

# Basic equipment

The range of equipment on display in art shops is immense, and can be bewildering to the beginner. But you need surprisingly little to produce a watercolor painting, indeed watercolor is one of the simplest mediums in terms of materials, all of which are lightweight and portable, and can be used outdoors as easily as in. These tools will be sufficient for the techniques shown in *Basic Techniques*, with the exception of highlights (see pp.62-5).

Watercolor paints are made in different qualities and different forms for the varied uses of the medium. The two qualities can be divided into "student's" and "artist's," the latter being in the main made from superior pigments and thus more expensive. You could begin by experimenting with student's paints and progress to artist's quality as your confidence grows and you feel able to tackle more advanced work, but it is wiser to invest in quality from the outset.

## TYPES OF WATERCOLOR

Watercolor paints are produced in three main forms, pans, tubes and bottles, the first two being the most popular. Each has its own advantages. It takes longer to release paint from a pan than to squeeze it from a tube, so tubes allow you to mix up larger washes, as well as giving greater scope for varying the consistency. But the pans come in boxes, with the lid serving as a palette, which is more convenient for outdoor work – if you use tubes you must take a separate palette. Pans in boxes are often used for smaller paintings and outdoor sketches. The paint, if artist's quality, always remains slightly moist, quickly releasing color onto a wet brush.

To begin with you will need at least one small pointed brush, a size 3 or 4, one medium and one large wash brush. Again there is a large range, made from a variety of natural and artificial fibers. Sable brushes are the most expensive and the best, springy and hard wearing, but synthetic brushes are a reasonable alternative for initial attempts, and softer brushes, such as ox or squirrel hair, can be useful on occasions.

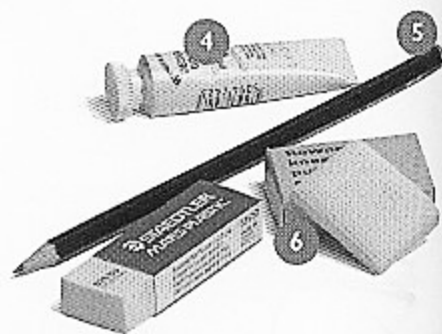
Even if you are using a watercolor box with its own palette, you may need another one as well; the palettes with only small pans can be restrictive. My preferred palette has many small pans for squeezing out paint and large compartments for mixing with plenty of freedom. Apart from the many plastic or porcelain palettes available, many plastic disposable food containers and white plates and saucers make excellent alternatives.

It's a good idea to use two water containers, a large one for rinsing brushes and a smaller one which you can refill for a clean supply of water. To carry water for outdoor work, a lightweight plastic container with a lid is ideal.

## Paints

**1 Tubes** contain concentrated paint of a thick consistency, ready for dilution with water. They are priced according to a grading system, with some colors being more expensive than others.

**2 Good-quality moist pans** will immediately release color onto a wet brush. During color mixing they inevitably become contaminated with other colors, and have to be cleaned.



**3 Paint box** Each pan can be replaced when finished. A little space between pans will reduce contamination of adjacent colors. The palette is small and will need regular cleaning with tissue paper during use to ensure purity of colors.

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**4 White gouache** This is a very concentrated opaque white. Mixing it with watercolors makes them opaque, a medium known as body color. White gouache is often used for highlights and finishing touches.

## Pencils

**5 Pencils** range from 6H (very hard) to 9B (very soft). As the number increases the graphite becomes softer, creating progressively darker lines. For the initial underdrawing for a watercolor, artists normally use a range from HB to 4B.





### Erasers

**6** There is a variety of erasers available, which work in different ways. The "putty" type used by many professional draftsmen has to be kneaded slightly then lifts off the graphite, pastel or charcoal by absorbing it. Traditional soft erasers leave a residue, which must be brushed off the paper. The hard eraser works like fine sand paper, rubbing off with friction.

### Water containers

**7** Plastic containers with watertight lids are good for outdoor work. They are lightweight for carrying, and brushes can be rested in the special troughs on the top.

**8** Household glass jars, thoroughly cleaned, make ideal water containers. The clear glass allows you to check the purity of the water, and change it when necessary.

### Palettes

**9** Instead of one large, cumbersome palette, you can use several small saucers. These are convenient to maneuver, as you can bring the ones in use closer. Some have separate compartments for small mixes, while others are open for larger washes. They are only suitable indoors on a work surface.

**10** Porcelain palettes with smooth surfaces on which the paint flows and mixes with ease, are pleasant to work on, but their weight and fragility restricts them to indoor work.

### Brushes

**11** Round These are usually synthetic or sable. The best quality is the sable, which will always return to its original shape with a fine point. It is the easiest brush to begin with. The best sizes to start with are a no. 3 and no. 10.

**12** Rigger This is a long, thin variety of the round brush, made of either synthetic fibers or sable. Designed for extended fine lines, it is traditionally used by marine artists. The long hairs allow extra control, with less susceptibility to hand shake. It's also ideal for brush drawing.

**13** Oriental brushes Made from deer's hair, these are an economical addition to a kit. They are ideal for a calligraphic style of painting, but with practice will produce a wide variety of brushmarks. The hairs become springy when wet, and will hold any particular shape you may require.

**14** Long flat Usually produced in ox hair or synthetic, which have different characteristics. The synthetic has finer hairs and is more springy, but the ox hair will last longer and produces a wide variety of brushstrokes on a textured surface.

**15** Mop brush A squirrel soft-hair brush, mainly used for large washes or used for general painting on a large scale, producing a loose freehand effect.

**16** Small hog's hair As well as applying paint, this is mainly used for scrubbing the painted surface with water, to loosen the pigment for lifting off. As it wears down, the hairs can be clipped to keep them firm.

**17** Hake A reasonably priced wash brush with ox hair. With a little practice this can become an invaluable addition to the kit. It is used for laying broad washes.

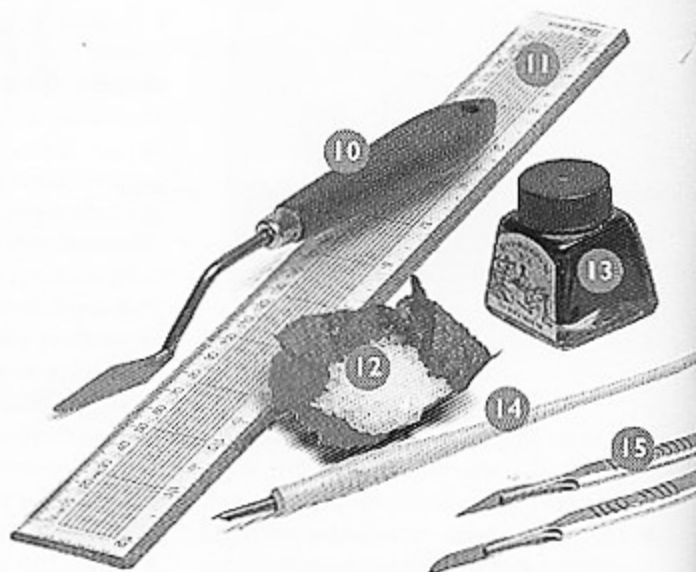
**18** Decorator's brush These come in many sizes and qualities. Some better ones, notably one made of cactus fibers, can be used as wash brushes, with stiffer hairs producing rich textured effects.



# Special equipment

Later in the book you will explore some special techniques and more unusual methods, and the equipment given here reflects the need to experiment, and in some cases to "borrow" equipment and techniques from other fields.

Some of the items shown, however, such as a hair-dryer, tissue, gumstrip, and masking fluid, are extensions to your basic kit. Others would be used rarely as the need arises, for example, salt.



**1 Hairdryer** A small low-powered one will suffice, with a long flex. Used for drying intermediate washes and to speed up the process of stretching paper. Care must be taken when using electricity in such proximity to activity with water.

**2 Masking tape** For masking the outside edge of the picture to leave a clean edge. Also as a straight-edge mask during painting (see p.92). It has low adhesion and will not tear the paper when peeled off.

**3 Gumstrip** Used for stretching paper. Use 2-in-wide strip to withstand the stresses of paper stretching.

**4 Small natural sponges** Can be used for lifting off wet paint, or for applying it, to produce fine irregular patterns.

**5 Cotton buds** Perfectly suited for lifting off fine areas of wet paint for highlights, as they absorb quicker than a brush.

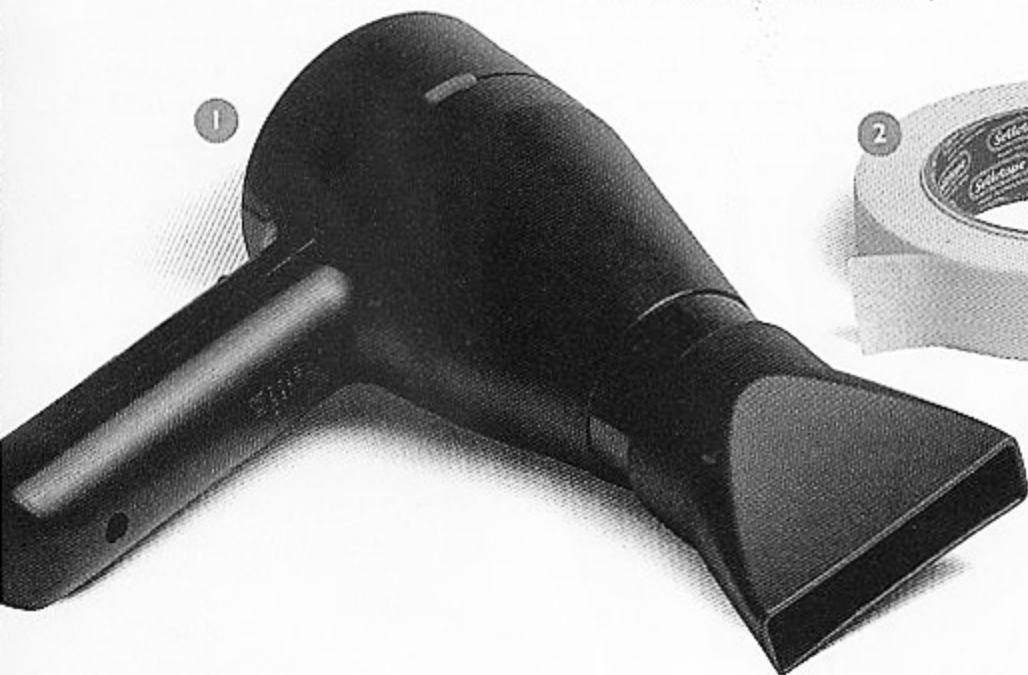
**6 Masking fluid** Liquid rubber solution, which is painted on to protect the selected areas from paint. It has a short shelf life, becoming

discolored and separating out, so should be used within a few months.

**7 Synthetic sponges** Ideal for wetting down the paper. Small pieces can be torn off for texturing effects.

**8 Tissue** Absorbent tissue has several uses, including keeping the palette clean during painting, cleaning brushes, lifting off, and removing stray splashes. Highlights and cloud effects can be produced by lifting out paint with crumpled tissue (see p.40).

**9 Board** Should be lightweight and resistant to warping. Thin-cross plywood is best suited to the purpose.







### Other equipment

**10 Painting knife** For applying thick paint and for knifing out. Different shapes and sizes are available. The one shown here has a rounded point.

**11 Ruler** Used in conjunction with a pencil or brush for straight lines, and with a scalpel and masking tape for accurate straight-edged masking.

**12 Rock salt** Special textures can be achieved with salt. Coarse-grained salt is best, although it needs time to work. It can be crushed to make finer crystals.

**13 Indian ink** A very concentrated black, mainly used in line and wash or drawing. It usually comes in small jars, but can also be bought in the traditional stick form.

**14 Nib pen** The least expensive is a mapping pen, but drawing pens with interchangeable steel nibs are advised for the best results.

**15 Scalpel** Can be fitted with a curved or straight blade. The pointed blade is best for cutting paper and scratching out fine lines. The curved blade will scratch out larger areas.

**16 Gum arabic** A viscous medium that can be added to a paint mixture to thicken it slightly and give it a slight sheen. It does not sacrifice the transparency of color.

**17 Ox gall liquid** A wetting agent that increases the volatility of watercolor and causes it to flow more freely.

**18 Toothbrush** An excellent tool for spatter effects. Its shape allows you to point it at the chosen area and pull your finger over the bristles to produce a fine spray.

**19 Wax crayons and candle** Either of these can be used for resist methods, in which paint is laid over wax. The wax repels the water, so color will settle only on the non-waxed areas.



# Paper

Watercolor paper can either be bought in pads of various sizes or in large sheets which are then cut down to the size you require. The former are more expensive, but convenient for outdoor sketching. The paper is made in three different surfaces: smooth, medium, and rough. The smooth paper is known as hot pressed (HP), because it is produced with heat and under pressure. This is also available as watercolor board, which is often used by illustrators, as it removes the necessity for stretching. The medium paper, the most commonly used, is called "not," short for "not hot pressed." Rough paper is known only by their name. It has a coarse texture liked by some artists, but is not the easiest for beginners. Specialist suppliers also stock handmade papers, which do not conform to the above categories, and all have their own special characteristics. There are also tinted papers, which are made with a faint color bias.

## PAPER THICKNESS

Another variation in papers is their thickness, which is expressed in pounds, referring to a ream of 500 sheets. The thinner paper (140lbs or below) is cheaper, but needs to be stretched before use or may buckle and warp when you wet it, and will dry in the same condition. Cartridge paper can also be stretched. This is an inexpensive alternative to watercolor paper if you like a smooth surface. Paper above 200lbs does not require stretching.

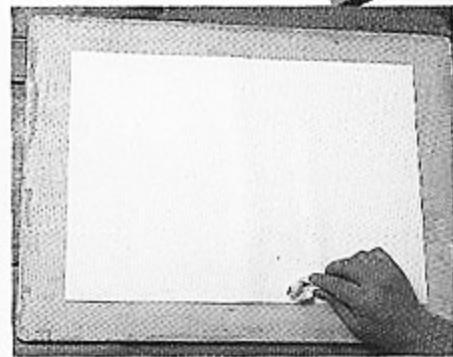
Pads of watercolor paper are often made in the form of blocks. Each sheet has to be torn away on all sides to remove it, which has a similar effect to stretching. It is not quite as effective, but the pads are easier for outdoor work.

## Stretching paper

*If you have tried watercolor painting on fairly thin paper, you will have noticed its tendency to buckle when you apply wet washes, and then to dry unevenly, in a series of waves. This is due to the rapid expansion of the paper when wet, a tendency which you can turn to your advantage. If you tape it down when wet and fully expanded, it will shrink as it dries, pulling itself taut as a drum, producing a lovely springy surface not unlike a canvas.*



**1** The paper must be fully submerged in water for a few moments, either in the bath or sink or slowly passed through a large bowl, as shown here. This ensures that every inch of both sides is thoroughly wetted.



**2** Take the paper out of the water, still dripping wet, and lay it on the board in position to be stretched. Leave it for a few minutes for the water to be completely absorbed, and when the buckling process has reached maximum, mop off surplus water with tissue. Then pull the paper at one end, holding the other end down.

*Hot-pressed paper is either completely smooth or has a very fine-grained texture. It is the most suitable paper for pen and line work. It is less absorbent than other papers, so wet paint may pool, and washes dry with hard edges.*

## ► Sketchbooks

*You should have two different sizes: one small one with cartridge paper for quick pencil sketches and light washes, and an A4 pad of watercolor paper for more complete paintings.*





**Cold-pressed paper**, often referred to as "Not" paper standing for "not hot pressed," is the most commonly used. It has enough texture to hold the paint well, but will still allow for fine brushwork.

**Rough paper** has a more pronounced grain, resulting in looser and more textural brushwork. This is not recommended for the beginner, but can be very exciting to use when you become more experienced.

**Handmade paper** is made in a variety of weights and surfaces. It can be even more unpredictable than a Rough paper, and is only recommended for the more experienced. It is also more expensive than machine-made papers.

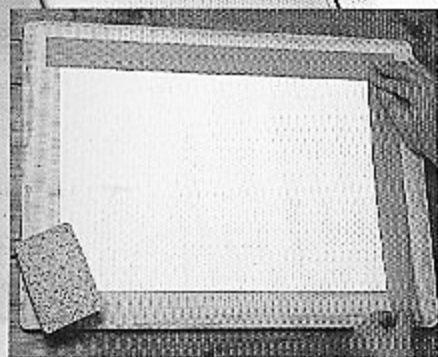
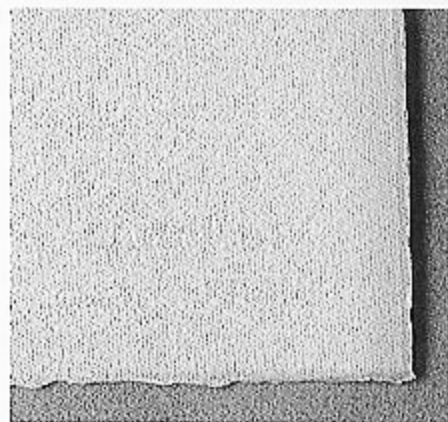
**Drawing paper (cartridge paper)** This is the least expensive paper, mainly used for drawing. It will accept watercolor, but being lightweight, will need stretching. Drawing paper in sketchbook form is adequate for light washes.

**Tinted papers** These are a version of normal watercolor paper, but made in an overall even, pale color. The one shown here is a tinted hot-pressed paper. If you cannot obtain these papers, you can tint your own with a flat wash of diluted acrylic paint.

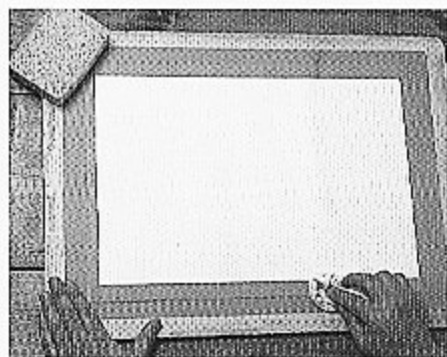


#### ► Watermarks

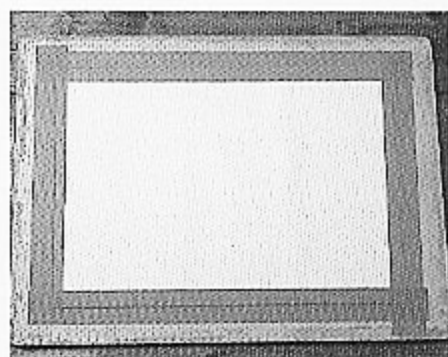
Even though you can paint on both sides of most good-quality papers, there may be a slight difference in texture. If you hold the paper up to the light and read the watermark, you can check which is the correct side.



**3** Dry the edges of the paper where the gumstrip will go with some fresh tissue, then cut the strip into lengths, wet the sticky side with a damp sponge, and stick down.



**4** When all four sides are taped down, use more tissue to wipe over the top of the gumstrips. Press it down to squeeze out any excess water and ensure a good adhesion between the two surfaces. Also mop up any nearby pools of water which could run into the gumstrip, dissolving the glue and weakening the adhesion.



**5** Leave the paper to dry for a few hours, or if you are in a hurry, speed up the process with a hairdryer. It is advisable to check on it during drying; if one side has not stuck properly, you can reinforce it with a fresh piece of gumstrip.