

Turmeric printing

Outdoor, Age 6 – 16, Cost per student in £– 0.20

Curriculum areas - Biology, Art, Food Tech, Photography, Chemistry

Turmeric photography like an anotype, bleaches the areas exposed to light but has the advantage that the paper can be prepared in a few minutes and exposures, in midsummer, can be less than 10 minutes (midwinter sun can be 6 hours!) making it an excellent for the start and end of a lesson. You can tell when there is sufficient exposure as the yellow on the paper has (mostly) faded. The chemistry used is *fairly* harmless (see the information below) and the whole process, from mixing the solution and coating the paper to 'toning' the final image, can be done by the students.

Materials:

- Cheap, glossy surfaced, Inkjet photo paper (NOT light sensitive photographic paper)
- Turmeric powder
- Isopropyl alcohol (or runny hand sanitiser!)
- Rubber gloves to avoid staining.
- A table cloth to avoid staining!
- A teaspoon
- A 'J cloth' for straining out the liquid
- 2 x jam jars (one for the turmeric liquid and one for the toner)
- 2 x paintbrushes (One with a yellow marker for coating the turmeric liquid onto the paper and one with a red marker for applying the toner)
- A clip frame (a 10 x 8 frame will accommodate three images)
- Some materials (flowers, leaves, acetate template, cut out card butterflies etc)
- Sodium Sesquicarbonate powder. (optional but so cheap £5 will last a lifetime)



Video [here](#) however, one addition to the video is to 'paint' the toner on rather than soak the image in a tray. This allows the photo to dry faster (and allows the next swarm of enthusiastic dudes to have their go!)

Potential pitfalls

Ink jet photo paper

Every house in the country has loads, unused due to the cost of printing ink. Weirdly some of the better quality papers don't work! This is down to the absorbency of the base paper as well as (possibly) the acidity of the papers surface. As with all lessons, **test the papers**

you have beforehand. Luckily the cheaper ink jet glossy papers seem to be the best.

Initials

Get the kids to write their initials on the back of the photo paper before they coat it.

Staining

Turmeric stains! Although not in any way harmful, it's probably not best practice to get it everywhere and to hold onto the jar when the paintbrush is being used.

Tilting the frame to get the sun (for faster exposure)

Works fine with glass clip frames but the safer plastic frames are more bendy which can result in the leaves etc falling off the paper. Best to keep them flat.

Health and Safety information.

Isopropyl alcohol

I use cleaning alcohol, a litre of which will cost £5 online and last a year. Be aware this is inflammable. Hand sanitiser works but can be a bit gluey.

A clip frame

Plastic frames are safer to use with smaller children however they aren't great at keeping the objects pressed firmly onto the paper. Best to reassemble the frames yourself.

Sodium Sesquicarbonate powder.

This can be bought under the trade name of 'Borax Substitute'. This is NOT Borax but a cleaning powder of the same ph. It is an alkali and, although very diluted, should be handled with appropriate care. It doesn't 'go off' so make up a waterproof jar of it to reuse.

Separate Paintbrushes.

Have some yellow (or with yellow tape) for painting on the turmeric mixture and some red for use with the 'toner'. Don't get these mixed up!!!!

Advanced

Templates.

As with Cyanotypes and Chlorophyll prints, acetate templates can be used either on their own or along with plants etc, whether to run alongside a project or to appease organisations who are employing you. Make sure you use the correct sheets so the photocopier doesn't gunge up with melted the plastic, (if it does,,,walk away slowly!). It is possible when there's a strong sun to use thin photocopied paper but the exposure times are longer.

UV beds.

These work but is out of the budget for many. If doing this project in the winter leave the frames out (under cover) until the next lesson.

