

The Challenge Brief

Scene Setter

A community is experiencing increasing amounts of flooding. This affects people's safety, destroys their property and affects house prices. It also makes it difficult to build more houses to allow for expanding population. Your team should consider options to protect existing housing from future floods and show examples of a design and model that you have developed. You also have to present a flood safety and development plan to the community and get it accepted.

You will be given a brief with more specific details, such as the location (a map will be provided) , details of the community, outline costs of different types of development.

You will present your models and plans to the local authority committee who will be awarding the contract.

Purpose

Which skills do you think you will use?

Which knowledge that you gained , in technologies , geography and mathematics do you think you will be able to apply?

How will you plan to present the information in an understandable way and in a style that is suitable for your audience?

How will you take account of the views and needs of local stakeholders?

If you were the planning authority of the town, what would you look for in the design team?

Why is this kind of learning useful?

Success criteria

I can create solutions to satisfy a design brief.

I can consider who local stakeholders might be and suggest ways to find out their views and needs

I can explain how my design will work applying my knowledge of geography, mathematics and technologies.

I can make a presentation to an audience, explaining my design and demonstrating my knowledge of how it works.

I can listen to the ideas of others and respond to them in a positive way.

In a team I can take on a range of roles.

I can reflect on my learning and identify the types of skills I have used

Presenting your findings

In addition to fulfilling the brief and testing your team needs to submit evidence to the so that they can understand the design behind your concept.

This evidence will include

- team name
- team members and their roles
- information on planning
- sketches of Initial ideas
- photos/videos of team work
- team reflection based on skills, learning and working together
- short presentation (any format is suitable) explaining your design and the reasoning behind your decisions

Reflection

- Which skills did you use in the different curriculum areas when working in class?
- Which knowledge did you need?
- Are there similarities and differences between what you learn in different subjects?

Rubric

Use the rubrics provided on this page to help you plan. Some of the success criteria will be detailed on this rubric and you will be consulted at the beginning of the project on this. You will be assessed using this rubric so consider what you would need to do to be successful and do a really good job.

Flood development plan

	Satisfactory	Good	Excellent
Working with stakeholders	The success criteria will be negotiated with you.		
Flood development plan	Your team has: Identified risk areas and described possible problems but not clearly Suggested ways to manage that risk Suggested who will be involved in managing the risk	Your team has: Identified risk areas and described possible problems in some detail Suggested options to manage that risk Suggested who will be involved in managing risk and their responsibilities	Your team has: Identified risk areas , described problems in detail and backed this up with maps and explanations Shown analysis of different options for managing the risk Created a plan for who will be involved in managing the risk , what their responsibilities are and how they will report to each other

Design and prototype			
	Satisfactory	Good	Excellent
Design and prototype	Your team has considered one or two options and partially developed a model which addresses flooding in some way	Your team has considered one or two options and worked one of them up into a model which shows some understanding of the needs of the community	Your team has considered several options and worked one idea up into a model which meets the needs of the community affected by flooding
Using skills and knowledge from maths, geography and technologies	These criteria will be negotiated with you.		

Presenting your findings			
	Satisfactory	Good	Excellent
Presenting your findings	Some of the members of your team contributed to planning and delivery of the presentation. Some of the details of your team's plans were included.	Most of the members of your team contributed well to the planning and delivery of the presentation. The presentation included some description on your teams thinking and provided an account of your plans.	All members of your team contributed to planning and delivering the presentation. Your presentation included a clear description of your teams thinking and provides a full account of your flood protection plans.