# Learn to dye

## rainbow one pot fibre


spinning | weaving | carding | felting | knitting | dyeing

# Exploring colour with wool dyes

Dyeing your own fibre is fun and easy to do. Ashford wool dyes allow you to create every colour of the rainbow time after time using simple techniques.

### Exhaust Dyeing

Exhaust dyeing means the dye reacts with the fibre, water and additives until it is fully absorbed by the fibre.
To test if your dye has exhausted, use a teaspoon to press into the fibre: when the liquid on the teaspoon appears clear then the dye has exhausted.
Ashford wool dyes are acid exhaust dyes and require heat to set the dye into the fibre. Ashford dyes are for use only on protein fibre such as wool and silk.

### Terms used in exhaust dyeing:

Mordant (white vinegar) – Assists the dye to fix to the fibre.
Wetting agent (dish washing liquid) – This coats the fibre causing the dye molecules to move evenly around the fibre, to prevent patchy or uneven dyeing.

### To make a 1% solution:

10 gms of dye makes 1 litre
5 gms of dye makes 500 ml
1 gm of dye makes 100 ml

### The easiest dye solution is:

1 litre mix containing 10 gms of dye powder, 150 ml of white vinegar and 850 ml of water, making 1 litre in total. This solution is most commonly used in our instructions for rainbow dyeing and for teaching purposes.

### This easy formulation for using Ashford wool dyes:

| Weight of Fibre | White Vinegar | Dye Powder |
|---|---|---|
| 1 kilo | 150 ml | 10 gms |
| 500 gms | 75 ml | 5 gms |
| 100 gms | 15 ml | 1 gm |

Remember: The stronger the dye powder, the more vinegar is used.
Note: Dye powders can surprisingly vary in weight/volume. We recommend weighing for the most accurate results.

# Dyeing with Ashford dyes

## Safety Guidelines

It is important to follow these guidelines as dyeing can be hazardous.

**Safety first. Always...**

- Wear rubber or plastic gloves, when mixing and dyeing
- Wear a face-mask when handling any powders or if you are in an enclosed area with the dye fumes
- Cover all surfaces
- Use dye equipment for dyeing only
- Label and date all dyes and solutions. Lock away if possible
- Neutralise all dye baths at the completion of dyeing and before disposal. Use baking soda to neutralise the acid in the water

## Handy Hints

- Avoid temperature shocks between soaking, dyeing or rinsing stages as this can damage or shrink the fibre
- Handle fibres gently to prevent felting
- Never put animal fibres into the tumble dryer, as this causes felting
- The amount of dye used is always in ratio to the dry weight of fibre to be dyed. If the weight of fibre increases, the weight of dye increases proportionally to achieve the same dye shade
- Always weigh the fibre first. If you have too much dye to the weight of the fibre, it will not exhaust
- Always mix dye with hot water, as this dissolves the fine granules/powder

## Materials and equipment required

- Dye pot – needs to be large enough to hold fibre and sufficient water for dyeing. A lid is required to reduce condensation and exclude light. Stainless steel is ideal, because it does not react with the dye. Copper, brass and iron react with metal salts and "saddens" the dye
- Stainless steel or plastic spoons to be used when stirring dye or mordant (wooden spoons or dowel stain and can transfer dye when wet)
- Rubber gloves protect hands from dyes
- Face-masks are required for handling dry dye powder and help to avoiding breathing in fumes
- Cream cleanser will neutralise the dye and is excellent for removing stains from surfaces
- Before discarding any dye liquid use baking soda to neutralise the solutions
- Levellers or wetting agents are added to the dye bath to prevent patchy or uneven dyeing. Use a neutral dish washing liquid as a leveller. To each litre of water add a few drops of dish washing liquid

# Rainbow One Pot Dyeing Fibre

**You will need:**

Ashford wool dyes - scarlet, blue, yellow
300 gms of washed fleece
Rubber gloves and Face-mask
Dish washing liquid
White vinegar
Measuring jug
Stirrers
Bucket or bowl
Jars - 500 ml *(dye use only)*
Dye pot *(dye use only)*
Heating element

01

In a bowl or bucket add a drop of dish washing liquid to warm warmer. Soak the fibre for 30 minutes.

02

While the yarn is soaking, make up the 3 colours in separate jars. Use 3 gms of dye powder in each jar.

03

Add 50 ml of hot water. Stir to dissolve the dyes.


Once the dye powder has dissolved, add 45 ml of white vinegar.


Add 205 ml of cool water to each jar.
Note: Each jar should have 300 ml of liquid.


Squeeze out the excess water from the fibre and place in the dye pot.


Visually divide the fibre into thirds. Using one colour per third, slowly pour the first colour into the dye pot.

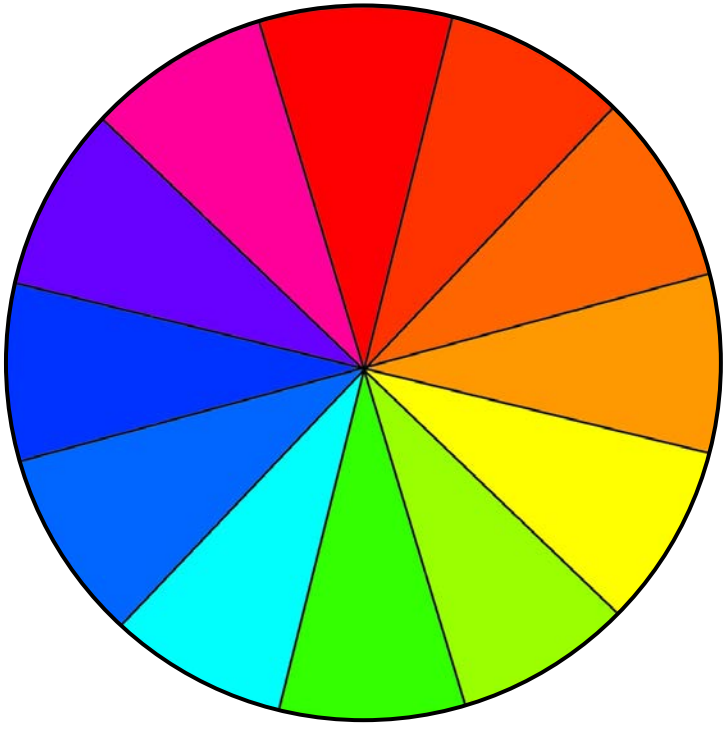

Pour on additional colours, keeping the colours slightly separated.


Press down fibre to soak up the dye, ensure all fibre is dyed.


With lid on, slowly bring to the boil then turn the heat down and simmer for 20 - 30 mins or until dye has exhausted.


Once all the colour has been absorbed and the water is clear, allow the dyebath to cool before handling.


Remove the fibre from the dye pot. Let the fibre cool, rinse in warm water then rinse with cooler water. Do not shock the fibre with a sudden change in temperature. Spread fibre out on a towel or sheet and leave to dry in the shade.



The colour wheel has three primary colours - yellow, scarlet and blue - from which all other colours are mixed.

Secondary Colours:
Yellow + Blue = Green
Blue + Red = Violet
Red + Yellow = Orange

Tertiary Colours:
Blue + Violet = Blue-Violet
Blue + Green = Blue-Green
Yellow + Green= Yellow-Green
Yellow + Orange= Yellow-Orange
Red + Orange = Red-Orange
Red + Violet = Red Violet

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WHEELS & LOOMS

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