

# Education for Sustainable Development:

## Embedding Sustainability into Graduate Attributes and the Student Experience

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# Education for Sustainable Development

- **United Nations Decade for Education for Sustainable Development**  
‘integrate the principles, values and practices of sustainable development into all aspects of education and learning, and all areas of life including communities, the workplace and society in general ’ (UNESCO, 2004)
- **Scottish Executive’s response to the UNs Decade of Education for Sustainable Development:-**  
‘an important aim is to give people the knowledge, understanding, skills and values to live sustainable lives by fully integrating sustainable development into all stages of the formal education system’ (Scottish Executive, 2006)
- **What is Education for Sustainable Development?**  
‘sustainable development education is the process of acquiring the knowledge, skills and attitudes needed to build local and global societies that are just, equitable and living within the environmental limits of our planet, both now and in the future’ (SDE Network, 2008)

# Progress of Education for Sustainable Development

- Obvious curriculum areas where sustainability is already embedded, Environmental Science and Geography
- Challenge for courses where sustainability is less obvious:
  - Staff perceptions of where sustainability fits and reluctance to engage with the subject (Jones, *et al.*, 2008)
  - Creative thinking to encourage behavioural change (Roberts & Roberts, 2007)
- Scottish Government (2010) - concerns:
  - Progress made by Estates Departments but sustainability still not incorporated within curriculum
  - Urgent need to raise awareness of the impacts of carbon intensive practises

# Hairdressing Heroes: Fighting the Carbon Battle

- **Life cycle analysis**
- Ecological and carbon footprints
- Hairdressing products
- **Energy consumption**
- Water consumption
- Waste
- Buildings
- Transport
- **Food**



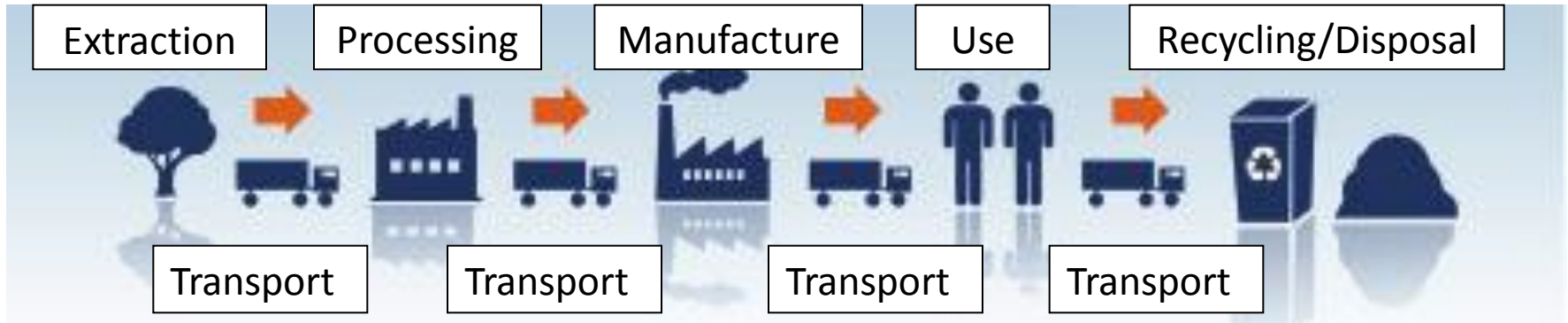
Available Resource

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1 Planet Only!

**Overall aim: any curriculum area**

# Workbook: Life Cycle Analysis



## Case study: Scissors



- What are they made from?
- How are they made? What energy is used to make them?
- How do the scissors get to the salon from where they are made?
- How long are they used for?
- What happens to the scissors when their useful life is over?



**Waste Aware Scotland**  
Reduce Reuse Recycle towards zero waste



# Workbook: Energy Consumption

Hairdryer	Number in salon	Total watts [W]	Hours on per year [hrs/year]	Kilowatt hours per year [kWh/year]
<b>Turbodryer 2000</b> (1500W - usage = 2 hrs/day)	14	1500 x 14 = 21,000 watts	2 hours x 200 days = 400 hours	21,000 watts x 400 hours = 8,400,000 watt hours ÷ 1000 = 8400 kWh/year
<b>Babyliss Eco Dry (1000W – usage = 2 hrs / day)</b>				
	<b>Savings</b>		<b>Savings</b>	



**Hint:** (watts x hours per year) ÷ 1000 = kilowatt hours per year  
**Remember:** there are 200 college days in a year

# Workbook: Food

Choose your favourite meal, for example burger and chips



Record here what you think some of the environmental impacts of your meal could be:

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- 
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# **Progress to Date**

## **Hairdressing**

- Introductory presentations to both Higher level classes
- Workbook rolled out to hairdressing students to work on in directed study
- Follow up with students and introductory presentation amended

## **Other Curriculum Areas**

- Construction workbook with staff to use either directly with students or as a resource for ideas
- Workbooks nearing completion for Beauty and Health and Social Studies students
- Sustainability projects being undertaken incorporating enterprise
- Utilising Student Association activities to further emphasise sustainability message



## Conclusion

- ESD should be subject specific wherever possible
- As important as any other core skill including employability
- Link to concepts staff are already familiar and happy with
- Extra curricula activities should not be overlooked as they reinforce the message

# Reference List

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