

EXPEDITION HIDE

DESIGN CHALLENGE

DESIGN BRIEF:

You work for an outdoor design solutions company. The BBC has asked you to design a new overnight shelter (or 'hide') for the camera crew working on the next series of David Attenborough's *'Seven Worlds, One Planet'* documentary (because the previous ones didn't survive filming the first series!).

They will need different types of shelters for different filming locations around the world, but you only need to design **ONE** type of shelter (but considering the conditions of your chosen location).

You will need to consider the following:

- Weather conditions of the filming location
- How to keep (potentially dangerous) wildlife out of the shelter whilst the crew sleep
- Storage or usage of filming equipment

WATCH THIS VIDEO, TO UNDERSTAND THE DESIGN PROBLEM:



<https://www.youtube.com/watch?v=hNsB-ttjlzw>

WEEK 1

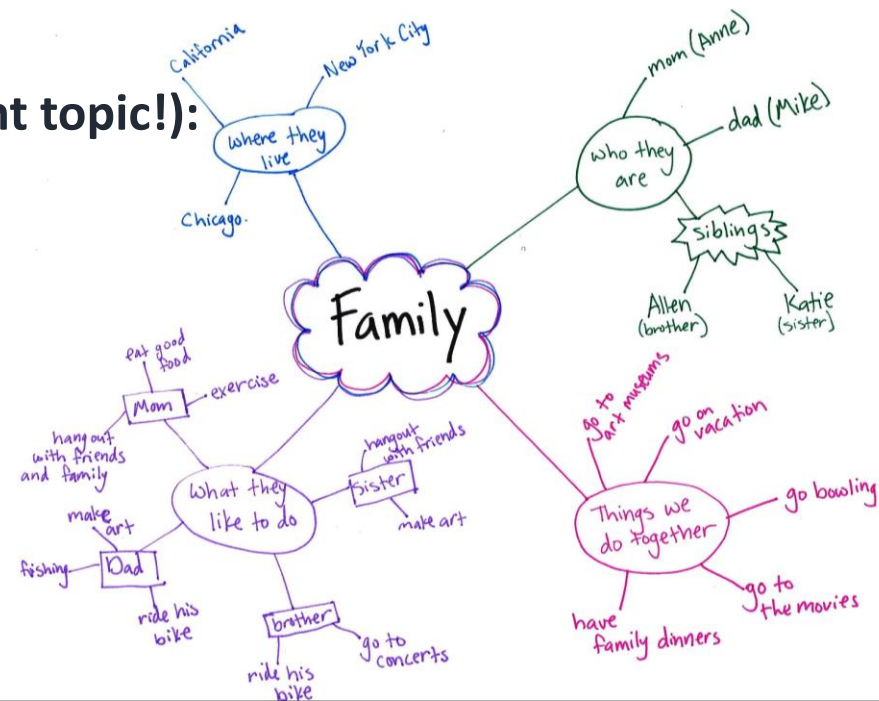
TASK 1: BRAINSTORM/MIND MAP

First, to help you with your research, brainstorm key words in response to the brief (you may wish to do this as a mind map, but you don't have to!).

For example: Function → **Protect**

Remember to consider the function and context of the product when brainstorming.

Example of a mind map (but on a different topic!):



Suggested Time Frame: 20 - 30 mins

TASK 2: MOOD BOARD

Create a mood board of research images, to help inspire your design.

Look at images that help you think about:

- The product's function
- The context that the product will be in (re-read the brief)
- What the product will need to look like (form)
- How the form could *improve* its function
- The product's user (i.e. the camera crew member/s)

Suggested Time Frame: 30 - 60 mins

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MOOD BOARD TIPS!

What makes a good mood board?

For everyone:

- Look for images on the internet/in magazines – **BUT** don't just take the first image from Google Images! Look for longer... find more unusual images.
- Good quality images (not blurry/pixelated)
- Big images (not so tiny that you can't see what's going on in the image)
- Page filled with different images
- Images can overlap, as long as can still see what we're looking at in image

For those wanting to push themselves further:

- Highlight an initial colour palette, based on your research images – **why is this important for the product's function/context?**
- Using your research images, you could also highlight what kind of materials could be used
- Don't just look at similar products – think about products with **functional properties** you could borrow based on your function key words (e.g. for *protect*, what other products/objects protect that could inspire you?)

WEEK 2

TASK 3: PRODUCT ANALYSIS

Choose **3 existing** products to analyse in detail, to help you start to think about what your product will need. You may wish to note this in a table (see next slide), but this is not essential.

You will need to **compare** the following aspects of these products:

1. **Form/appearance** (Why does it look the way that it does? Is there a functional reason for this?)
2. **Function** (How is it supposed to work? How does it do this?)
3. **User requirements** (What the user needs the product to do)
4. **Materials** (What it's made of)
5. **Cost** (How much is it? Why do you think that is?)

Suggested Time Frame: 60 mins

EXAMPLE OF PRODUCT ANALYSIS

	Form/ Appearance	Function	User requirements	Materials	Cost
[Product 1] (Image)	[Write about it in these boxes... can be in bullet points]				
[Product 2] (Image)					
[Product 3] (Image)					

WEEK 3

TASK 4: PRODUCT SPECIFICATION

Now that you have completed your analysis of existing products, you will write down what **your** product will need to include. This will help you with your design ideas.

Include the following points:

1. **Form/appearance** (Why does it look the way that it does? Is there a functional reason for this?)
2. **Function** (How is it supposed to work? How does it do this?)
3. **User requirements** (What the user needs the product to do)
4. **Materials** (What it's made of)
5. **Cost** (How much is it? Why do you think that is?)

For those wanting to push themselves further:

6. **Sustainability** (Are the materials environmentally friendly, and in what way? Why does that material need to be sustainable?)

Suggested Time Frame: 40 - 60 mins

EXAMPLE OF PRODUCT SPECIFICATION

Form/ Appearance	Function	User requirements	Materials	Cost	Sustainability
[Your Thoughts!]	[Your Thoughts!]	[Your Thoughts!]	[Your Thoughts!]	[Your Thoughts!]	[Your Thoughts!]

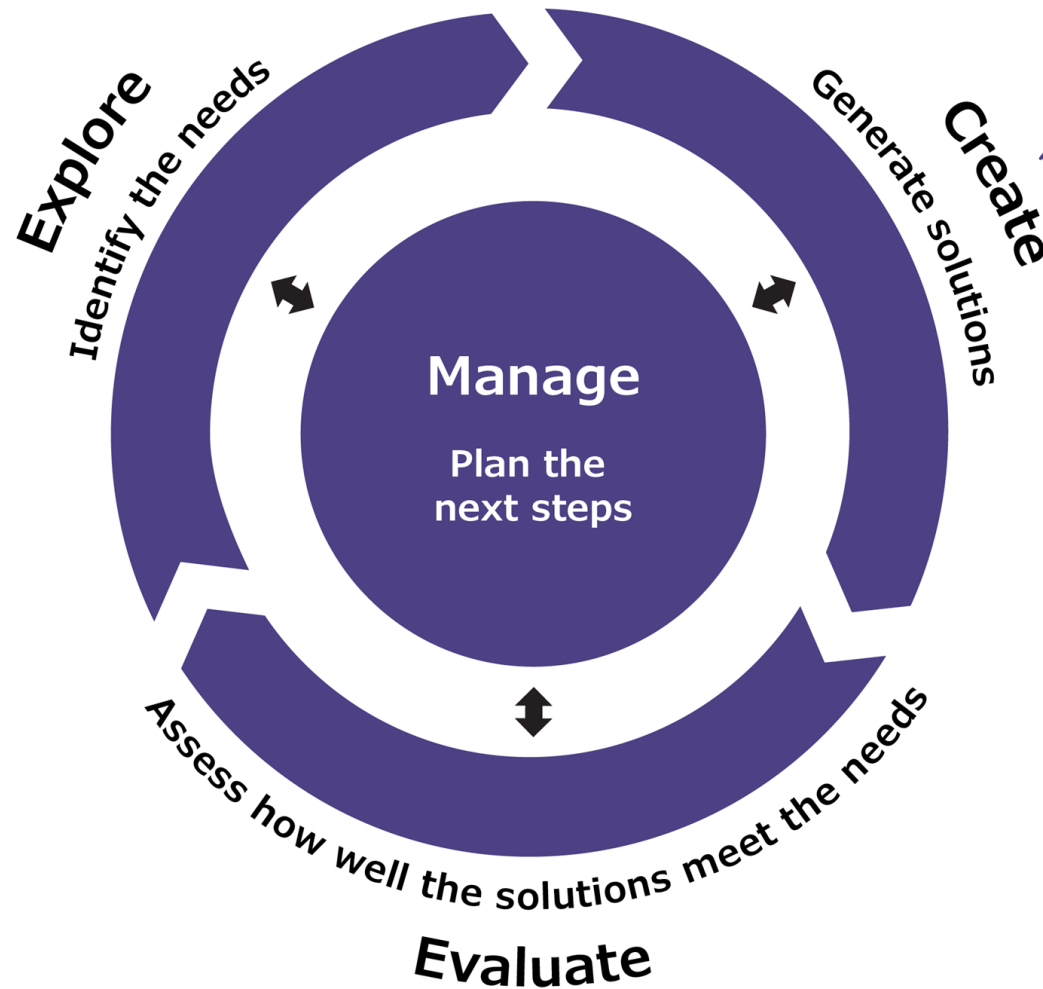
WEEK 4

TASK 4: DESIGN IDEAS

1. Draw 3 - 4 completely different design ideas for your shelter/hide.
2. Make sure you have annotated (labelled) all the important information from your Product Specification and the Design Brief (e.g. remember to talk about context/function/materials, etc. in your annotations).
3. Then, get someone to give you feedback! (get them to write this in a different colour pen if possible)
4. After you have received feedback on your design ideas, make any improvements/incorporate this feedback into your next idea (make sure you label what you have improved)
5. Try to do at least one more version, with improvements clearly labelled, of each idea before moving on. This is called an iterative design process (see next slide)

Suggested Time Frame: 60 - 90 mins

The Iterative Design Process



Focus on generating ideas that address the needs that have been identified

WEEK 5

TASK 5: FINAL IDEA

Choose your most successful idea, and draw an improved version of this (make sure you label any improvements/how it is different from the last idea).

Make sure your final idea fills a whole A4 page, and that it is coloured in.

Most importantly, make sure you've annotated all the features of your design (taking into account everything that was asked for on the brief).

Suggested Time Frame: 30 - 60 mins

WEEK 6

TASK 6: MODELLING OF FINAL DESIGN IDEA

Now that you have finalised your design idea, it's time to create a prototype! This is just the very first model (in an iterative design process), so it doesn't need to look perfect!

Suggestions for materials for this model:

- Empty toilet roll tubes
- Empty plastic bottles
- Cardboard Boxes
- Bed Sheets (see following slides for some ideas)

Just remember to take a photo before you dismantle it!

Things to consider when modelling:

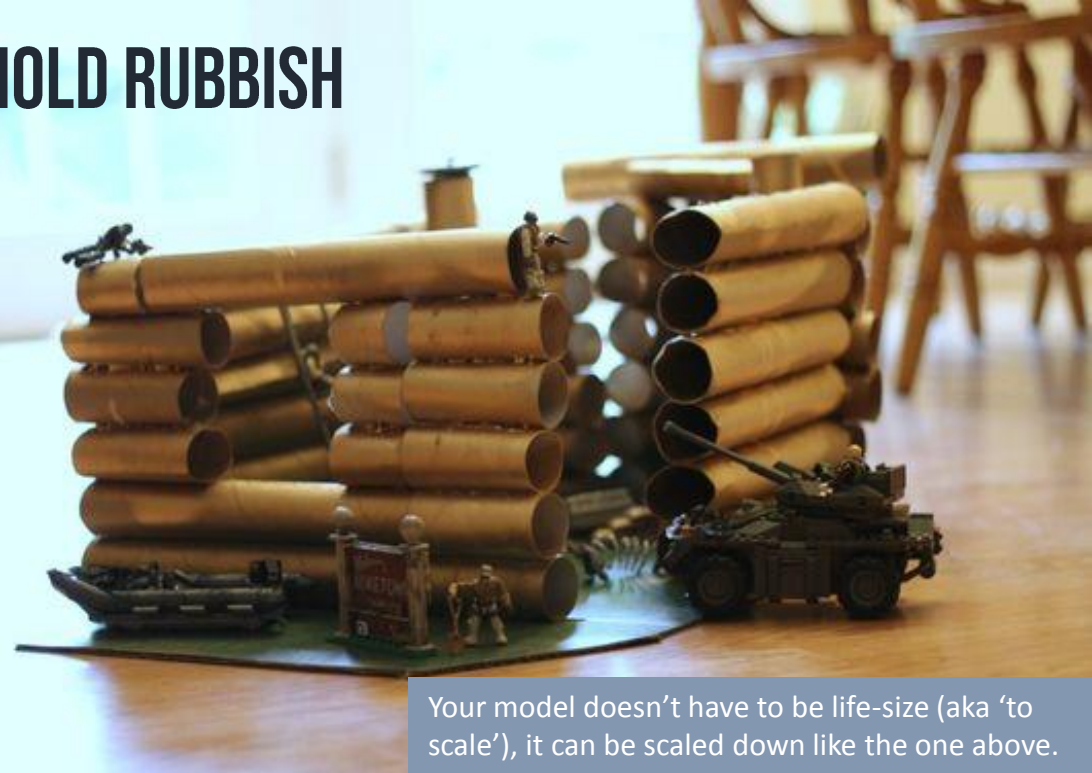
- Scale of model - is it life-size ('to scale'), or is it much smaller (scaled down)?
- Can you get the people around you involved with this model? e.g. family members

Suggested Time Frame: Minimum 30 mins (but have some fun with it if you want to!)

IDEAS FOR 'UPCYCLING' HOUSEHOLD RUBBISH

Upcycle =

To reuse discarded objects or materials in such a way as to create a product of higher quality or value than the original.



Your model doesn't have to be life-size (aka 'to scale'), it can be scaled down like the one above.



IDEAS FOR SHEETS/TABLES/CARDBOARD BOXES



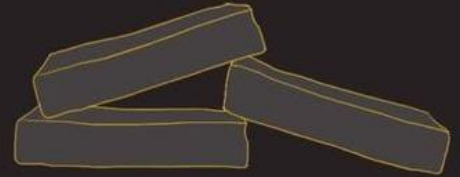
SHEETS OR BLANKETS X3



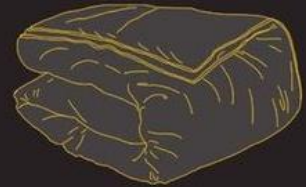
PILLOWS



SOFA CUSHIONS



COMFORTER OR SLEEPING BAG



COUCH, CHAIRS, OR BED



SAFETY PINS, CLOTHES PINS OR RUBBER BANDS



BROOM STICK

