YEAR 7

EXPEDITION HIDE

DESIGN CHALLENGE

WEEK 1

DESIGN BRIEF:

You work for an outdoor design 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!).

The BBC needs different types of **temporary** shelters for different filming locations, but you only need to design a temporary shelter for **ONE** location of your choice.

WATCH THIS 5 MINUTE VIDEO, TO UNDERSTAND THE DESIGN PROBLEM:

If the above doesn't work, please follow this link: https://www.youtube.com/watch?v=hNsB-ttjIzw

DESIGN BRIEF TIPS!

You will need to consider the following things:

- **Weather conditions of the filming location**
    Which continent is your shelter for, and what will the weather be like there? How will your design be adapted to those conditions?
    E.g. The rainforest presents very different problems to the desert!

- **Keeping things OUT!**
    How will your design keep (potentially dangerous) wildlife out of the shelter? E.g. The snake in the video, or something much bigger…

- **Storage AND/OR usage of filming equipment**
    Where in the shelter will they put their camera? Does the design need to be adapted to allow the camera crew to film *from* the 'hide' itself? E.g. A window

- **The shelter is temporary!**
    What is it made from? How can it be packed away and taken to the next place?

TASK 1: BRAINSTORM/MIND MAP

First, to help you with your research, try to brainstorm a few **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** ➔ *Key Word* = **Protect**

Remember to consider the product's **function** (i.e. <u>what</u> the product is used for) and its **context** (i.e. <u>where</u> it will be used) when brainstorming.
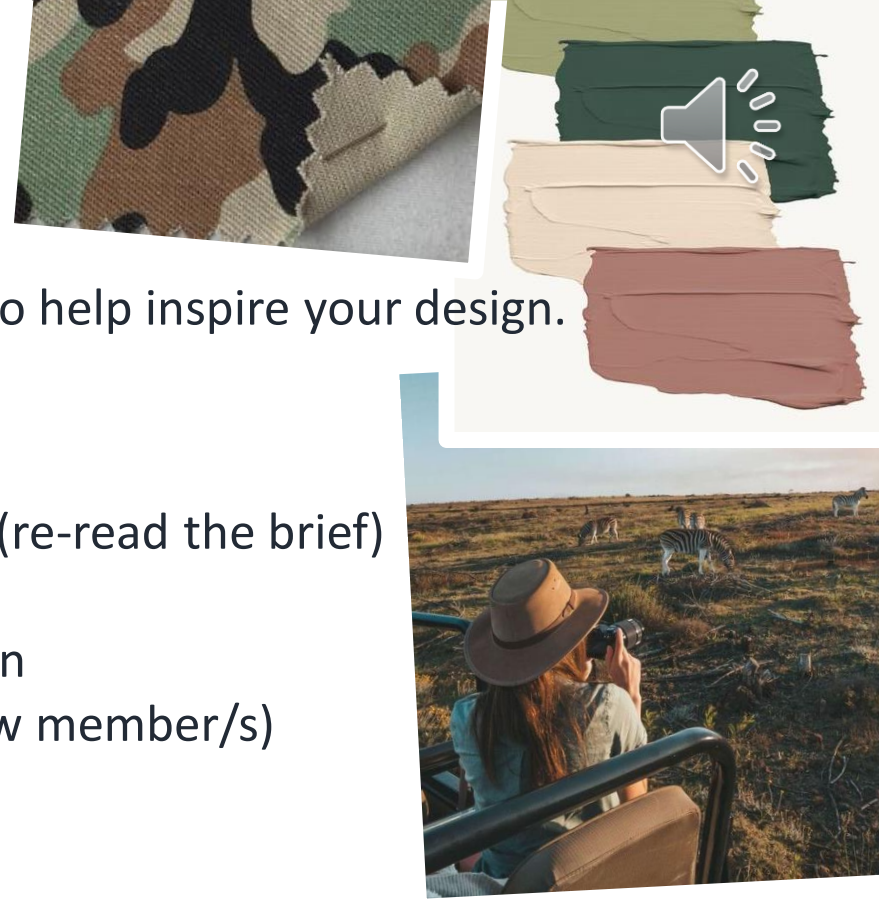
Example of a mind map (but on a different topic!):
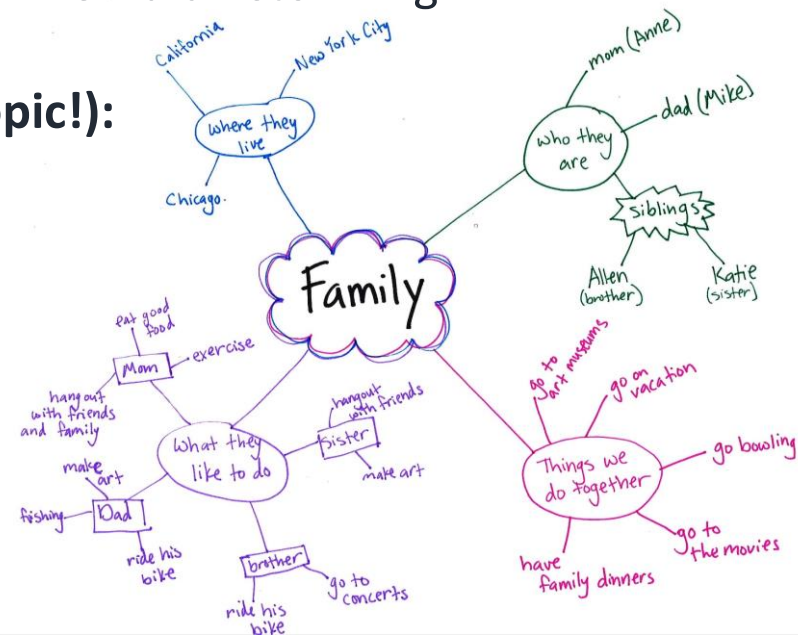
Suggested Time Frame: 30 mins

WEEK 2

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
- How the form could *improve* its function
- The product's **user** (i.e. the camera crew member/s)

"A mood board is a bit like a collage, it has lots of pictures on it that you found when doing research, which work together to communicate the overall idea (or 'mood') behind the project. This then helps you to come up with some ideas later on…" (Miss Dunn, 2020)

Suggested Time Frame: 30 mins - 1 hr

MOOD BOARD TIPS!

What makes a good mood board?

For everyone:
- Look for images on the internet or in magazines – **BUT** don't just take the first image from Google Images! Look for longer… find more <u>unusual</u> 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 <u>different</u> images
- Images can overlap, as long as we 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?** E.g. Could you think about camouflage?
- Using your research images, you could also highlight what kind of <u>materials</u> could be used
- Don't just look at similar products – think about products with **<u>functional properties</u>** you could borrow based on your function key words (e.g. for *protect*, what other products/objects protect that could inspire you?)

WEEK 3

TASK 3: PRODUCT SPECIFICATION

This is just a fancy name for a document that says exactly what your product needs to include, before you start designing it...

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)

For those wanting to push themselves further:

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

Suggested Time Frame: 30 - 40 mins

EXAMPLE OF PRODUCT SPECIFICATION

| Form/ Appearance	Function	User requirements	Materials	Sustainability (optional)
[Your Thoughts!]	[Your Thoughts!]	[Your Thoughts!]	[Your Thoughts!]	[Your Thoughts!]

WEEK 4

TASK 4: INITIAL DESIGN IDEA

PART A - **Suggested Time Frame:** 30 mins

1. Draw **ONE** design idea for your shelter/hide. Please **colour** it in, looking at your **mood board** to inform your colour choices.

2. This idea must be informed by your **Product Specification** (i.e. you must look at your Product Specification, and take its information into account when designing).

3. Make sure you have annotated (labelled) all the important information from your **Product Specification** and the **original Design Brief** (e.g. remember to talk about context/function/materials, etc.).
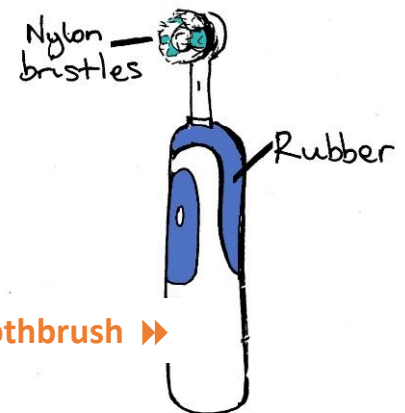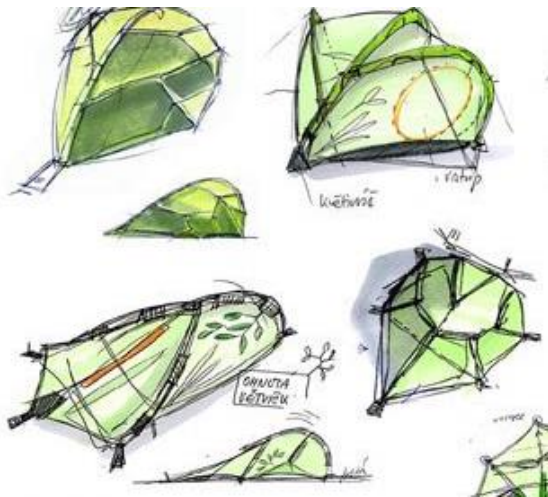
E.g. Here's an annotated drawing of a toothbrush ▶▶

Nylon bristles

Rubber

NEXT PAGE ▶▶ PARTS B & C OF TASK

TASK 4: INITIAL DESIGN IDEA (CONTINUED)

PART B - **Suggested Time Frame:** 5 mins

4.   Then, **if possible**, get someone at home to give you **feedback** (also ask them to write this in a different colour pen, again, if possible).

5.   If it isn't possible for someone *else* to give you feedback, try and think for yourself **how you could improve this design** (make sure you look at your Product Specification to see what's missing!)

PART C - **Suggested Time Frame:** 25 mins

6.   After you have received feedback on your design idea, **make any improvements** to your design. You can choose whether you will just add these improvements to your existing drawing, or whether you would prefer to redraw this design so that the improvements are included in the new version (make sure you label what you have improved, preferably in another colour pen).

Did you know?

Real designers never use their first idea! They do designs **over and over again**, until they're **just right**, because even brilliant ideas can be improved… This is called an *'iterative design process'* (you will learn more about this in Year 8).

But for now, maybe just try and remember Goldilocks… the first thing she tried was never right! *You may also remember that each product was specifically suited its user's needs…*
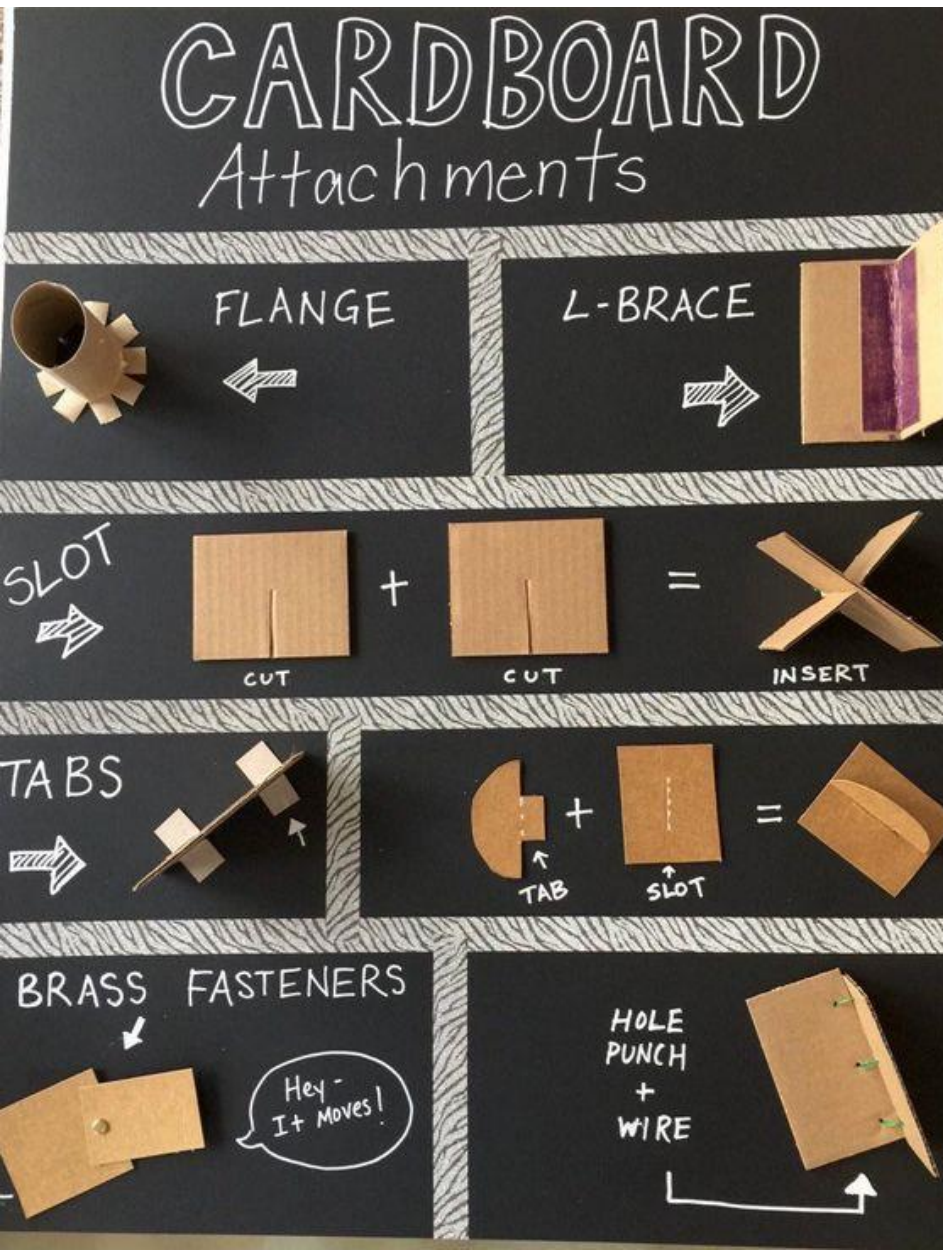

too hard   too soft   just right

WEEK 5

TASK 5: FURTHER DESIGN IDEAS

1. Last week you drew a design idea for your shelter/hide. Now you are going to come up with **TWO** more ideas (also in colour, inspired by your mood board).

2. You can choose whether these ideas will be **completely different** from each other, or if the second one will be an improved version of the first.

3. You can choose whether you **draw or model** these two new ideas (see next slide for model-making ideas). You might like to draw one and model the other?

4. Don't forget to include the important points from your **Product Specification** in **both** of your new ideas.

5. Think about the **improvements** you made to your idea from last week. How can you make your two new ideas **even better**? *Don't forget, real designers never use their first idea, as it can always be improved!*

6. Again, make sure you have annotated (labelled) all the important information from your **Product Specification** and the **original Design Brief** (e.g. remember to talk about context/function/materials, etc.).

Suggested Time Frame: 1 hr (30 mins each)

NEXT PAGE ▶▶ MODEL- MAKING

MAKING A MODEL IDEAS FOR 'UPCYCLING' HOUSEHOLD RUBBISH

CARDBOARD Attachments

FLANGE →

L-BRACE →

SLOT →
CUT + CUT = INSERT

TABS →
TAB + SLOT =

BRASS FASTENERS
Hey - It Moves!

HOLE PUNCH + WIRE

'Upcycle' =

To reuse discarded objects or materials in such a way that you create a product of higher quality or value than it was before you started.

▲ Your model shouldn't be life-size at this stage (aka 'to scale'), it should be scaled down like the one above…

WEEK 6

TASK 6: THE PROTOTYPE

Now that you have some design ideas, it's time to pick one and create a prototype!

This is just the **very first** model, 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)
- Something to hold the bed sheet up e.g. a broom stick/mop!

Just remember to take a photo before you dismantle it!

▲ **Your model doesn't need to look perfect/finished. Look at this real-life prototype of a Dulux 'Paint Pod' – it's just made from cardboard and tape!**

Things to consider when modelling:
- **Scale of model** - the prototype should be **life-size** ('to scale'), if possible. But if this is not possible, you can make a smaller version (see Week 5 slide of images for small-scale modelling tips)

- 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! You can make as many models as you like…

LIFE-SIZE MODEL IDEAS FOR 'UPCYCLING' RUBBISH/CARDBOARD
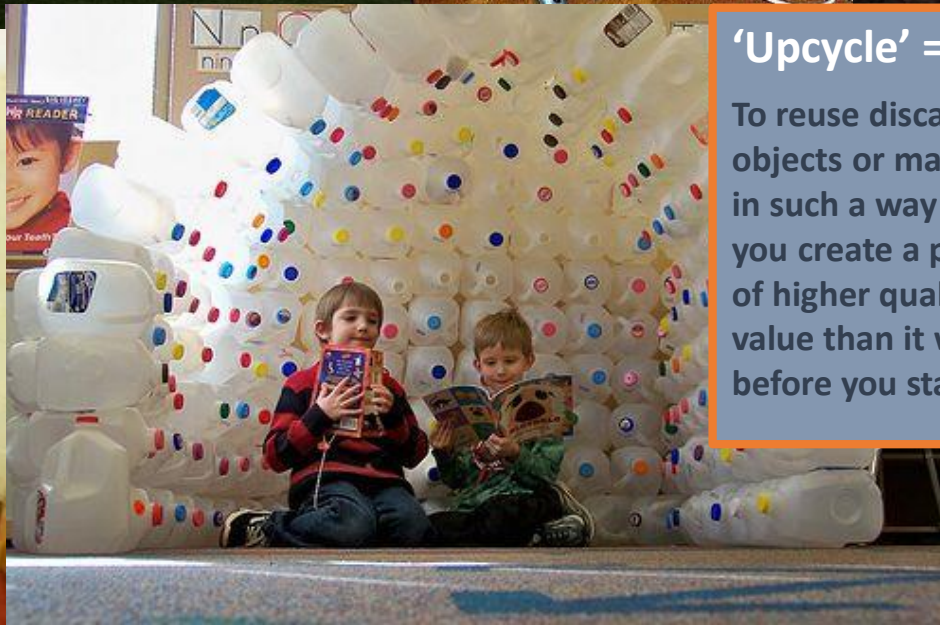
'Upcycle' =

To reuse discarded objects or materials in such a way that you create a product of higher quality or value than it was before you started.

IDEAS FOR SHEETS/TABLES/SOFAS, ETC.
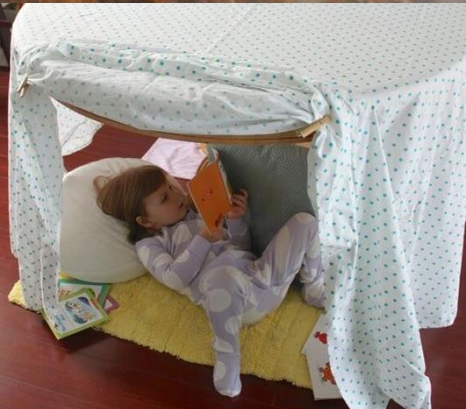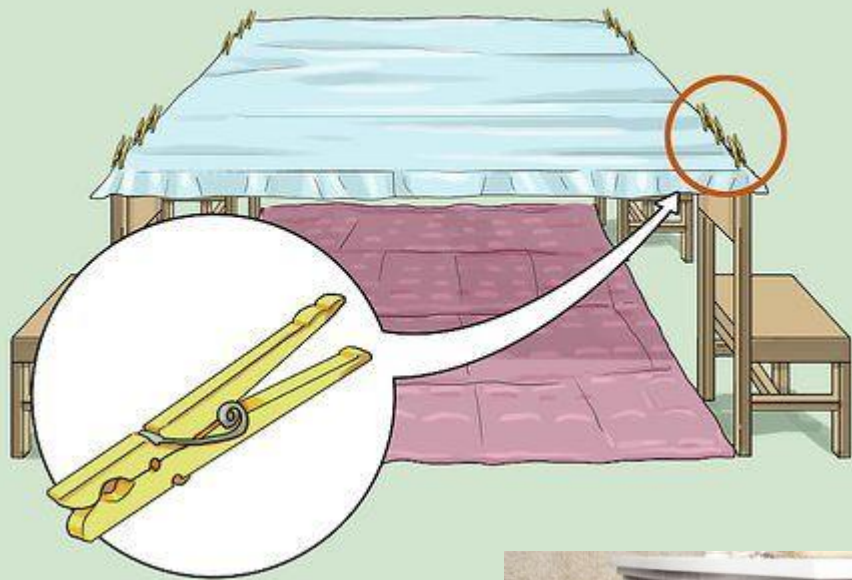
SHEETS OR BLANKETS X3
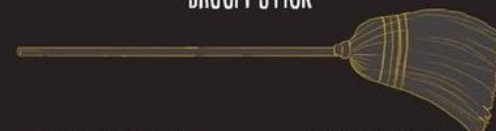
PILLOWS

SOFA CUSHIONS
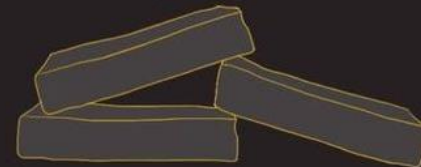
COMFORTER OR SLEEPING BAG
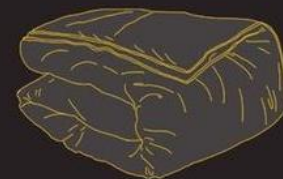
COUCH, CHAIRS, OR BED

SAFETY PINS, CLOTHES PINS OR RUBBER BANDS

BROOM STICK

KEEP OUT!

WEEK 7

AN ORIGINAL NATURE PROGRAMME...

Now that you've finished your design, you're going to make your very own nature programme! (at home)

That way, you can really get into the mindset of your end user!

But you're not going to make the actual nature programme until **next week**.

First, we need to get into the zone...

(This guy's crew!)

Dave x
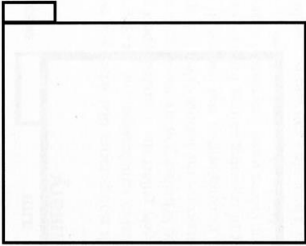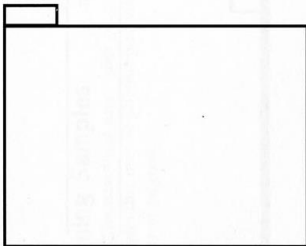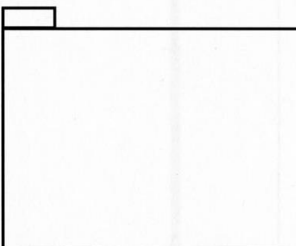
TASK 7: STORYBOARD FOR NATURE PROGRAMME

Firstly, you will need to **plan** your nature programme!

Plan **the sequence** of your programme by sketching out each scene, or even each frame/shot…

▼ **THINK ABOUT….**
1. **ACTION:** What is happening in each picture?
2. **DIALOGUE:** What words/narration will go with each picture?

SHOT #

SHOT #

SHOT #

ACTION

ACTION

ACTION

DIALOGUE
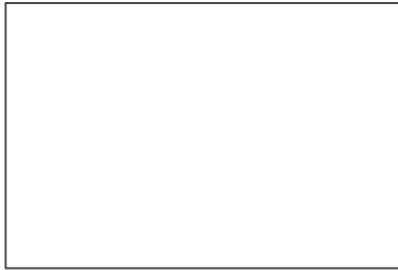
DIALOGUE

DIALOGUE
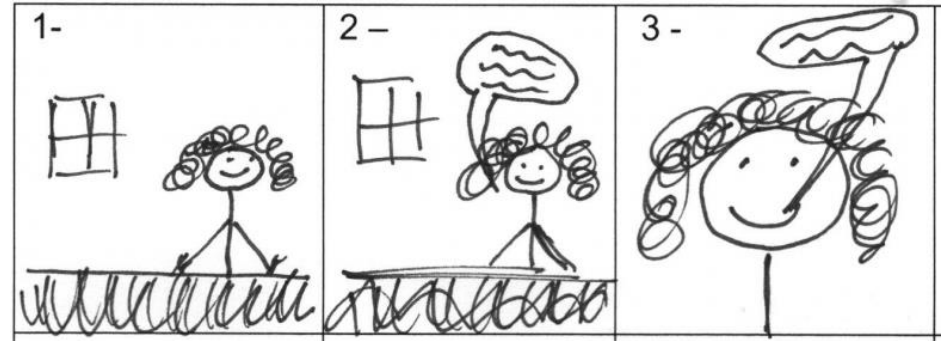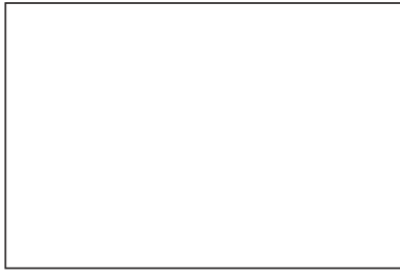
Suggested Time Frame: 60 mins

NEXT PAGE ▶▶ TEMPLATE

TASK 7: STORYBOARD (CONTINUED)

You don't have to draw out all the boxes, you can use a template like this one...

*STORYBOARD:*_____ *DATE:*___/___/____ *TITLE:*_____

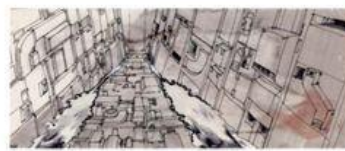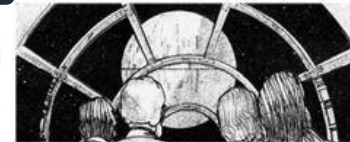*Here's some professional examples to inspire you!*

But please add some colour to yours…

Do you recognise any of these films?

WEEK 8

TASK 8: DO THE NATURE PROGRAMME!

Now that you've finished your storyboard, it's time to actually film it!

You can film your very own nature programme, using your phone.
(and if you're feeling <u>super fancy</u>, there are FREE editing apps like iMovie that might be fun for you to experiment with...)

But don't worry **if there isn't a phone you can use**, you don't need to actually film it, why not **just role play**?

Or, **if you don't want to act it out**, you can make another storyboard, with photos (see example on a following slide).

If possible, maybe you could include your life-size hide (but don't worry if you already dismantled it!)

NEXT PAGE ▶▶ SOME (RATHER ODD) EXAMPLES...
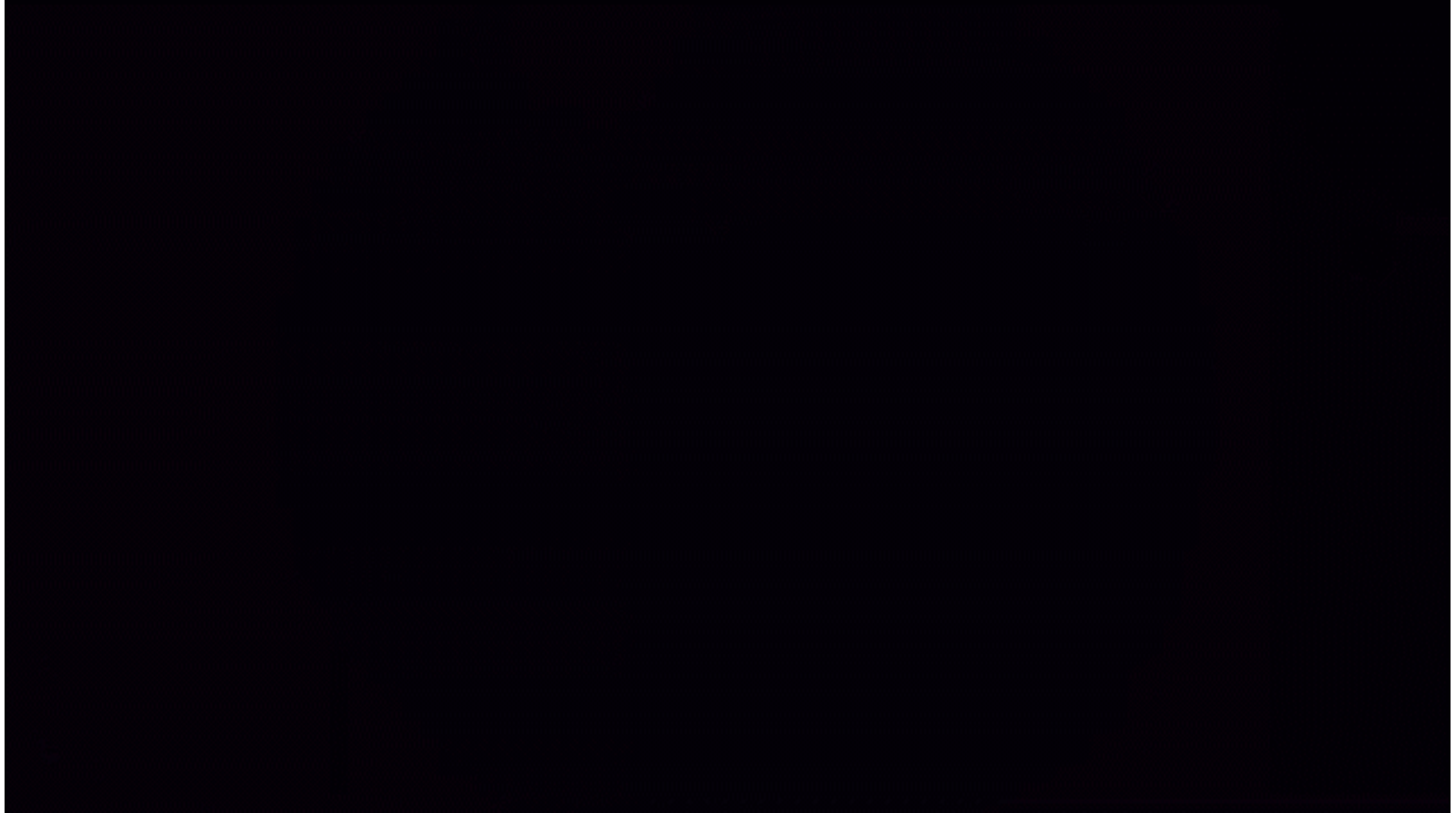
TASK 8: THE NATURE PROGRAMME (CONTINUED)

HERE'S ONE I MADE EARLIER...

TASK 8: THE NATURE PROGRAMME (CONTINUED)

DON'T WORRY IF YOU DON'T HAVE ANY PETS, IMPROVISE...

TASK 8: PHOTO STORYBOARD OPTION

BUT IF YOU DON'T FANCY FILMING/ROLE PLAY, TRY THIS:

STORYBOARD: Scene One   **DATE:** Today   **TITLE:** Amongst the Treetops

Production Company Intro

Setting the scene
(Camera pans treetops)

An old giraffe, minding his own business

Close-up of the hungry cub

Stealthy mama tiger hiding in the trees

Giraffe stumbles upon her...
(CUE DRAMATIC MUSIC!)

THE END.