill around the seedling with potting compost, pat it down gently and water it. Find a stick that the pea seedling can grow up. Get the children to use activity sheet 6 to map out the exercise.

upper range activities (UK) or 3rd class to 6th class (Ireland)

- Get the children to look at different materials that could be used to plant their peas in. Pick the right material (waterproof, larger than the big grow cup) and draw a plan of your new pot. List what is needed and describe the step-by-step procedure to make a simple plant pot.

- Pick the right container, add drainage holes and talk about why this is needed. Decorate your container using paint and fabrics and put some soil in the bottom. Take the seedling out of the big grow cup by holding the stem with one hand, turning the cup upside down, and gently removing the seedling and compost from the cup. Have a look at the roots but do not touch them. Are they visible? How many are there? Are they curled around the base of the cup?

extra ideas

- Create plant labels with the class using lollipop sticks or plastic milk cartons cut into strips (be careful as edges can be sharp).

- Get the children to place a toilet roll insert on a tray or flat surface, fill it with compost and sow either pea, carrot and other veg seeds in it. When the veg plants get bigger, the tube can be put into the ground and the cardboard will eventually rot away.

- Old CDs tied to string can be used to scare birds away from crops in the school vegetable garden.

- Make lots of little holes in the lid of a water bottle with a sharp object (with the lid on) and use it as a handy watering can.
seeds on the move

In this activity we are going to describe the process of transplanting a seedling.

Draw a picture in the box below of the pot or container you are going to transplant your Big Grow seeds into, and answer the following questions:

• What was it used for before now?
• Is it bigger or smaller than the Big Grow cup?
• What material is it made of?
• Is it waterproof?
• Can you make holes in it for drainage?

Describe the instructions for transplanting a seedling in to a new container:

name

class
List or draw the materials you need to transplant a seedling into a new container.
reci-peas: pea hummus

difficulty level: one

This easy pea-sy recipe is quick, tasty and delicious. Serve with some fresh sourdough bread or rye crackers for a tasty snack.

what you’ll need

240g cooked chickpeas (drained from can)
200g cooked peas (from your little garden or frozen)
1 tbsp lemon juice
1 garlic clove, crushed
water
salt and pepper to taste

how to make it

1. Bring a large pot of well-salted water to a rolling boil before adding your peas and bring the pot down to a steady simmer.

2. Simmer for eight to ten minutes. A tell-tale sign that your peas are close to being ready to munch is when they turn from pale to bright green, so pop a couple in your mouth to make sure. Make sure they aren’t too hot before tasting them.

3. Next, put the chickpeas, peas, lemon juice and garlic in a food processor or blender and blitz them until they are mixed together. Add some water to make the mixture a little runnier and to your desired consistency.

4. Serve straight away or store it in a lidded jar or container in the fridge for up to three days.
reci-peas: pea and cress soup

difficulty level: two

This fresh, smooth soup is a yummy treat for hard working growers.

what you’ll need

1 tsp olive oil
4 spring onions (sliced)
1 garlic (crushed)
200g fresh cress (from your little garden)
200g fresh peas (from your little garden or frozen)
sprig of mint
500ml of vegetable stock
1 tbsp milk or dairy free alternative (try innocent dairy free oat)

how to make it

1. Heat the oil in a large pan, add the spring onion and garlic and sauté over a medium heat for five minutes until pale golden.

2. Stir in the cress (keep a few sprigs to serve), peas, mint and stock.

3. Cover and simmer for a further five minutes or until the watercress is wilted.

4. Blitz with a stick blender.

5. Add the milk (or innocent dairy free oat) and seasoning to taste.

6. Top with the leftover cress and serve to friends and family.
**reci-peas: spiced tomato ketchup**

**difficulty level: three**

This recipe is from the head chef of GIY’s restaurant GROW HQ in Waterford City, Ireland. Making your own tomato sauce is a great way to use up your tomato crop and it can be stored for up to six months in air tight jars. It tastes great with homemade burgers.

**what you’ll need**

- 2kg of ripe tomatoes
- 150g gold granulated sugar
- 200ml red wine vinegar
- ½tsp sea salt
- 1 tsp cumin seeds
- 1 tsp coriander seeds
- ½ tsp cayenne pepper
- 1 small bunch of fresh coriander

**how to make it**

1. Toast the spices in a dry small saucepan on a low heat for two minutes.

2. Crush the spices in a pestle & mortar.

3. Sprinkle the crushed spices in the bottom of a large roasting tray.

4. Cut the tomatoes in half and put them in the roasting tray flesh facing up.

5. Sprinkle with the sea salt and sugar and drizzle with red wine vinegar.

6. Bake at 120°C for two and a half to three hours.

7. Blend for a minute with the chopped fresh coriander. Don’t blend for too long or the seeds break down and it will become bitter.