

# Year 7 Responsible Design Brief

Design Brief: You have been approached by a local company called Remap who design and manufacture products for people with a range of disabilities. Use the information on the slides to help you complete this mini project.

Design a chair for a hospital waiting area.

How can you include people with disabilities, the elderly and responsible designing into your product?

Design Specification:

- It must be inspired by nature.
- The chair must be easy to move.
- It must have minimal impact on the environment.
- It must clearly show the links to nature.



- The project must include:
- Page 1 A moodboard which could include a collection of images of nature that inspire you, existing chairs or products designed to help people with disabilities and the elderly.
- Page 2 and 3 a range of creative design ideas at least 8 ideas with annotation, annotation should include dimensions (sizes) and materials.
- Page 4 A 3D drawing of your final design with reasons for your choice.



# Responsible design

**What factors should be considered by responsible designers and manufacturers?**



# Responsible design

Considerations include:

- Production techniques that may use non-renewable energy
- Toxic by-products created in manufacture
- Environmental impact of mining or harvesting
- The product itself or production processes may emit CO<sub>2</sub>
- Powering a product may require non-renewable energy
- Transportation and distribution distance
- Maintenance and repair costs
- Welfare of workers in the material supply chain
- Recyclability at the end of a product's lifetime



# Design specifically for the disabled

New materials have enabled new designs of prostheses to be developed

- Body scanners and 3D printing technology can make more comfortable, customised sockets
- Lightweight and flexible materials can improve shock absorbency and freedom of movement



**MARVEL**



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Disney  
**FROZEN**



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**STAR  
WARS**



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Pending FDA Clearance

# Responsible design

Designs may be developed to be easily used by the elderly or disabled

- Pedestrian crossings have been designed using audible beeps and bright colours for the partially sighted
- They are positioned within easy reach of wheelchairs
- How are buses designed to avoid a negative impact on elderly or disabled users?



# Inspiration













