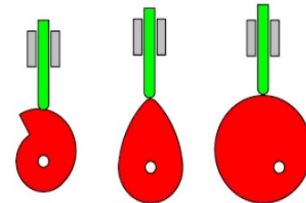


Lesson 7

DMA LO: To design my own moving toy

Who taught you in this session?	Teacher	TA	1:1	HLTA	
	Independent		Supported		
Child	L.O. To design my own moving toy <i>CORNERSTONES Programme of study: Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups</i> <i>CORNERSTONES Essential skills: Develop detailed criteria for designs for products aimed at particular individuals or groups, sharing ideas through cross-sectional and exploded diagrams, prototypes and pattern pieces</i>				
	I know I must carefully think about my design				
	I can sketch accurately, labelling its parts				
	I understand the CAFEQUES themes and can use them to create design criteria				
Lesson 7					

Cam creat



PROGRESSION OBJECTIVES

Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways. Design criteria should cover the intended use of the product, age range targeted and final appearance. Ideas can be communicated in a range of ways, including through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

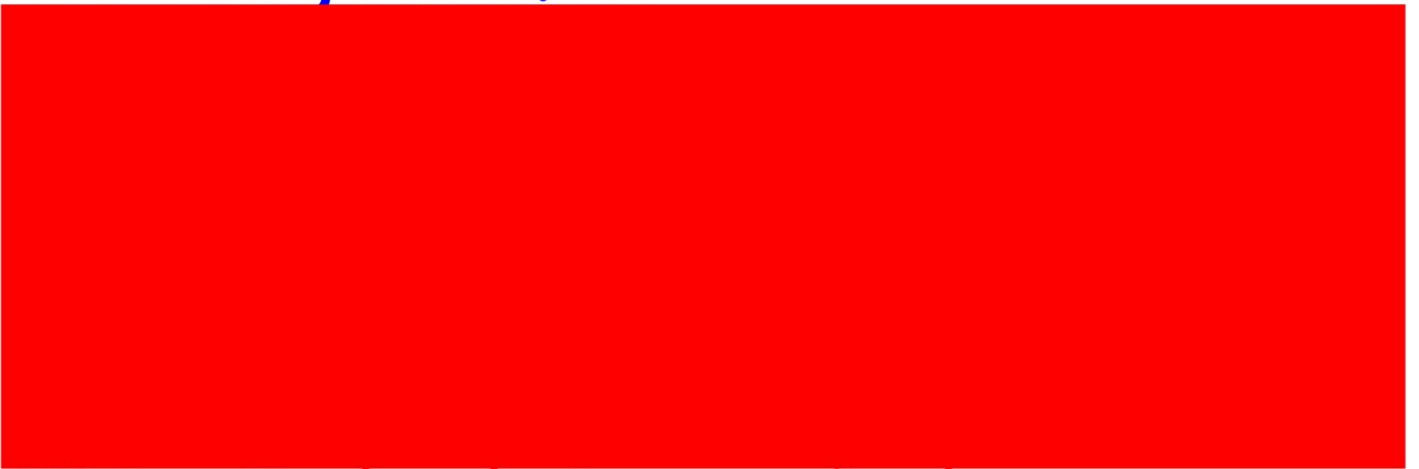
Today we are going to design our cam models! Have a look at the examples and decide what you would like yours to look like:



To start with, we need a design brief!

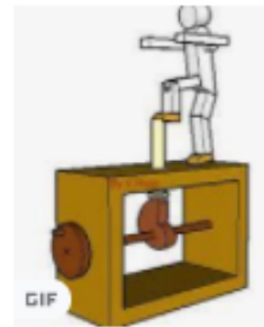
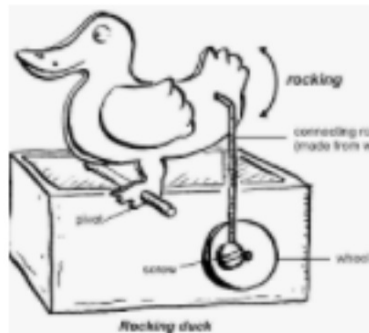
This tells us what the aim of our project is. What could ours be?

Our design brief is:



Write it clearly in your books.

Imagine your design. Sketch an image of it on the small pieces of plain paper, label the parts and answer the questions (on the next page) underneath.



Write the subheadings and details below:

About my moving object

What will move and how?

Which cam/cams will I use to make it move?

What motion will this create?

Additional design features

To design, we need to use design criteria.

Design Criteria

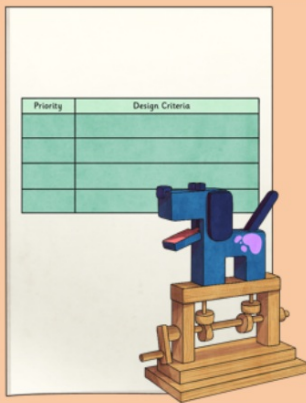


The design criteria (sometimes called specifications) tells the designer exactly what the product has to do and what the design requirements are.

The design criteria is a list of all the requirements of the product.

It should contain details of the functional, aesthetic and design features of the finished product.

It may also include information about size, weight, materials, maintenance, cost and safety.



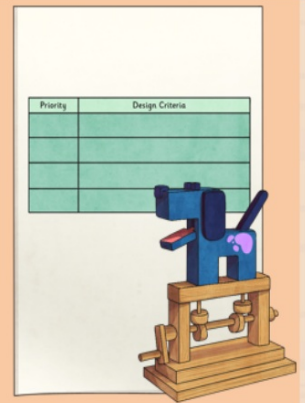
Design Criteria



The design criteria will be used to inform decisions about ways to move forward with the product.

If 'the design process' were a linear sequence then design criteria would be developed at an early stage and then fixed.

In reality, as the designer learns more about the user and thinks about the product, new aspects of the design criteria will become clear, leading to further actions.



Complete design criteria sheets:

CAFQUES	Questions to Spark Ideas	Design Criteria 1	Design Criteria 2
Customer	Who is the product intended for?		
Aesthetics	What appealing features will it have?		
Function	What are its functions?		

CAFQUES	Questions to Spark Ideas	Design Criteria 1	Design Criteria 2
Ergonomics	How will the product shape etc?		
Quality	What design and manufacturing features will ensure a quality product?		
Usability	How easy is the product to use? Will a user guide be needed?		
Environment	How will the product relate to the environment - recycling parts, materials used in manufacture, the manufacturing process?		
Safety	How will you ensure that the product is safe?		

Design criteria question

Design Criteria

What would happen if we didn't use design criteria?



The illustration shows three students sitting at a long wooden table. On the left is a girl with long brown hair wearing a green and black plaid shirt. In the middle is a girl with long brown hair wearing a purple long-sleeved shirt. On the right is a boy with short brown hair wearing a red and white striped shirt. Each student has a white sheet of paper in front of them and is holding a yellow pencil, appearing to be in the middle of writing. The background is a solid light orange color.

Whole Class

REFLECT AND EVALUATE