Teacher's notes

Global and cultural issues of design

Objectives
- To think about global and cultural issues of design and how this affects the user
- To consider where materials come from
- To identify how environmentally-friendly products are and what happens to them at the end of their life cycle

Prior knowledge
Students need to understand what is meant by the 3Rs (reduce, reuse and recycle) and how these affect the products that we use.

NC links
Key concepts: 1.1 Designing and making; 1.4 Critical evaluation
Key processes: d
Range and content: a, c, d, e, l
Curriculum opportunities: a, b

Northern Ireland PoS
Designing: g

Scottish attainment targets
Resources and how they are managed: Level C
Developing information attitudes: Social and environmental responsibility

Welsh PoS
Skills: Designing: 8

Background
This unit will enable students to explore different issues that affect the world we live in, in order to develop their awareness of different users. This ranges from the environmental effects of old products, an understanding of other cultures and where materials come from. This unit explores the needs of different cultures through the identification of what we call 'everyday items' and how other cultures could see them as luxury items.

Starter activity
Discuss with students their knowledge of the 3Rs, how often they themselves recycle, what sort of products could be reused and the amount of packaging that’s used. Ask students what they consider to be essential products that they cannot live without but that they might be taking for granted, such as products that developing countries may not have access to.

Resource sheets and Activity sheets
The Resource sheet, ‘Designing environmentally-friendly products’, should be used to prompt students to think about the environmental implications of a product when designing. This Resource sheet can then be used in relation to any of the Activity sheets in this unit.

The Activity sheet, ‘How culture affects the design process’, asks students to study two houses from different parts of the world. The houses have been designed using local materials and to meet the needs of those living in a particular country. Students should be encouraged to consider how effective each house design is, their differences and similarities and why that is.

Using the Activity sheet, ‘Where does food come from?’, students will look at the packaging of their favourite food item or some general food packaging in relation to where the food was produced and if the packaging can be recycled.

The Activity sheet, ‘What are product materials made from?’, requires students to consider a range of products, where the materials they are made of have come from and whether the material is renewable or not.

Using the Activity sheet, ‘Sustainability’, students are to investigate the sustainability of products they themselves or their family purchase and replace. Students are then encouraged to design a sculpture using old electrical products to advertise and encourage recycling.

Plenary
Ask students to talk about items that they themselves have recycled, and how, and in what ways, other items could be recycled. Students could also talk about unsustainable materials and what will happen once they are no longer available.

Resource sheet – Global and cultural issues of design

Designing environmentally-friendly products
To help you design environmentally-friendly products use the spinner below. Cut it out, stick it onto card and insert a pencil into the centre. Spin the spinner twice and consider the two points it lands on. How might you design your product?
Activity sheet – Global and cultural issues of design

How culture affects the design process

The two houses below are from different parts of the world. They have been designed using local materials and to meet the needs of those living in a particular country.

☞ Study the two houses and answer the questions below in the boxes provided.

a What are the differences between the two houses?

b What are the similarities between the two houses?

c How have the houses been designed to meet the needs of the people that live in them?
**Activity sheet – Global and cultural issues of design**

**What materials are products made from?**

1. Draw an arrow from each of the following products on the left-hand side to match them to the raw material they are made from shown on the right-hand side. The first one has been done to help you.

<table>
<thead>
<tr>
<th>Product</th>
<th>Raw material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spoon</td>
<td>Tree</td>
</tr>
<tr>
<td>Shirt</td>
<td>Oil rig</td>
</tr>
<tr>
<td>Breakfast cereal</td>
<td>Mining</td>
</tr>
<tr>
<td>Wooden table</td>
<td>Cotton</td>
</tr>
<tr>
<td>Washing-up liquid bottle</td>
<td>Wheat</td>
</tr>
</tbody>
</table>

2. Which of the products are made from renewable resources? Discuss with a partner which products you use. Which are made from renewable resources? Which are not?

**Sustainability**

Every year people in Britain throw away over one million tonnes of electrical waste. Sustainability is about living within our means and using the resources we have wisely.

1. In the box below list all of the new electrical products that you or your family have bought so far this year.

2. In the box below write down if the new products were bought to replace old products. Note down if the old ones were thrown away.

3. In the box below design a sculpture made from old electrical products, such as televisions, washing machines, and so on, to encourage or advertise recycling.