Exmouth Community College
Academy Trust

Sustainability:

DEFINITION

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
(Source : the Brundtland Commission of the United Nations)

A condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity *(Source : John Morelli, Environmental Sustainability: A Definition for Environmental Professionals)*

A is for **Aesthetics**
C is for **Cost**
C is for **Customer**
E is for **Environment**
S is for **Size**
S is for **Safety**
F is for **Function**
M is for **Material**

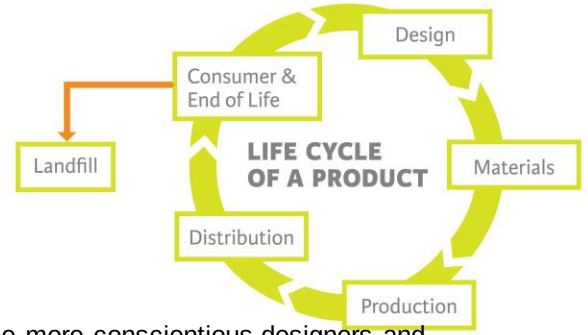
Product analysis: an in depth look at a product using the ACCESSFM headings to help us understand and evaluate the products key features.

Designers use product analysis to inform their design decisions, to get ideas, to see what existing products are on the market and to improve upon them.

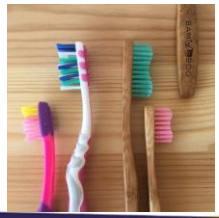
Research is important in product design. We need to understand the client's needs and wishes for a product so that we can meet them in our designs.
Primary research is first hand experiences and date gathering such as a survey.
Secondary research is using existing sources such as creating a mood-board from someone else's images, books, internet etc.

Sustainable Design.

When designing a product it's important to consider it's 'life cycle' alongside the 6R's. What happens to the product from initial design idea through manufacture, use and finally it's end of use. This is called a product lifecycle.



As we become more conscientious designers and consumers (users) we pay greater attention to the environmental impact of the products we buy and use. Often this means we buy less, buy organic or sustainable materials, avoid plastic products or look for alternative more environmentally friendly options. Think about the products you have at home and their impact on the environment using the lifecycle. What alternatives could you use/buy instead?



The 6 R's of sustainable design.

How does each affect your design choices?
Can you recycle your product after use?
Can you choose a different material?
Perhaps something made from recycled products.
Can you reduce waste in the manufacture of the product?

[What is sustainable development? - Bing video]
[Sustainability explained (explainity® explainer video) - Bing video]

Key Words:
.Sustainability
Reduce
Re-Use
Recycle
Research
Product analysis
Design
Solder
Circuit board
Specification

Year 7 – Design Technology / Sustainability & Lighting