

# Arts

**How to dye with turmeric**

RecyCOOL Lessons

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# How to dye with turmeric

## Description

In this lesson you will dye garments with the use of turmeric. Learners will reflect their knowledge about natural and conventional dyeing. They will have an introduction of fibre classification and learn how to identify different materials.

This lesson needs a bit of preparation and shows a small version of how you can dye garments. If you want to delve deeper into working with natural colouring, please use the links in the end.

## Objective

Objective of this lesson is to experiment with natural resources to dye garments/materials.

## After this lesson you will be able to

- get a basic understanding of natural dyeing
- learn how to identify different types of material like cotton, wool and synthetic fibres

## Tools and materials

kurkuma, stainless steel pot, water, big wooden spoon or cooking spoon

Any garment or fabric used must be:

- light colour (preferably white)
- one item with 100% cotton (or 100% other natural fibre)
- one item with mixed fibres  
(ie. part synthetic like polyester and part cotton or natural fibre)
- washed before this lesson with an organic detergent, **NO** fabric softener

You may use a t-shirt or another similar garment, and you can also use scraps of fabric. To find out the material that the garment is made from, check the label inside the garment.

### **BARK:**

The hard outer covering of a tree.

### **CONES:**

The hard oval-shaped fruit of a type of evergreen tree.

### **WOAD:**

A European plant whose leaves can be used to make a blue dye.

### **ACACIA LEAFS:**

A tree from warm parts of the world that has small leaves and yellow or white flowers.

### **THISTLE:**

A wild plant with sharp points on the leaves and, typically, purple flowers.

### **LICHENS:**

A grey, green, or yellow plant-like organism that grows on rocks, walls, and trees.

Natural Dyeing is the process of using natural dyes that are extracted from natural sources, such as plants, minerals and insects. You can extract beautiful colours from leaves, flowers, bark, roots as well as rocks, fruits and veggies.

- **fruit and vegetable peelings**
- **fallen leaves, branches, cones, bark, nuts, lichens**
- **roots**
- **blossoms and berries**
- **turmeric and saffron**
- **dye plants such as camomile, woad, acacia leaf, thistle**

Photo credit: [Alpha Smoot](#)

**Have you ever dyed something yourself?**

**What are your experiences?**

**What did you dye and with what colour?**

**Do you know any special dyeing techniques?**

**Do you know any natural resources you can dye with?**

**Do you know something about the process and impact to our environment of conventional dyeing?**



# Fibre classification

When working with textile crafts and in particular natural dyes it's very important to know the difference between synthetic fibres and natural fibres.

All natural dyeing techniques will work beautifully for natural fibres but will not work for synthetic fibres.

It can take a long time to develop the skills to differentiate a silk from a silky polyester for example, or a wool yarn from an acrylic yarn. Fortunately, you can quickly and easily do a fabric burn test, which is a great way to quickly know what kind of fibre you are dealing with.

Synthetic fibres are not good when dyeing with natural dyes. There are two types of natural fibres:

**PROTEIN BASED FIBERS**  
**CELLULOSE BASED FIBERS**



# Protein based fibers:

**Sheep's wool**

**Mohair** (angora goat)

**Alpaca**

**Cashmere** (cashmere goat)

**Camel**

**Angora** (rabbit)

**Tussah silk** (from larvae of several species of silkworms)

**Cultivated silk** (from larvae of silkworms which only eats mulberry leaves)

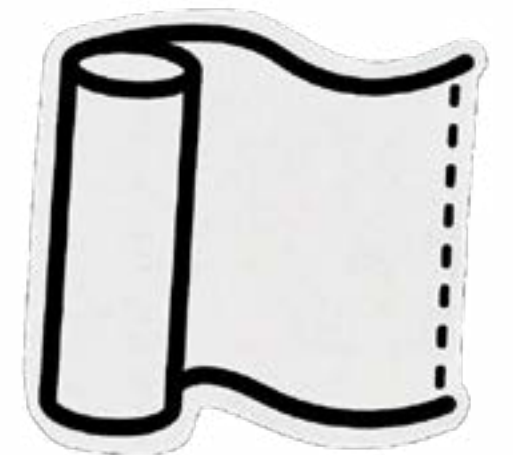
# Cellulose fibres:

**Cotton**

**Linen**

**Bamboo**

**Hemp**





# How to do a fabric burn test

**(Please perform this experiment only in attendance of an adult person)**

Grab a piece of your chosen fabric. Get a lighter or matches. You can also use a pair of tweezers to hold the fabric, I like to use my hands. Carefully light the match or lighter and hold it up against the edge of the fabric. How the fabric reacts will tell you what it's made from.

If you are burning polyester fabric you will see the fabric melting when it hits the flame. There is no ash, rather it melts into a plastic edge which is hard and not easy to break. This is always a sign that the fibre is **synthetic**.

When doing the same with cotton and linen, the fabric will burn fast and when removing the match the fabric will continue to burn. It will create ash and it will break away when touched. This is always a sign that the fiber is **natural**. 100% Wool will react in the same way.

Photo credit: [La Creative Mama](#)



# Task

For a smaller version of dyeing you need:

- 50-100g turmeric
- 300 g cotton or linen fabric
- 3-6l of water
- wooden spoon (if you like an old one)
- big old steel pot

You will dye two t-shirts with turmeric and see how the garment reacts to it.

This lesson is about to start the dyeing process. It will take longer than the lesson itself. In the end when you have the dyed garment please share the pictures and your reflection with the group.

Prepare everything to get ready for dying. We start with turmeric, because this is what you can easily buy at the supermarket. But there are many natural resources we can use for dying.



## We start with the dyeing process:

### • Staining the fabric

Staining helps the fibres absorb and hold the dye better.

Fill a large pot with at least three litres of water and 0.75 litres of vinegar. It is important that the fabric is completely covered by liquid. Water and vinegar are heated. It is important that it does not boil. Let the fabric soak for about an hour, then rinse well with clean water until there is no more smell of vinegar.

### • Dyeing

Fill the pot again with new water. It should not be too little, because the fabric should be completely covered by the water. Too much water, on the other hand, will reduce the intensity of the colour. If a very dark colour is to be achieved, a complete package of turmeric (50–100g) can be used. Boil the textiles for about an hour on low heat for an intense colour. The water should bubble slightly, but not boil too much. To ensure that the fabric is permanently covered by the dye water, you can place a plate in the pot on top of the fabric. Any heat-resistant object is suitable for this purpose. After an hour, the fabric is thoroughly washed out and hung to dry.



Photo credit: [Alpha Smoot](#)



# Reflection

After you took out both shirts, write down the differences of the colours.

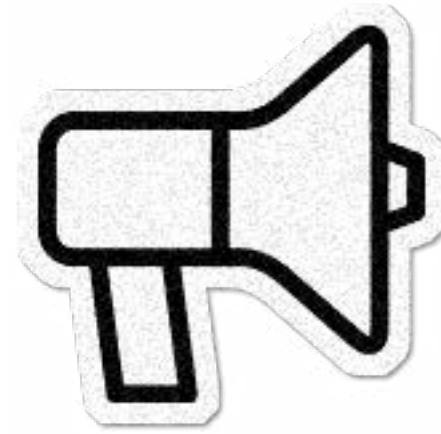
**Can you think of the reasons why there are differences?**

**Take a picture of each shirt.**

**How did you like colouring it with tumeric? Can you imagine trying other colours with other natural raw materials?**

As a suggestion: you can dye different pieces of fabric with different materials and then mark the results with notes of what was dyed with. so you can create your own colour protocol for further dyeing experiments.

Photo credit: [Alice & Lois](#)



A nice technique to play with different materials and colours is Bundle Dyeing.

[Here you can find a good tutorial.](#)

If you would like to explore more about natural and chemical dyeing, you can watch these movies and videos:

[Film River Blue](#)

[Film True Blues](#)

And if you would like to get more inspiration on natural dyeing, you can check these links/accounts:

[Kaliko](#)

[Stuart Moore Textiles](#)

[The Ultimate Guide to Natural Dyeing](#)  
by Victoria Martinez Azaro

# Resources

Website of Kaliko, 2023. Available at: <https://www.kaliko.co/>

Stuart Moore Textiles, 2023. Available at: <https://www.instagram.com/stuartmooretextiles/>

Victoria Martinez Azaro, The Ultimate Guide to Natural Dyeing, 2020. Available at: <https://lcreativemama.com/the-ultimate-guide-natural-dyeing/>

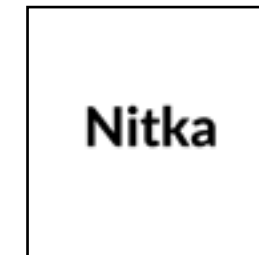
Mareike Brenner, Stoffe, Kleidung und Textilien färben – So geht das ganz natürlich!, 2020. Available at: <https://freshideen.com/diy-do-it-yourself/textilien-faerben-kleidung-faerben-stoff-faerben.html>

Cara Harstick, Färben mit Kurkuma – Alten Stoffen neues Leben einhauchen, 2023. Available at: <https://fairstrikt.org/faerben-mit-kurkuma-alten-stoffen-neues-leben-einhauchen/>

# Author

Julia Hermesmeyer, Fashion Revolution Germany

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