

Teaching safe knife skills

The Stephanie Alexander Kitchen Garden Foundation's approach to using knives is to encourage educators to teach students how to safely use the tools they would normally find at home, at a pace they show themselves ready for. This means we encourage the use of full-size cook's knives for children who are able and ready to handle them.

Generally, many children will be ready to be introduced to adult-sized cook's knives from around eight years of age. However, we also know that students learn at different paces and have different motor skills, and so this resource suggests some safe knife alternatives.

Regardless of age, it's never too early to start establishing safety and good technique for how children use their tools for cutting, chopping and slicing. But first, educators must feel confident demonstrating and teaching knife skills to their students, and facilitating safe knife handling.

This resource aims to give educators the confidence to teach safe knife skills to all students, from those in the early years through to secondary school. It includes plenty of advice and information on safety, types of knives, knife techniques and practising knife skills.

Table of contents

Knife safety – page 2

Setting up a safe work station – page 3

All about knives – page 4

Types of knives – page 4

Parts of a knife – page 5

How to hold a knife – page 6

Purchasing knives – page 7

Sharpening knives – page 7

Basic knife techniques – page 8

The rock-and-chop – page 8

The bridge – page 9

The bear's claw – page 10

Basic knife cuts – page 11

Top tips for teaching safe knife skills – page 13

Recommended recipes for teaching safe knife skills – page 14

Knife licence – page 14

Knife safety

Incorporate kitchen and knife safety into your very first kitchen classes. When establishing rules, involve students to encourage a sense of ownership.

When introducing knives in a kitchen class, discuss the knives, show students what they look like and their parts, and emphasise the safety rules before allowing students to handle them.

Show students where knives are stored, how they will be dispensed and how they will be washed. Discuss who will be responsible.

Here are some basic knife safety rules to introduce to students:

- Only use a knife if you have been asked to or if you have asked permission.
- Always hold a knife by the handle, never by the blade.
- Never point a knife towards a person, including yourself.
- Always use a chopping board.
- Grip the knife handle firmly with your hand.
- Form your other hand into a bear's claw. Keep your fingernails out of view; don't forget to tuck in your thumb!
- Use your knuckles as a guide.
- NEVER put a knife into a sink of water.
- Always carry a knife with your arm by your side and the knife's blade pointing towards the floor.

These guidelines are available on our [knife rules poster](#) – download and print a copy for display in your kitchen space.

Go over knife safety rules regularly to make sure everyone – including volunteers and visitors – understands and abides by them.



Knife storage

Think about where to store your knives, for example in a block, a shallow tub with a lid, or a locked toolbox. Many educators keep knives in a locked cupboard so they can supervise and oversee their use.



Setting up a safe work station

When using knives, it is especially important that students are standing comfortably, at a good height to their work surface and able to see what they are doing.

Ideally, tables or benches should be at waist height when the student is standing, so you may need to consider using step stools. If students will be converting a table from another area into a work station, be sure to clean it before use.

Here are some top tips for setting up a safe work station:

- Use good-quality (thick and steady) chopping boards. Avoid flexible plastic chopping boards – they tend to buckle after a lot of use.
- Place a damp tea towel underneath the chopping board to prevent it from slipping. You can also use a damp cloth, or a grip mat cut to the size of the chopping board.
- Make sure the chopping board is within easy reach (i.e. not too far away from the edge of the bench or table).
- Place the knife at the top of the board, and with the blade facing away, when not in use.
- Ensure there is only one student working at each chopping board.
- Remember to place a compost bin close by to collect any scraps.
- Set bowls or containers out for the chopped ingredients.



All about knives

Types of knives

We recommend stocking your kitchen with several types of knives. Knives come in a variety of types and sizes. The size of a knife is measured based on the length of the blade. Below is an overview of some basic types of knives.

Cook's knife

This is a versatile knife that can be used for slicing, chopping and dicing. The curved blade allows for 'rocking', making this knife generally easy to use. Knife sizes range from 14 cm to 20 cm. For young students, use a slightly smaller, lighter cook's knife, for example a 14 cm knife rather than a standard 20 cm knife.

Paring knife

Paring knives are small and lightweight. They are used for delicate work that requires greater control, such as peeling or deseeding. A 6 cm knife is a good size for this type of work. Because a cook's knife is often too big for small hands, young children can use paring knives for chopping and slicing.

Bread knife

This knife is designed for cutting bread. Its blade is serrated and long to allow for straight, precise cutting. One of these knives per kitchen is usually enough.



Other cutting tools

- **Butter knives:** Butter knives can be useful for young children when cutting soft fruit or vegetables, and for doughs such as gnocchi.
- **Chop boxes:** These are clear heavy-duty plastic boxes with a cutter in the lid. Slices of vegetables can be placed on the box, and the lid is pushed down with both hands. As well as being safer for young children, an advantage of a chop box is that cut vegetable pieces will be small enough to cook evenly and quickly.
- **Garlic crusher:** You can use this instead of a knife to crush and mince garlic cloves.
- **Grater:** There are many different types of graters – a zester for citrus peel; a fine grater for cheeses, ginger and garlic; and a larger grater often used for vegetables. These can be used by students prior to handling knives, but be careful, as graters require lots of hand-eye coordination and can be difficult to use.
- **Mezzaluna:** This is a knife consisting of a curved blade with handles on each end. The blade is rocked back and forth to chop the ingredients. Mezzalunas are typically used for mincing herbs or garlic.
- **Scissors:** Scissors are a great introductory tool in the kitchen, as children can use them for cutting finely without having to master the use of knives. A good pair of kitchen-only scissors is great for chopping herbs and other ingredients.
- **Spiraliser:** Use this tool to cut raw vegetables into noodles, ribbons or slices.
- **Vegetable peeler:** Peelers of different widths can be used to remove the peel or outer skin of fruit or vegetables. They can also be good for cutting vegetables or fruit into ribbons or slices.



Knives for early learners

While we recommend using adult-sized equipment whenever possible, a good-quality child-friendly knife may be better suited to small hands. Look for a knife that's durable, solid and easy to hold, and that's sharp enough not to slip when it's pressed down on.



Parts of a knife

The following diagram shows the main parts of a knife.



How to hold a knife

Pick up the knife by the handle. Hold the handle comfortably, not too loose and not too tight. Move your thumb and index finger up to pinch the handle just before it meets the blade to add a little extra stability and control.

Your other hand will play a supporting role. You will use it to support or guide the knife, depending on the knife technique you are using.



Purchasing knives

It is better to purchase quality equipment rather than to purchase lightweight or cheap cooking equipment that will break easily. Using standard equipment from the start saves time and money, and is also important in teaching children real life skills.

Knives are a long-term investment, so getting your knives from a reputable provider will pay off in the long run. Good-quality knives will last longer and, as a safety consideration, wear better.

Here are some things to look for in a knife:

- The knife needs good weight and balance; a light knife with a flimsy blade will lead to less control when cutting.
- The blade should ideally be stainless steel, as this is easy to sharpen and will last a long time.
- Avoid knives sold with the claim that they don't need to be sharpened; these knives don't tend to last very long.
- Look for quality, comfort and fit, rather than focusing on a brand.
- Choose a knife with a comfortable handle, for ease of use.

Sharpening knives

Blunt knives slip, so it's safer to keep knives sharp. Sharpening tools include sharpening stones, sharpening steels and pull-through sharpening devices.

A knife steel should be used for maintenance only, not sharpening. Pull-through devices, although easy to use, assume a 'one-size-fits-all' approach, and not all knife blades are the same, so this may damage your knives.

Alternatively, you could take your knives to a professional knife sharpener. These services are often advertised online or at specialist knife stores, or you could try your local butcher.



Basic knife techniques

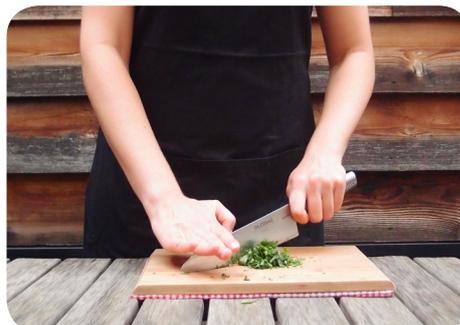
When teaching safe knife skills, there are some basic techniques that can be used to cut and chop ingredients in different ways. Below is an overview of these basic techniques, which are all suitable when using a cook's knife.

The rock-and-chop

The rock-and-chop is a suitable technique to begin with, as no fingers are near the blade. This technique is great for both rough and fine chopping. The longer you chop, the finer the outcome. It is ideal for chopping herbs as well as mincing garlic, chillies and onion.

Here's how to rock-and-chop:

- Hold the handle of the knife firmly in one hand.
- Place the palm of your other hand on the spine of the knife.
- Place the tip of the knife on the chopping board and start rocking the knife back and forth on the ingredients, with the tip never leaving the chopping board.
- Every now and then, use the blade of the knife to sweep the ingredients into a pile and start chopping again.
- Scrape any produce off the knife blade by dragging the flat of the blade on the edge of your chopping board. Never use your finger!

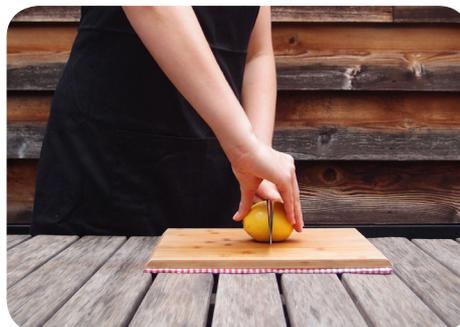
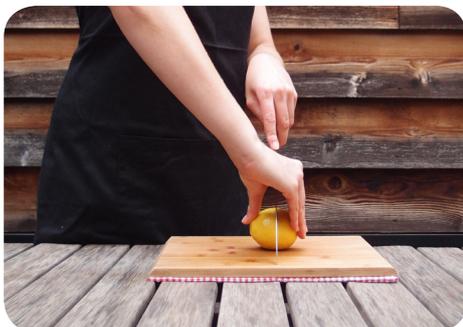


The bridge

This technique is used to cut round or wobbly vegetables or fruit to create a safer flat surface. This is perfect for onion, beetroot, potatoes, apples, oranges, lemons, pears and apples.

Here's how to use the bridge technique to cut a lemon in half:

- Hold the handle of the knife firmly in one hand.
- With your other hand, hold the lemon with your fingers on one side and thumb on the other, forming a bridge with your hand.
- The knife goes underneath the bridge shape created by your hand and over the top of the lemon.
- Check that your fingers are out of the way and then place the tip of the knife on the board.
- The tip of the knife remains on the board and the blade is brought down to cut the lemon in half.
- Place the cut surface face down on the chopping board. You have now created a safe base that will not roll around when you are cutting.



The bear's claw

This technique is used for chopping, slicing, dicing and julienning. It takes a bit of practise, but is a safe way to chop ingredients as your thumb and fingertips are tucked in, out of the way.

In this grip, your knuckles will become the guide for the placement of the blade of the knife, keeping your fingers and thumb protected. Here's how to use the bear's claw on a zucchini half:

- Hold the handle of the knife firmly with one hand.
- Tuck in the fingers of your other hand (the bear's claw).
- Use this bear's claw grip to securely hold the zucchini half. Now tuck your thumb out of the way, behind your fingers.
- Use the flat surface of your knuckles to guide the placement of the knife blade.
- Carefully place the tip of the knife down on the chopping board and start to cut the first slice. Keep the tip of the knife to the board and use a rocking action. The tip of your knife should never leave the board, and don't bring the blade higher than your knuckles.
- Move your fingers back with each cut, so your knuckles continue to guide the knife blade.
- Take your time and line up your knife, making sure to keep your fingers tucked back before each cut.

Always make sure your thumb stays tucked behind your fingers – it tends to move to the front and get in the way!

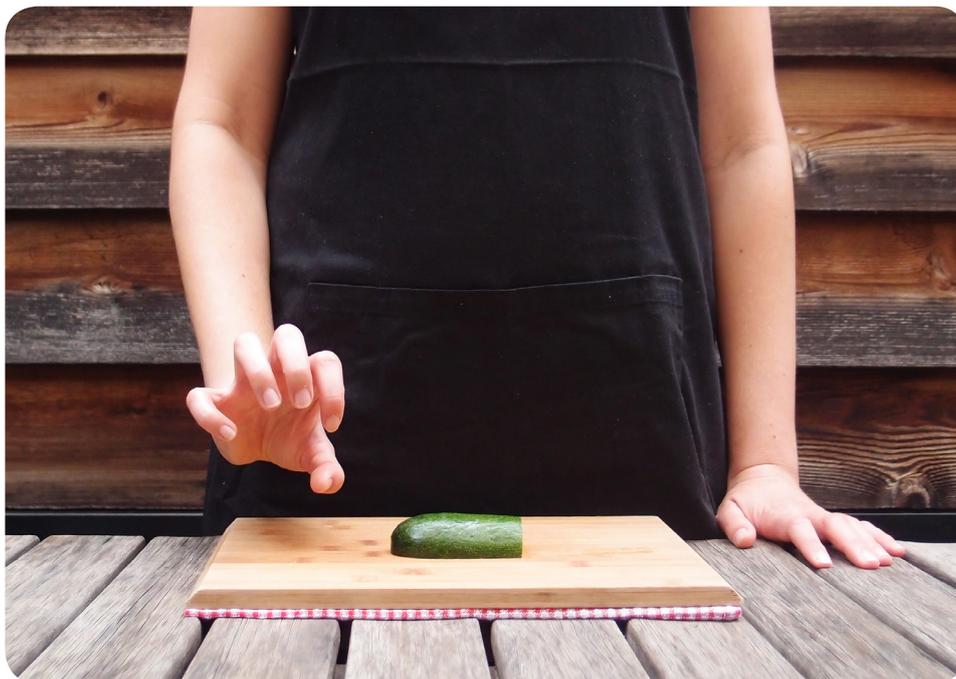


Chiffonade

This technique is an extension of the bear's claw. It is an excellent way to finely slice leafy greens like silverbeet, kale and spinach as well as herbs like mint and basil.

Here's how to chiffonade:

- Stack four or five leaves in a pile. Roll up the leaves into a sausage shape and place on the chopping board.
- Hold the handle of the knife with one hand.
- Following the same instructions as in the bear's claw technique, slice as finely as you can to create thin ribbons.



Basic knife cuts

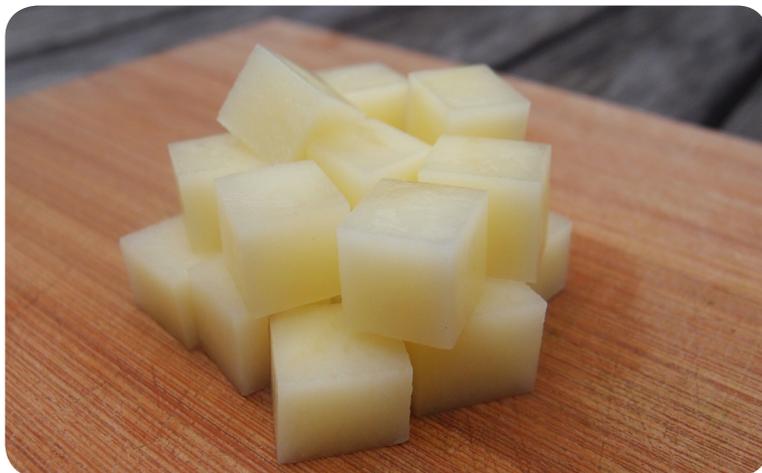
Roughly chop: Cut ingredients into pieces.



Finely chop: Cut ingredients into small pieces.



Dice: Cut ingredients into cubes.



How to dice an onion

Dicing an onion is one of the most common preparation steps in the kitchen. It can be a tricky technique to master but is a great one to learn as it combines several basic knife grips.

In this video, Stephanie Alexander teaches you the techniques for slicing and dicing an onion:

<https://www.youtube.com/watch?v=bl0KImYZXjw>

Mince: Chop ingredients very finely, usually using the rock-and-chop technique.



Slice: Cut ingredients into thin pieces.



Julienne: Cut ingredients into long, thin strips, like matchsticks.



Top tips for teaching safe knife skills

Students in a kitchen garden program learn to use a cook’s knife safely and skilfully – and educators use a variety of methods to help students achieve this over time. Below are some top tips for teaching knife skills.

- Be sure to cover, and review, knife safety often in kitchen classes.
- Reinforce the techniques and safe knife grips by using a variety of recipes that call for ingredients to be cut in different shapes and sizes.
- One-on-one supervision is essential when teaching a young child to handle a knife.
- Primary and secondary students can be taught in small groups – but make sure there are enough adults at hand to supervise each person learning to use a knife.
- Encourage the child to take it slow when establishing technique. Watch that the tip of the knife doesn’t leave the board, and keep an eye open for children opting for speed over technique.
- Not all students need to work with knives at all times – splitting students into groups, where some groups won’t use knives at all or only one child in the group will be using a knife – will take the pressure off.
- Always demonstrate any new techniques before the students attempt it. Then supervise the students as they practise the technique to make sure they have understood what is required.
- Incorporate the various techniques regularly into the children’s cooking classes, so they can build confidence and competence through repetition.
- Start with soft fruit or vegetables that are easy to cut (e.g. cucumbers, pears, watermelon, zucchini). Chopping cooked vegetables can also be a good starting point for beginners.
- Produce that can roll around on a work surface is not ideal for beginners. You can get around this by chopping vegetables and fruit in half ahead of time so that students can lay them flat to have a stable surface to work on.

Patience, positive reinforcement and repeat sessions are key.

Children with no experience of knives will need time and attention before they begin to feel comfortable with knives. Some children may be frustrated initially at the attention required to get it right. Give students time, encouragement and plenty of support.

There is a great deal of responsibility and trust given to students when using knives, and they take this very seriously.



Knife skills for early learners

Build children’s coordination, spatial awareness and fine motor skills before introducing knives.

Show children how to rip and tear leafy greens and herbs, how to use scissors to cut food scraps for the compost or worm farm, or how to use tongs to serve food.

Using peelers is another great way to encourage fine motor skills and coordination in young children. Over time, children can build up to using butter knives to cut dough, soft fruits and cooked vegetables.



Recommended recipes for teaching safe knife skills

Below are some recipes that help students practise knife skills. We have also included some recipes that don't require children to use knives at all (with minimal preparation by educators), but are ideal for helping children to develop essential skills before they start handling knives.

Recipes that don't require knives	Recipes for introducing knives	Recipes for practising knife skills
Aioli	Basic Gnocchi	Braised Capsicum, Onion & Tomato with Bay Leaves & Thyme
Beetroot Raita	Cucumber, Lime & Mint Agua Fresca	Green Spicy Coleslaw
Herb Salad	Cucumber Relish	Mie Goreng
Hummus	Salsa Verde	Ratatouille
Indian Flatbread	Spinach Wontons	Triple Citrus Marmalade
Orecchiette	Tabbouleh	Vegetable Gyoza
Pumpkin and Honey Bread	Watermelon Salad	Vietnamese Rice Paper Rolls with Dipping Sauce



Your first knife skills class

Based on the skill level of your students, choose a recipe from our table of recommended recipes. Look at the different knife techniques used in the recipe and clearly demonstrate these at the start of the lesson. Reinforce knife safety and expected behaviours when using knives.

To ensure there is enough adult supervision, you may like to have one group using knives while the other groups cook dishes that don't require knives. For example: group 1 makes hummus, group 2 makes Indian flatbread and group 3 makes tabbouleh, learning all about dicing and how to rock-and-chop.

Note that volunteers may need to cut produce in half, or into manageable pieces, to ensure ingredients don't roll around.

Knife licence

Once students have mastered some basic techniques for using a knife and have demonstrated that they can carry a knife safely, you can give them a 'knife licence'!

Download the [knife licence template](#), print it, cut out individual licences, and write the recipient's name in each one.

Students take a great deal of pride in receiving their knife licence. You may like to make an occasion of it by giving them out at assembly or at an end-of-term party.

