

**AFTER STUDYING THIS
CHAPTER, YOU WILL BE
ABLE TO:**

- ▶ care for knives properly
- ▶ use knives properly
- ▶ cut foods into a variety of classic shapes

Every professional must become skilled in the use of certain tools. The professional chef is no exception. One of the most important tools the student chef must master is the knife. Knife skills are critical to a chef's success because the knife is the most commonly used tool in the kitchen. Every chef spends countless hours slicing, dicing, mincing and chopping. Learning to perform these tasks safely and efficiently is an essential part of a student's training.

At first, professional knives may feel large and awkward and the techniques discussed in this chapter may not seem all that efficient. But as students become familiar with knives and practice their knife skills, using knives correctly will become second nature.

Knives are identified in Chapter 5, Tools and Equipment. Here we show how they are used to cut vegetables. The technique presented, however, can be used for almost any food that holds its shape when cut. Knife skills for butchering and fabricating meat, poultry, fish and shellfish are discussed in Chapter 17, Principles of Meat Cookery, through Chapter 20, Fish and Shellfish.

A note about language: Many of the classic cuts are known by their French names: *julienne*, for example. Although these are nouns and entered the English language as nouns (for example, a julienne of carrot), they are also used as verbs (julienne a carrot) and adjectives (julienned carrots).

▶ USING YOUR KNIFE SAFELY

The first rule of knife safety is to think about what you are doing. Other rules of knife safety are as follows:

- 1 Use the correct knife for the task at hand.
- 2 Always cut away from yourself.
- 3 Always cut on a cutting board. Do not cut on glass, marble or metal.
- 4 Place a damp towel underneath the cutting board to keep it from sliding as you cut.
- 5 Keep knives sharp; a dull knife is more dangerous than a sharp one.
- 6 When carrying a knife, hold it point down, parallel and close to your body as you walk.
- 7 A falling knife has no handle. Do not attempt to catch a falling knife; back and allow it to fall.
- 8 Never leave a knife in a sink of water; anyone reaching into the sink could be injured or the knife could be dented by pots or other utensils.

CARING FOR YOUR KNIFE

KNIFE SHARPENING

A sharpening stone called a **whetstone** is used to put an edge on a dull knife blade. To use a whetstone, place the heel of the blade against the whetstone at a 20-degree angle. Keeping that angle, press down on the blade while pushing away from you in one long arc, as if to slice off a thin piece of the stone. The entire length of the blade should come in contact with the stone during each sweep. Repeat the procedure on both sides of the blade until sufficiently sharp. With a triple-faced stone, such as that shown here, you progress from the coarsest to the finest surface. Any whetstone can be moistened with either water or mineral oil, but not both. Do not use vegetable oil on a whetstone because it will soon become rancid and gummy.

A **steel** does not sharpen a knife. Rather, it is used to hone or straighten the blade immediately after and between sharpenings. To use a steel, place the blade against the steel at a 20-degree angle. Then draw the blade along the entire length of the steel. Repeat the technique several times on each side of the blade.

WASHING AND STORING KNIVES

Proper sanitation of knives is essential to prevent cross-contamination. Always sanitize, rinse and dry knives by hand immediately after each use. Do not wash knives in commercial dishwashers. The heat and harsh chemicals can damage the edge and the handle. In addition, the knife could injure an unsuspecting worker if left in a sink full of water.

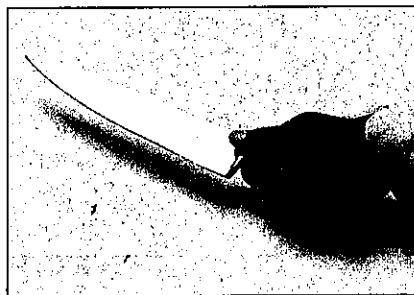
To prevent dulling their blades, store knives so that their blades never touch other knives or tools. Slotted knife holders or magnetized strips can be wall-mounted near work stations. The portable knife kit, made from flexible washable material, is designed to hold each knife in an individual protective sleeve.

GRIPPING YOUR KNIFE

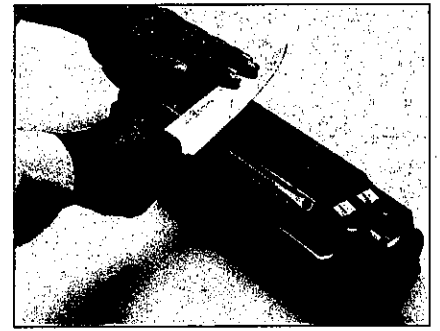
There are several different ways to grip a knife. Use the grip that is most comfortable for you or the one dictated by the job at hand. Whichever grip you use should be firm but not so tight that your hand becomes tired. Gripping styles are shown here.



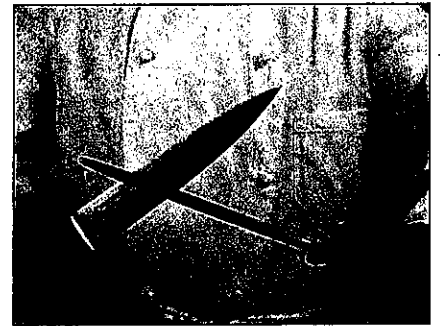
The most common grip: Hold the handle with three fingers while gripping the blade between the thumb and index finger.



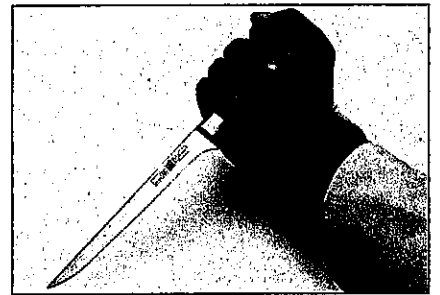
A variation on the most common grip: Grip the handle with four fingers and place the thumb on the front of the handle.



When sharpening a knife against a three-sided whetstone, go from the coarsest to the finest surface.



Honing a knife against a steel straightens the blade between sharpenings.

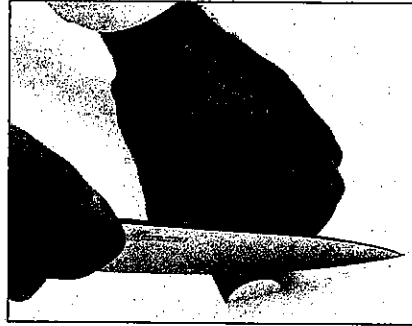


The underhand grip for a rigid boning knife: Grip the handle in a fist with four fingers and thumb. This grip allows you to use the knife tip to cut around joints and separate flesh from bone when boning meat and poultry.

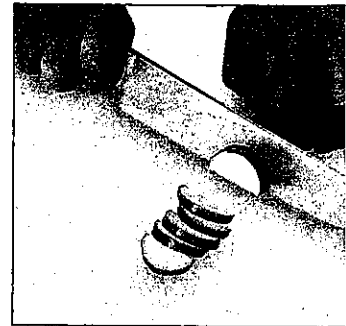
▶ CONTROLLING YOUR KNIFE

To safely produce even cuts, you must control (or guide) your knife with one hand and hold the item being cut with the other. Always allow the blade edge to do the cutting. Never force the blade through the item being cut. This produces smooth, even strokes. Using a dull knife or excessive force with any knife produces, at best, poor results and, at worst, a significant safety risk. Cutting out using your hand as a guide may also be dangerous. Two safe methods that produce good results are shown here.

Method A

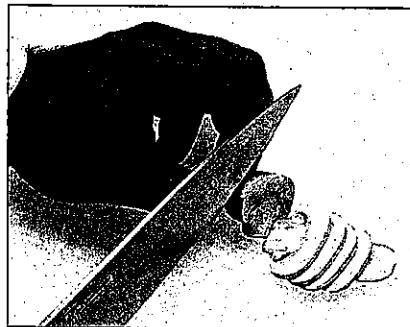


- 1 Keeping your fingertips curled back, grip the item being cut with three fingertips and your thumb. Hold the knife in the other hand. While keeping the knife's tip on the cutting board, lift the heel of the knife.

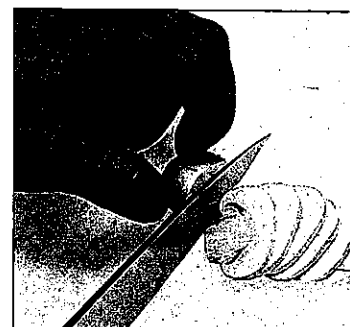


- 2 Using the second joint of your index finger as a guide, cut using a smooth, even, downward stroke. Adjust the position of the guiding finger after each slice to produce slices of equal size. After a few cuts, slide your fingertip and thumb down the length of the item and continue slicing. For this slicing technique, the knife's heel acts as the fulcrum.

Method B



- 1 Grip the item as described above. Using the second joint of your index finger as a guide, lift the knife's tip and slice by drawing the knife slightly back toward you and down through the item, cutting the item to the desired thickness.



- 2 The motion of the knife should come almost entirely from the wrist, not the elbow. Allow the weight of the knife to do most of the work; very little downward pressure needs to be applied to the knife. For this slicing technique, your wrist should act as the fulcrum.

CUTTING WITH YOUR KNIFE

A knife is used to shape an item and reduce its size. Uniformity of size and shape ensures even cooking and enhances the appearance of the finished product. Items are shaped by slicing, chopping, dicing, mincing and other special cutting techniques.

SLICING

Slicing is to cut an item into relatively broad, thin pieces. Slices may be either finished cut or the first step in producing other cuts. Slicing is typically used to create three specialty cuts: chiffonade, rondelle and diagonal. Slicing skills are used to produce oblique or roll cuts and lozenges.

Chiffonade is a preparation of finely sliced or shredded leafy vegetables used as a garnish or a base under cold presentations. As shown here, slicing leafy vegetables into chiffonade is a relatively simple process.

► **chiffonade** (chef-fon-nahd) to finely slice or shred leafy vegetables or herbs



1 Wash and destem the leaves as necessary. Stack several leaves on top of each other and roll them tightly like a cigar.



2 Make fine slices across the leaves while holding the leaf roll tightly.

As seen here, **rondelles** or **rounds** are easily made disk-shaped slices of cylindrical vegetables or fruits.

► **rondelles** (ron-dellz) disk-shaped slices



Peel the item (if desired) and place it on a cutting board. Make even slices perpendicular to the item being cut.

▶ **diagonals** oval-shaped slices

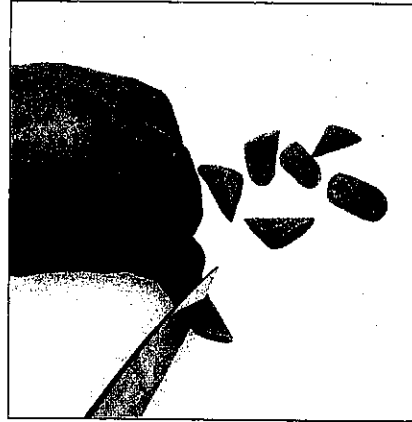
Diagonals or bias cuts are elongated or oval-shaped slices of cylindrical vegetables or fruits. They are produced with a cut similar to that used to cut julienne except that the knife is held at an angle to the item being cut.



Peel the item (if desired) and place it on a cutting board. Position the knife at the desired angle to the item to be cut and slice it evenly.

▶ **oblique cuts** (oh-BLEEK) small pieces with two angle-cut sides

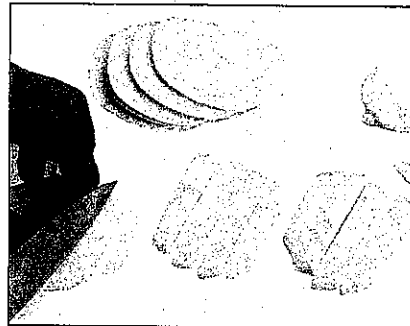
Oblique-cut or **roll-cut** items are small pieces with two angle-cut sides. It is a relatively simple cut most often used on carrots and parsnips.



Place the peeled item on a cutting board. Holding the knife at a 45-degree angle, make the first cut. Turn the item a half turn, keeping the knife at the same angle, and make another cut. The result is a wedge-shaped piece with two angled sides.

▶ **lozenges** diamond-shaped pieces, usually of firm vegetables

Lozenges are diamond-shaped cuts prepared from firm vegetables such as carrots, turnips, rutabagas and potatoes.



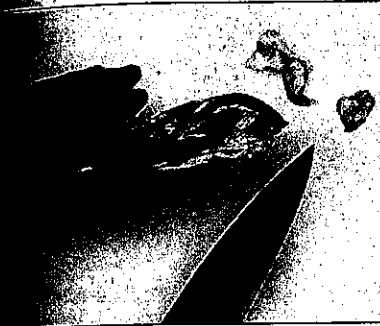
1 Slice the item into long slices of the desired thickness. Then cut the slices into strips of the desired width.



2 Cut the strips at an angle to produce diamond shapes.

HORIZONTAL SLICING

A horizontal slice is to **butterfly** or cut a pocket into meats, poultry or fish. It is also a method of cutting used to thinly slice soft vegetables.



1 With your hand opened and your fingers arched upward, hold the item to be cut firmly in the center of your palm.

2 Holding the knife parallel to the table, slice a pocket to the desired depth, or cut through the item completely.

► **butterfly** to slice boneless meat, poultry or fish nearly in half lengthwise so that it spreads open like a book

CHOPPING

Chop is to cut an item into small pieces when uniformity of size and shape is neither necessary (for example, coarsely chopped onions for a mirepoix that will be removed from the stock before service) nor feasible (for example, pars-

► **chop** to cut into pieces when uniformity of size and shape is not important

COARSE CHOPPING

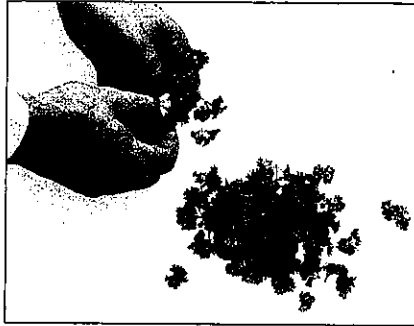
Coarse chopping does not mean carelessly hacking up food. Rather, the procedure is identical to that used for slicing but without the emphasis on uniformity. Coarsely chopped pieces should measure approximately $\frac{3}{4}$ inch \times $\frac{3}{4}$ inch \times $\frac{3}{4}$ inch (2 cm \times 2 cm \times 2 cm).



Grip the knife as for slicing. Hold the item being chopped with your other hand. It may not be necessary to use your finger as a guide because uniformity is not crucial.

CHOPPING PARSLEY AND SIMILAR FOODS

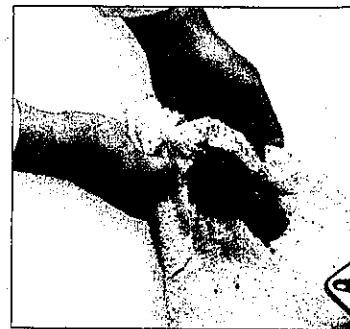
Parsley can be cut very coarsely or very finely. As shown here, it is easy to chop parsley and similar foods properly regardless of the desired fineness.



1 Wash the parsley in cold water; drain well. Remove the parsley sprigs from the stems.



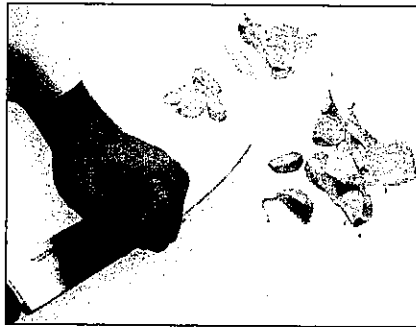
2 Grip the knife in one hand. With the other hand spread flat, hold the knife's tip on the cutting board. Keeping the knife's tip on the board, chop the parsley sprigs by rocking the curved blade of the knife up and down while moving the knife back and forth over the parsley.



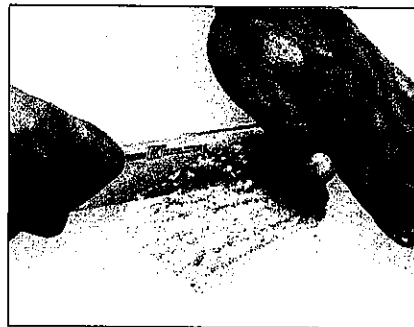
3 Place the chopped parsley in clean kitchen towel or a double layer of cheesecloth. Rinse it in cold water and squeeze out as much water as possible. The chopped parsley should be dry and fluffy.

CHOPPING GARLIC

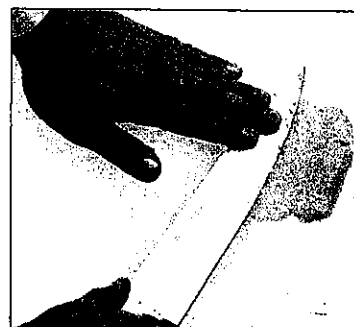
A daily chore in many food service facilities, peeling and chopping garlic is a simple job made easy with the procedure shown here.



1 Break the head of garlic into individual cloves with your hands. Lightly crush the cloves using the flat edge of a chef's knife or a mallet. They will break open and the peel can be separated easily from the garlic flesh.



2 With a flat hand, hold the knife's tip on the cutting board. Using a rocking motion, chop the garlic cloves to the desired size. Garlic is usually chopped very finely.



3 Garlic paste can be made by finely chopping the garlic and turning the knife on an angle repeatedly dragging the edge of the knife along the cutting board while mashing the garlic.

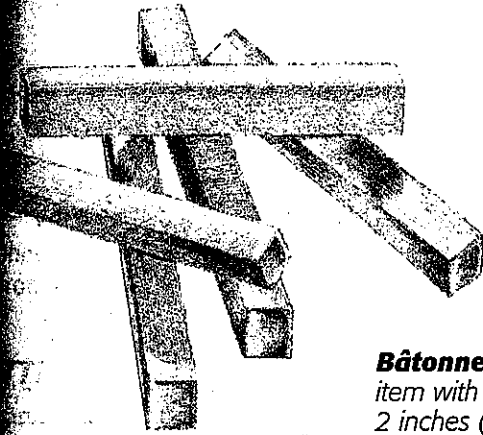
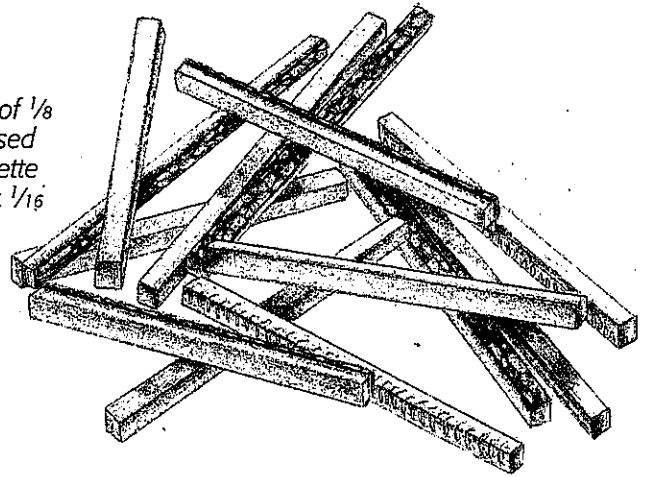
CUTTING STICKS AND DICING

Dicing is to cut an item into cubes. The techniques described here are most often used when uniformity of size and shape is important (for example, julienned carrots for a salad or brunoised vegetables for a garnish).

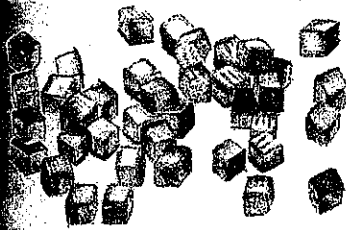
Before an item can be diced, it must be cut into sticks such as juliennes and batonnets. These sticks are then reduced through dicing into the classic cuts known as brunoise, small dice, medium dice, large dice and paysanne. Although most cooks have some notion of what size and shape "small diced" potatoes or julienne carrots may be, there are specific sizes and shapes for these cuts. They are:

► **dice** to cut into cubes with six equal-sized sides

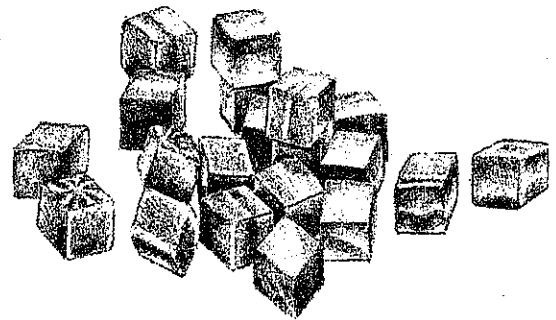
Julienne—(ju-lee-en) a stick-shaped item with dimensions of $\frac{1}{8}$ inch \times $\frac{1}{8}$ inch \times 2 inches (3 mm \times 3 mm \times 5 cm). When used with potatoes, this cut is sometimes referred to as an allumette (al-oo-MEHT). A fine julienne has dimensions of $\frac{1}{16}$ inch \times $\frac{1}{16}$ inch \times 2 inches (1.5 mm \times 1.5 mm \times 5 cm).



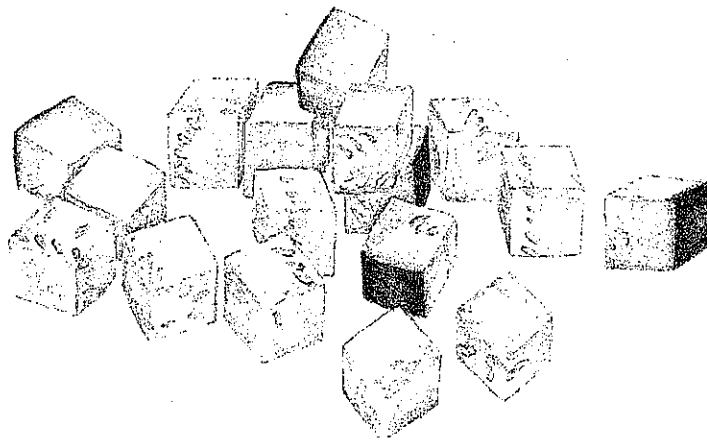
Bâtonnet—(BAH-toh-nay) a stick-shaped item with dimensions of $\frac{1}{4}$ inch \times $\frac{1}{4}$ inch \times 2 inches (6 mm \times 6 mm \times 5 cm).



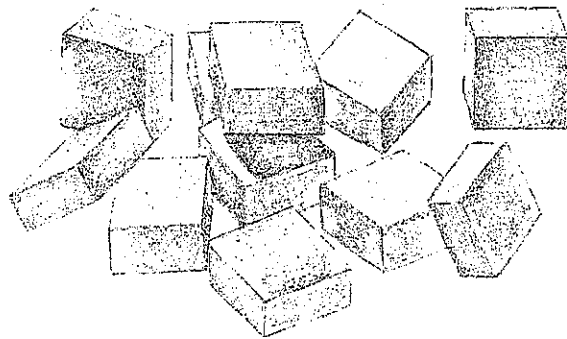
Brunoise—(broo-nwaz) a cube-shaped item with dimensions of $\frac{1}{8}$ inch \times $\frac{1}{8}$ inch \times $\frac{1}{8}$ inch (3 mm \times 3 mm \times 3 mm). A $\frac{1}{16}$ -inch (1.5-mm) cube is referred to as a fine brunoise.



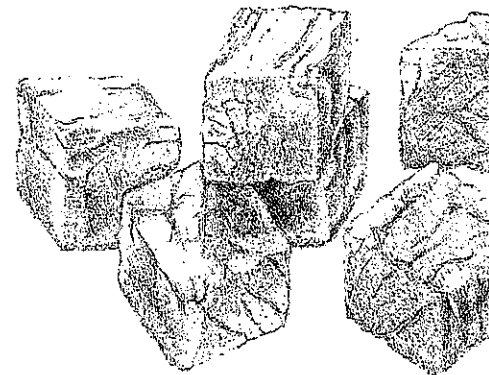
Small dice—a cube-shaped item with dimensions of $\frac{1}{4}$ inch \times $\frac{1}{4}$ inch \times $\frac{1}{4}$ inch (6 mm \times 6 mm \times 6 mm).



Medium dice—a cube-shaped item with dimensions of $\frac{1}{2}$ inch \times $\frac{1}{2}$ inch \times $\frac{1}{2}$ inch (1.2 cm \times 1.2 cm \times 1.2 cm).



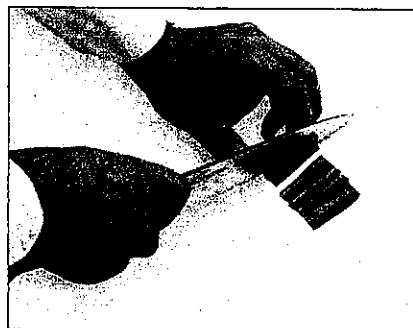
Paysanne—(pahy-sahn) a flat, square, round or triangular item with dimensions of $\frac{1}{2}$ inch \times $\frac{1}{2}$ inch \times $\frac{1}{8}$ inch (1.2 cm \times 1.2 cm \times 3 mm).



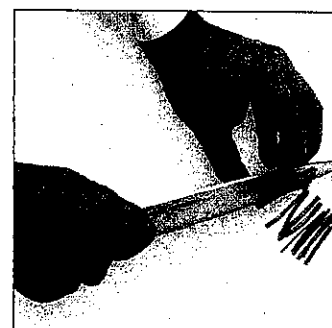
Large dice—a cube-shaped item with dimensions of $\frac{3}{4}$ inch \times $\frac{3}{4}$ inch \times $\frac{3}{4}$ inch (2 cm \times 2 cm \times 2 cm).

CUTTING JULIENNE AND BÂTONNET

Julienne and bâtonnet are matchstick-shaped cuts prepared using the same procedure as cutting sticks for dicing.



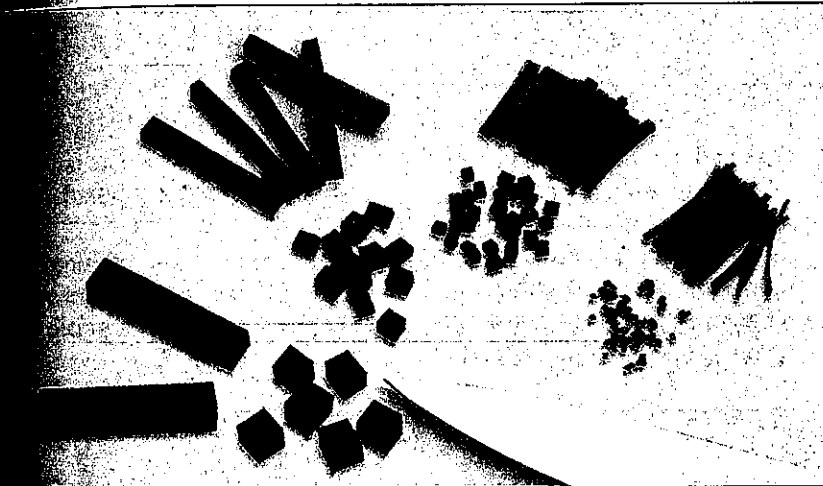
1 Peel the item (if desired) and square off the sides. Trim the item so that the slices cut from it will be the proper length. Cut even slices of the desired thickness, $\frac{1}{8}$ inch (3 mm) for julienne or $\frac{1}{4}$ inch (6 mm) for bâtonnet.



2 Stack the slices and cut them evenly into sticks (also referred to as "planks") that are the same thickness as the slices.

CUTTING BRUNOISE AND SMALL, MEDIUM AND LARGE DICE

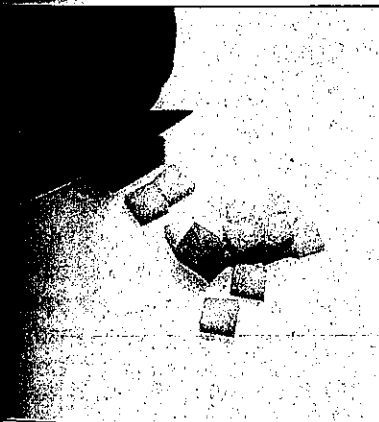
Brunoise as well as small, medium and large dice are made by first cutting the vegetable into sticks following the procedure for cutting julienne or bâtonnet, then making cuts perpendicular to the length of the sticks to produce small cubes. Making a 3/8-inch (3-mm) cut perpendicular to the length of a julienne produces a fine brunoise. Similarly, a fine julienne (1/16 inch x 1/16 inch x 2 inches) is used to produce a fine brunoise. Making a 1/4-inch (6-mm) cut perpendicular to the length of a bâtonnet produces a small dice. A 1/2-inch (1.2-cm) cut from a 1/2-inch (1.2-cm) stick produces a medium dice, and a 3/4-inch (1.8-cm) cut from a 3/4-inch (1.8-cm) stick produces a large dice.



bâtonnet and julienne sticks and the large, medium, small and brunoise dices are cut from them.

CUTTING PAYSANNE

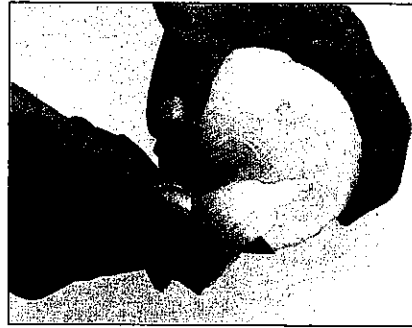
Paysanne is a classic vegetable cut for garnishing soups and other dishes. It could be described as a very thin 1/2-inch cube. It is produced by following the procedure for dicing, but in the final step the 1/2-inch x 1/2-inch (1.2-cm x 1.2-cm) sticks are cut into slices 1/8 inch (3 mm) thick. The term *paysanne* is also used to refer to similarly sized round or triangular pieces.



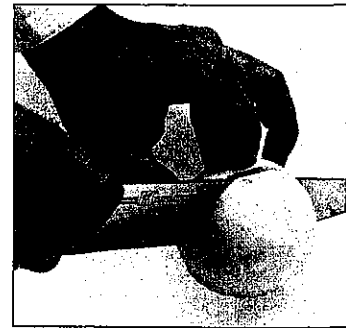
Cutting paysanne from a 1/2-inch x 1/2-inch (6-mm x 6-mm) stick.

DICING AN ONION

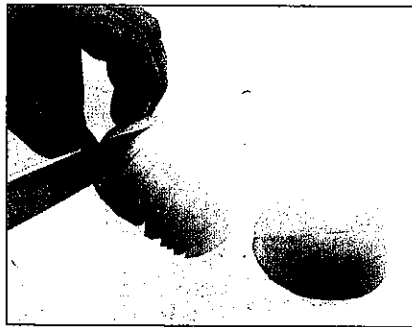
Onions are easily peeled and diced to any size desired using the procedure shown here.



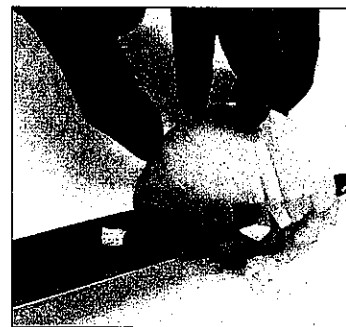
1 Using a paring knife, remove the stem end. Trim the root end but leave it nearly intact (this helps prevent the onion from falling apart while dicing). Peel away the outer skin; be careful not to remove and waste too much onion.



2 Cut the onion in half through the stem and root. Place the cut side down on the cutting board.



3 Cut parallel slices of the desired thickness vertically through the onion from the root toward the stem end without cutting completely through the root end.



4 Make a single horizontal cut on a small onion or two horizontal cuts on a large onion through the middle of the onion, again without cutting through the root end.



5 Turn the onion and cut slices perpendicular to the other slices to produce diced onion.

MINCING

Mincing is to cut an item into very small pieces. The terms *finely chopped* and *diced* are often used interchangeably and are most often used when referring to shallots, herbs and other foods that do not have to be uniform in shape.

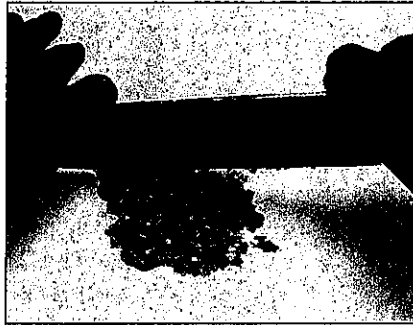
► **mince** to cut into very small pieces when uniformity of shape is not important

MINCING SHALLOTS

The procedure for mincing shallots is shown here.



1 Peel and dice the shallots, following the procedure for peeling and dicing an onion.



2 With a flat hand, hold the knife's tip on the cutting board. Using a rocking motion, mince the shallots with the heel of the knife.

TOURNER

A **tourner** (toor-nay; "to turn" in French) is a cutting technique that results in a football-shaped finished product with seven equal sides and flat ends. The size of the finished product may vary, the most common being 2 inches (5 cm) long and 1 to 1½ inches in diameter. This is a more complicated procedure than other techniques and it takes considerable practice to produce good, consistent results.

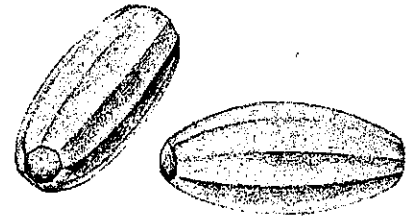
► **tourner** (toor-nay) to cut into football-shaped pieces with seven equal sides and blunt ends



1 Cut the item being "turned" into pieces 2 inches (5 cm) × ¾ to 1 inch (2 to 2.5 cm). Each piece should have flat ends. (Potatoes, turnips and beets may be cut into as many as six or eight pieces; carrots can simply be cut into 2-inch lengths.) Peeling is optional because in most cases the item's entire surface area is trimmed away.



2 Holding the item between the thumb and forefinger, use a tourné knife or a paring knife to cut seven curved sides on the item, creating a flat-ended, football-shaped product.



► **parisienne** (pah-ree-zee-en) spheres of fruits or vegetables cut with a small melon ball cutter

► **gaufrette** (goh-FREHT) a thin lattice or waffle-textured slice of vegetable cut on a mandoline

PARISIENNES

A melon ball cutter or Parisienne scoop can be used to cut fruits and vegetables into uniform spheres, or **Parisiennes**. Small balls or spheres of fresh fruit can be used in fruit salad, while tiny spheres of carrot, turnip, squash and other vegetables can be used as a side dish or to garnish soup or an entrée. Melon ball cutters are available in a range of sizes, the smallest of which has an approximate $\frac{3}{8}$ -inch (9-mm) diameter and is known as a Parisienne (or Parisian) scoop.



1 Cut each scoop with a pressing and twisting motion.

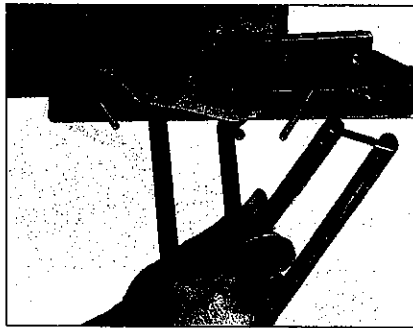


2 Make the cuts as close together as possible in order to minimize waste.

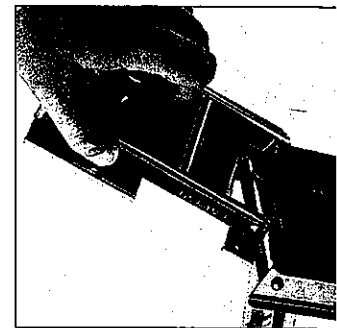
USING A MANDOLINE

The mandoline is a nonmechanical cutting tool. It does jobs that can't be done with a chef's knife, such as very thinly sliced apples or large quantities of uniform vegetables, quickly, easily, and very accurately. It can also produce decorative slices such as a ridged slice or **gaufrette** that cannot be done with a conventional chef's knife.

When using the mandoline, always use the guard or a steel-mesh shield to protect your hand.



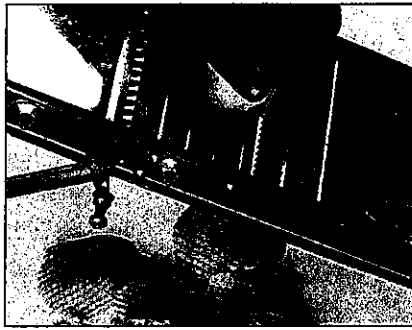
1 To use a mandoline, position the legs and set the blade to the desired shape and thickness.



2 Slide the guard into place.

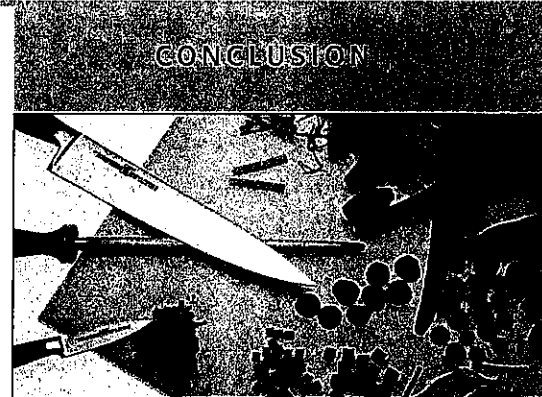


3 To slice, slide the item against the blade with a single, smooth stroke.



4 To cut gaufrette, select the ridged blade and set it to the desired thickness. Make the first slice, turn the item 60 to 90 degrees and make a second slice. Turn the item back to the original position and make another slice, and so on.

Although many slicing and dicing machines are available, none can ever completely replace a skilled chef with a sharp knife. Make becoming efficient with knives a high priority. Possessing good knife skills allows more attractive products to be produced in a safe and efficient manner. Chefs will use the classic cuts and techniques outlined in this chapter throughout their careers. Memorize the procedures and practice them often. And remember, a dull or carelessly handled knife is always dangerous.



CONCLUSION

QUESTIONS FOR DISCUSSION

- 1 Explain the step-by-step procedures for sharpening a knife using a three-sided whetstone.
- 2 What is the purpose of a steel? How is it used?
- 3 Why is it necessary to cut vegetables into uniform shapes and sizes?
- 4 Describe the following cutting procedures: slicing, chopping and dicing.
- 5 Identify the dimensions of the following cuts: julienne, bâtonnet, brunoise, small dice, medium dice, large dice and paysanne.
- 6 Describe the procedure for making tournéed vegetables.
- 7 Describe three preparations for which a mandoline would be useful.
- 8 A large number of vendors sell professional-quality knives through their websites. What are the advantages and disadvantages of buying knives from an online source?

