



# CERTIFICATE OF ACHIEVEMENT IN SYNTHETIC DYEING SYLLABUS

## 1.0 INTRODUCTION

In setting out the syllabus it was intended to allow candidates complete freedom of interpretation within the requirements of the syllabus and any stated criteria. The purpose of the assessment is to judge how well the candidate has fulfilled the requirements of the syllabus in the light of her/his interpretation.

This syllabus should be read and used in conjunction with the CoA Handbook.

There is a separate Resource List which is regularly reviewed and updated as required.

Candidates must show evidence of successful study and understanding of the techniques involved in the use of synthetic dyes on yarns, textiles, and any other suitable material. Craftsmanship, design, record-keeping, achievement, and presentation will also be taken into consideration in the final assessment.

The work submitted for assessment should include a portfolio of samples and a project piece; the requirements for both are set out below.

Neither the name of the candidate nor any identity-revealing photograph may be shown in any of the submitted work.

## 2.0 PORTFOLIO OF SAMPLES

**Candidates who experiment with and try out different materials before making their portfolio samples will have a fuller experience and emerge with wider knowledge and skills than those who do not do this.**

**2.1 Fibres:** You must show evidence of the use of synthetic dyes on wool, cotton, silk, linen and at least two other fibres or combinations of fibres. Samples should include evidence of dyeing both yarn and fabric.

Some samples should show decorative use of dyes and could include space-dyeing, dip-dyeing, painting, printing, stencilling, batik, tie-dyeing and over-dyeing, and other resist techniques. Experiments with dyes on other materials can be interesting; many dyes can be successfully applied to other natural materials such as shells, bone, paper, wood and basketry materials.

You are expected to produce a wide range of well-documented samples indicating the properties of the type of dyes used, quantities used and your reason for choosing them.

**2.2 Dyes** should include:

**Acid:** For protein (animal and silk) fibres and some synthetics (e.g. nylon, acrylic); used with a weakly acidic bath, the addition of Glauber's salts can aid even dye take-up.

**Fibre reactive:** As their name suggests these dyes react chemically with the fibre to form a bond that is stronger and more permanent than other types of dye. There are two main types: cold water reactive and hot water reactive, both are used with household salt and some form of soda to create an alkaline dye bath. Reactive dyes are generally chosen for vegetable fibres, but silk can also be dyed successfully. To dye wool they need to be used in an acidic dyebath and the resulting colours are generally paler.

**Direct:** Used on cotton, linen and viscose. Common salt or Glauber's salt is used as a dyebath assistant.

**Vat Dyes:** these are mainly used nowadays for obtaining blue from synthetic indigo, and the vat can be made to several different recipes using various chemicals.

**Note:** Another type of dye that you may like to try is Disperse Dye, but this is not compulsory.

**Note: Pre-metallised** dyes have been removed from the syllabus as they are now recognised to be environmentally unsafe, have been banned in the USA and are likely to be banned in Europe. (Amendment made 20 July 2014)

### 2.3 Requirements for samples:

1. Samples should be tested for light and/or wash fastness, to judge them fit for intended purpose;
2. Fabric samples should be large enough to show the effect of the dye.
3. Fabric samples must be mounted by securing on one edge only for the assessment presentation. The assessor should be able to handle the sample and examine the back.
4. Yarn samples should be large enough to show the effect of the dye.

**2.4 You must make clear notes about the production of your samples.** It is useful to set each sample's notes out in the same manner and ensure that the assessor can easily relate the notes to the sample.

For each sample your notes must include:

1. Details of dye type and recipe giving percentages of dye and assistants in relation to dry weight of dye goods;
2. Fibre(s) used and preparation methods;
3. Equipment used and dyeing temperature;
4. Sample(s) of the dyed fibre, yarn or fabric mounted with the notes or referenced so that the assessor can find them;
5. Details of finishing;
6. Evidence of testing for light and wash fastness;
7. Relevant dates;
8. Your comments on the sample. Evaluate what you have done.

Your notes on decorative techniques should include design inspiration, sketches, and any other evidence of your design process

Notes for dyeing should include experiments and tests on light and wash fastness. The results of these tests will help you determine the suitability of each dye tested for

the project you have in mind. You may then choose to add some comments on your observations and conclusions from your test results, plus some recommendations for the most suitable dyes for different projects and end products.

Different suppliers may provide differing instructions with the above dye types. When using dye powders, you will find it easier and more accurate to first dissolve them in water to make a stock solution at a known strength. These solutions can then be used in proportion to the dry weight of material to be coloured. This avoids the possibility of 'over-kill' in which significant amounts of unabsorbed dye could be discarded into the drainage system.

You should experiment with varying amounts of stock solutions to produce samples showing a range of colour strengths. Combinations of solutions should also be used to demonstrate mastery of mixing techniques. In some cases different types of dye can also be mixed as in the union dyeing technique to dye mixed fibre yarn or fabric.

Techniques such as using levelling agents, experimenting with both cold and hot dyeing methods, and experimenting with different dyes on the same fibre will enable you to produce many shades. It might be interesting to do tests on some of the many different fibres that have become available to craft workers in recent years, to find out which types of dyes work with which fibre.

All dye vessels and equipment should be kept specifically for that purpose, always cleaned thoroughly and put away securely after use. Dyes and chemical assistants must be kept in a safe place, out of the reach of children. You should make yourself aware of health and safety regulations relating to the use of dyes and chemicals, including responsible disposal of waste solutions.

### **3.0 PROJECT PIECE**

You will be required to design and execute a project piece of your own choice, demonstrating the use of as many relevant techniques as you wish and which you consider will enhance the work. It should be a finished article such as a garment (shawl, jumper etc.) or any other item. It can be woven, knitted, crocheted, felted, or produced in any other way, including the use of commercial fabric. You should choose a method that will enhance your dyeing. If you submit more than one item the pieces must relate and match to form a set.

You must include a written description of all stages of the design development and of the dyeing, including details of all the materials used. You must show an understanding of the dyes and the suitability of the materials for the finished piece. Your notes should include design sources and include the samples you made leading up to the decision for your final choice. Ensure all your records are dated. You should describe the finishing process, such as setting, blocking and/or pressing as is relevant to your piece.

You may have your dyed material made up into the finished article by someone else, so long as this is clearly explained in your notes.

Your dyeing is the principal focus of the assessment.



## USEFUL ADDRESSES

### CoA Co-ordinator:

[certificate@wsd.org.uk](mailto:certificate@wsd.org.uk)

Heather Seddon, 15 Asby Road, Asby, Workington, Cumbria CA14 4RR  
01946 861515

**AGWSD website:** [www.wsd.org.uk](http://www.wsd.org.uk)

**Association Web Information Point:** details from your Guild secretary

## OTHER CoA DOCUMENTS THAT YOU WILL NEED

- **HANDBOOK**
- **REGISTRATION FORM**

This can be downloaded from the AGWSD website or the Association Web Information Point or can be requested from the Co-ordinator.

- **RESOURCE LIST**
- **LIST OF MENTORS**

These will be sent to you by the Co-ordinator when you have registered.