

Onions and garlic









- ▶ It's well known that when you cut onions, they make you cry. This is because the knife slices through the plant's cells, releasing sulphur compounds that react with the air and irritate your eyes.
- ♣ Garlic has been grown for millennia. It's believed that the ancient Egyptians fed a clove of garlic to each of their slaves as they built the pyramids, to keep them healthy.
- ★ The gigantic "elephant" garlic has cloves the size of large conkers but, despite its name, it's actually more closely related to leeks.

Grow: Are they a fruit or vegetable?

Onions and garlic are vegetables from the same plant family, called Allium. We mostly eat the bulbs, although the leaves of some species, such as chives and wild garlic, are also tasty.

How do they grow?

The Allium plant family is often grown by planting small bulbs, rather than by sowing the plant from seed – the bulb then swells and sprouts green leaves. Wild garlic tends to grow of its own accord in wild, damp and shady spots.

Should I grow them?

Yes, but choose carefully. Onions and garlic are seldom eaten raw, so grow them only if you can use them for cooking. On the school plot, shallots, chives and spring onions are quicker and easier to grow. Chives and spring onions are also more versatile because they can be eaten raw. All can be grown in pots and containers.

When are they ready?

Onions and garlic are ready when the leaves turn yellow. Plant garlic in winter ready for harvest in late summer or early autumn. Onions tend to be planted later in spring.

Shop: What should you look for?

Look for heads of garlic with fat, juicy cloves. Both onions and garlic should be firm to touch, rather than soft, withered or squashy.

How should you store them?

Store in a cool, dark place. Spring onions and chives are best kept in the bottom of the fridge.

Eat: How can you eat it?

Onions are often fried or roasted. Red onions are milder and sweeter, so are good for eating raw in salsas and salads. Spring onions can be grilled or barbecued whole or used in salads, while chives are typically added at the end of cooking. With garlic, we eat the bulb although the leaves or "scapes" are also delicious. New season or "wet" garlic is milder in flavour. You can also roast garlic as a bulb or broken into cloves, which makes it sweet and delicious. Onions and garlic are essential ingredients in cooking.

Why is it good for you?

Onions are a source of vitamin B6, which helps our nervous system to work properly so we can touch, taste, see and smell. Garlic is a great source of a mineral called potassium. Potassium helps to keep our muscles working properly so we can move around.

Key info for teachers



Key facts

- Although we grow many varieties of garlic and onion in the UK, China is also a major producer.
- ★ There is a famous garlic farm on the Isle of Wight. Check their website for lots of useful information: www.thegarlicfarm. co.uk
- Yellow onions are the most versatile variety for cooking, white onions are sweeter and milder but harder to find and red onions are the best type for eating raw. Shallots are smaller in size and have a more delicate flavour.

Curriculum links

Science/History/ Literacy

Invisible writing

Onion juice can be used to make invisible ink. You can find methods online. Make the ink and discuss the use of invisible ink in history (for example, used by spies in World War II). Get students to use the ink to create a piece of secret writing. You can link this work to the scientific concept of reversible and irreversible changes.

Music

The onion song

The Onion Song was a hit for singers Marvin Gaye and Tammi Terrell. Play the song and study the lyrics. What do the children think they mean? Why have they chosen the onion? Discuss why onions make you cry. You could also learn and perform the song.

Maths

Fractions

Use heads of garlic for work on fractions, opening them up to reveal the cloves within. Ask questions, such as: what fraction of the whole is one clove? To extend, calculate the mean, median and mode number of cloves in each bulb.

Tips for teachers



- * Onions and garlic are both a bit tricky to prepare. Make sure you've removed the outer papery skin as well as the shiny membrane of the onion before slicing. Take care and review the safe techniques.
- * An easy trick for quickly peeling garlic is to lay it on a chopping board and squash firmly with the flat side of your chef's knife the skin should now be loose and easily peel away.



Quick pickled onions

Serves 4



These quick pickled onions use the same elements as traditional pickling (vinegar, sugar and salt), but because the onions are finely sliced you can speed the process right up.

Ingredients

- 1 red onion or 8 small shallots
- ½ teaspoon sea
- 1 teaspoon golden caster sugar
- 4 tablespoons white wine vinegar
- optional: 5 sprigs of fresh mint or dill

Equipment list 3

- Chopping board
- __ Knife
- Mixing bowl
- Measuring spoons
- spoons
- __ Sieve



Here's how to make it 5

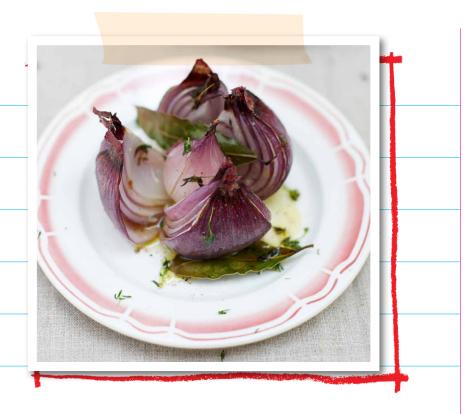
- Peel the onion or shallots and cut in half.
- Finely slice on a chopping board, then place in a mixing bowl.
- Add the salt, sugar and white wine vinegar this looks like a lot of salt and vinegar, but this makes the pickling liquid and you pour most of it away.
- Pick the herb leaves from the stalks, if using, then finely chop and add them to the onions.
- Using your hands, scrunch the onions and herbs together for a couple of minutes, then leave aside to sit for 10 minutes, mixing occasionally.
- When the time's up, drain the onions over the sink into a sieve then serve delicious in a cheese sandwich or served with a roast chicken salad.



For nutritional information ask your teacher.

Simple whole baked red onions

Serves 4





We only seem to get certain varieties of onion in our supermarkets, but if you ever get down to a farmers' market you'll see that they come in all different shapes and sizes. This is delicious served as part of a main meal with grilled meat or fish, or perfectly lovely served simply with a fresh green salad.

Ingredients

4 large red onions
4 fresh bay leaves

 \square ½ a bunch of fresh thyme

1 small knob unsalted butter

1 tablespoon olive oil

sea salt and freshly ground black pepper

optional: 20g Cheddar cheese



Onions are the most widely eaten vegetable in the world, and are often used chopped or sliced in lots of different dishes, such as soups, stews and risottos. They're rarely eaten as the hero of a dish, but roasted whole, like in this recipe, they're super sweet and deserve to be celebrated in their own right. They're also delicious cut into wedges and baked with a good splash of balsamic vinegar to make them dark and sticky.





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Here's how to make it?

- 1 Preheat the oven to 200°C/400°F/gas 6.
- Peel the onions whole, leaving the roots and tops attached.
- On a chopping board, carefully trim away most of the root from each onion to give them a flat base.
- Cut crosses into the tops of the onions, roughly three-quarters of the way down, keeping the base intact.
- 5 Sit the onions on their flat bases in a 20cm x 25cm roasting tin.
- Push a bay leaf and a few sprigs of thyme into the middle of each onion.
- Place one-quarter of the butter on top of each onion, then sprinkle with a tiny pinch of salt and pepper.
- Drizzle over 1 tablespoon olive oil and then cover the roasting tin with a layer of tin foil, making sure it's secured tightly around the edges but not squashing the tops of the onions.
- 9 Place the tray in the hot oven and roast for around 30 minutes, or until cooked through.
- When the time's up, use oven gloves to remove the tray from the oven and carefully remove the tin foil watch out for the steam!
- 11 Make sure the onions are standing up properly, then use oven gloves to place back in the oven.
- 12 Bake for a further 30 minutes, or until the onions are starting to crisp up on the outside, then remove from the oven.
- 13 Break the cheese into 4 pieces (if using), and pop a piece on top of each onion.
- 14 Return to the oven and cook for a further 5 minutes, or until the cheese has melted.
- 15 Use a fish slice to carefully transfer the onions to a serving dish, then tuck in.

For nutritional information ask

your teacher.

Garlic and rosemary focaccia

Makes 18 pieces



Equipment Weighing scales Measuring spoons 2 large mixing bowls Measuring jug __ Fork L Tea towel Mixing bowl Baking tray (roughly 20cm x 30cm) Oven gloves Bread knife _ Chopping board



You can easily turn this into a sweet focaccia instead - try ripping over some cherries and sprinkling with vanilla sugar. Delicious!



This focaccia is flavoured with good old garlic and rosemary, but you could try combos like cherry tomatoes and basil or three cheese. Just keep it light and you'll be onto a winner.

Ingredients

for the dough:

- 400g strong white bread flour, plus extra for dusting
- 100g fine ground semolina flour or strong white bread flour
- sea salt and freshly ground black pepper
- 1 x 7g sachet dried yeast
- 2 ½ tablespoon golden caster sugar
- olive oil

for the topping:

- 1 bulb garlic
- a few sprigs of fresh rosemary
- 2 tablespoons extra virgin olive oil









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Here's how to make it?

- Place the flours and ½ tablespoon of sea salt into a large mixing bowl or onto a clean work surface, and make a well in the middle.
- Add 300ml lukewarm water to a measuring jug, then add the yeast and sugar and mix with a fork to activate the yeast.
- Leave for a few minutes and, when it starts to foam, slowly pour it into the well, mixing with a fork as you go.
- As soon as all the ingredients come together, which may take a minute or so, dust a clean work surface with flour and knead vigorously for around 5 minutes, or until you have a smooth, springy, soft dough.
- 5 Lightly oil a large clean mixing bowl with some olive oil and add the dough.
- Dust with a little extra flour, cover with a clean tea towel and leave to prove in a warm place for 30 minutes, or until doubled in size.
- While the dough is rising, preheat the oven to 220°C/425°F/gas 7. Meanwhile...
- Push down with the palm of your hand to break the garlic bulb apart, discarding the white skin, leaving the purple skins on the cloves. Squash each clove with the palm of your hand, then add to a mixing bowl.
- Pick the rosemary leaves into the bowl, discarding the stalks.
- Drizzle the garlic cloves and rosemary with 1 tablespoon of extra virgin olive oil, season with a tiny pinch of salt and pepper, then mix and scrunch them together with your fingers.
- As soon as the dough has risen, pound it with your fists, then place on a 20cm x 30cm baking tray and spread it out to cover the tray.
- 12 Push down roughly on top of the dough like a piano to make lots of rough dips and wells these little indentations give you the classic focaccia shape.
- 13 Scatter the garlic and rosemary evenly over the surface, pushing them into the dimples.

- 14 Finish by drizzling over 1 tablespoon of extra virgin olive oil and adding a tiny sprinkling of sea salt.
- 15 Cover with a clean tea towel and leave to prove and rise for a further 20 minutes.
- 16 Use oven gloves to place in the hot oven, then bake for around 20 minutes, or until golden on top and soft in the middle.
- 17 Use a bread knife to cut it into chunks on a chopping board, then tuck in.

Your notes...

For nutritional

information ask

your teacher.