

There are 2 different lesson plans for this workshop. Please see options 1 and 2 below, we will be happy to help you decide which would be most suitable for your class. Just give us a ring!

How Green is this Product? – Option 1

Workshop description:

Students are introduced to sustainable design through the use of a product case study. Students have to establish the ingredients and materials used to manufacture the highlighted product. Students are then asked to make sustainable decisions as to where the materials/ingredients are sourced from and transported to for processing and production. Through the activity students begin to recognise the global footprint of an everyday product and consider its sustainability. Students are asked to consider alternative options for the product so as to increase its sustainability and reduce its environmental impact.

Summary of workshop:

- Introduction to sustainable/non-sustainable product examples.
- Hands on activity for students to consider the implications of sustainable/non-sustainable design.
- Summary of key points.

Time: 45 minutes

Number of students: ~30 (divided into groups)

Suitable for years: 8 - 13

Misconceptions:

- That our levels of consumption in the UK do not affect the rest of the world.
- That natural products inherently have a low environmental impact.

Learning outcomes:

By the end of the workshop pupils should be able to:

- Recognise factors which contribute to unsustainable design.
- Explain what is meant by an eco-footprint.
- Recognise ways in which a designer can reduce the eco-footprint of a product.

Vocabulary:

- Eco-footprint
- Sustainability
- Non-renewable resources / fossil fuels
- Renewable resources
- Water footprint

Resources: (all supplied by SWAP)

- Laptop / projector
- Flashcards / world maps / worksheets
- Product examples

Duration

5 mins.
10 mins.
5 mins.
20 mins.
5 mins.

Teaching and Learning activities:

- Introduction to workshop
- Powerpoint presentation introducing sustainable/non-sustainable product examples.
- Explanation of main task – eco-footprinting an everyday product.
- In groups students undertake the main task.
- Review completed task as a class and discuss main findings.

How Green is this Product – Option 2

Workshop description:

In this highly interactive workshop students discuss the whole life-cycle of a product and how the choices made by designers can have wide-reaching consequences for the environment.

Summary of workshop:

- Card matching starter activity.
- Presentation on what “sustainability” means.
- Life-cycle analysis.
- Product comparisons; high vs low impact.

Time: 1 hour

Number of students: 12-30

Suitable for years: 9-13

Misconceptions:

- That natural products inherently have a low environmental impact.
- That the transportation of a product is its main environmental impact.

Learning outcomes

By the end of the workshop pupils should be able to:

- Ask a question about a product to find out how sustainable it is.
- Explain the different stages of a product’s life-cycle.
- Suggest at least one way that a product could be made more sustainable.

Vocabulary: Sustainable, unsustainable, life-cycle analysis, carbon footprint

Resources: (All supplied by SWAP unless stated otherwise.)

Question and picture cards to match up.

Projector and laptop **or memory stick if the school has the necessary ICT system in place.**

Objects to analyse.

Life-cycle worksheets.

Product comparison flow chart cards and sticky sheet.

Duration

Teaching and Learning activities:

2 mins

Introduce myself, SWAP and what we will be doing in this workshop.

3 mins

Students work in groups to match products with relevant questions such as “Is this made of organic cotton?”

8 mins

Go through answers, considering which answer would be preferable and why.

7 mins

Presentation to explain what is meant by the term “sustainability”, using cod as an example.

15 mins

Each group looks at a different product and analyses its life-cycle.

5 mins

Group feedback.

5 mins

Show students an example of how a design brief can be met by products with different environmental impacts. Each group produces a flow chart outlining some of the environmental impacts of a product. The flow charts are put up on the wall next to each other.

10 mins

The products are compared to show students how similar products can have either a low or high environmental impact.

5 mins

Summarise what they have learnt.