

SECTION 3

- TUTOR OK, Jim You wanted to see me about your textile design project
- JIM That's right I've been looking at how a range of natural dyes can be used to colour fabrics like cotton and wool
- TUTOR Why did you choose that topic?
- JIM Well, I got a lot of useful ideas from the museum, you know at that exhibition of textiles But I've always been interested in anything to do with colour Years ago, I went to a carpet shop with my parents when we were on holiday in Turkey, and I remember all the amazing colours Q21
- TUTOR They might not all have been natural dyes
- JIM Maybe not, but for the project I decided to follow it up And I found a great book about a botanic garden in California that specialises in plants used for dyes
- TUTOR OK So, in your project, you had to include a practical investigation
- JIM Yeah At first I couldn't decide on my variables I was going to just look at one type of fibre for example, like cotton
- TUTOR and see how different types of dyes affected it?
- JIM Yes Then I decided to include others as well so I looked at cotton and wool and nylon Q22
- TUTOR With just one type of dye?
- JIM Various types including some that weren't natural, for comparison
- TUTOR OK
- JIM: So, I did the experiments last week. I used some ready-made natural dyes, I found a website which supplied them they came in just a few days, but I also made some of my own
- TUTOR That must have taken quite a bit of time
- JIM: Yes, I'd thought it'd just be a matter of a teaspoon or so of dye and actually that wasn't the case at all. Like I was using one vegetable, beetroot for a red dye and I had to chop up a whole pile of it So it all took longer than I'd expected Q23
- TUTOR One possibility is to use food colourings
- JIM I did use one. That was a yellow dye an artificial one
- TUTOR Tartrazine?
- JIM Yeah I used it on cotton first It came out a great colour but when I rinsed the material the colour just washed away I'd been going to try it out on nylon, but I abandoned that idea Q24
- TUTOR: Were you worried about health issues?
- JIM I'd thought 'it's a legal food colouring it must be safe
- TUTOR: Well, it can occasionally cause allergic reactions, I believe
- TUTOR So what natural dyes did you look at?
- JIM Well, one was turmeric The colour's great, it's a really strong yellow It's generally used in dishes like curry
- TUTOR It's meant to be quite good for your health when eaten, but you might find it's not permanent when it's used as a dye – a few washes and it's gone Q25
- JIM Right. I used beetroot as a dye for wool. When I chop up beetroot to eat I always end up with bright red hands but the wool ended up just a sort of watery cream shade Disappointing Q26
- TUTOR There's a natural dye called Tyrian purple Have you heard of that?
- JIM Yes It comes from a shellfish, and it was worn in ancient times but only by important people as it was so rare I didn't use it Q27
- TUTOR: It fell out of use centuries ago though one researcher managed to get hold of some recently But that shade of purple can be produced by chemical dyes nowadays Did you use any black dyes?

Test 3

JIM Logwood. That was quite complicated I had to prepare the fabric so the dye would take.

TUTOR I hope you were careful to wear gloves

JIM Yes. I know the danger with that dye.

TUTOR Good. It can be extremely dangerous if it's ingested. Now, presumably you had a look at an insect-based dye? Like cochineal, for example? Q28

JIM Yes. I didn't actually make that, I didn't have time to start crushing up insects to get the red colour and anyway they're not available here, but I managed to get the dye quite easily from a website But it cost a fortune. I can see why it's generally just used in cooking, and in small quantities Q29

TUTOR Yes, it's very effective, but that's precisely why it's not used as a dye.

JIM I also read about using metal oxide. Apparently you can allow iron to rust while it's in contact with the fabric, and that colours it

TUTOR Yes, that works well for dying cotton But you have to be careful as the metal can actually affect the fabric and so you can't expect to get a lot of wear out of fabrics treated in this way And the colours are quite subtle, not everyone likes them Q30

Anyway, it looks as if you've done a lot of work .