

Planning and Evaluating Sustainable Design

If you want to build a garden, structure or object, you will need to make decisions about how it is made and you will probably want to show it in drawings. You can use the Design Planner to help you think about the different aspects that will be incorporated into your design, what it will look like and how it will work.

There is no set order to do things in. You could start by making some decisions and drawing what your object or place might look like, come up with some criteria to assess the design, and then refine the drawing as you investigate and work things out. Or, you might decide on your criteria before you begin designing (see Evaluating Sustainable Design). You probably won't foresee all of the issues before you start building and you probably won't draw every little detail.

Whether you are evaluating a building, an object or a space, it is important to consider its whole life cycle, not just the object or end result that you see. You might consider the following questions.

How can the design work better with natural cycles?
How can local people and resources be part of the design?
How will the design be good for nature and people?

You may need to break the design task down. As a class, you could agree on some key aspects of the design and then explore how it will look individually or in groups. You could then share the different ideas to arrive at a design you agree on. Or, if it is a large space, you might agree on the overall purpose and qualities and then different people could design specific objects or aspects within it.

Even after you have designed and drawn up your plans, be sensitive to changing circumstances, new information or fresh perspectives as you move into action. Keep consulting, designing and making decisions all the way through the building process if you need to.



Qualities of sustainable design

How are the following qualities incorporated into different aspects of the design?	Aspects to consider in the design			
	Materials	Manufacturing and Construction	Life and Use of the Object	End of Current Use or Life
Use renewable resources				
Reduce reliance on fossil fuels				
Conserve water and help make the water cycle healthy				
Restore or enhance natural habitats				
Reduce waste				
Incorporate strengths and skills of students and local people				
Honour the heritage of the people and place				
Care for people's spiritual, mental and physical well-being				
Make us more aware about living a healthy, peaceful and sustainable life				

Materials

Where do the materials come from?
 How far are things transported?
 How does extraction affect different habitats and communities?
 How healthy are the materials?
 Are they renewable?
 What other properties do they have?
 How does it feel to be surrounded by, or in contact with these materials?

Life and Use of the Object

What resources (such as energy and water) are needed for you to use it?
 What waste products are produced?
 How much maintenance is required?
 How durable is it?

Manufacturing and Construction

How is it made?
 What processes are used?
 What conditions do the people who make it work in?
 How much energy and water is used?
 What kinds of waste are produced during the process?
 Where does the waste go?
 What effects do these processes have on the environment?

End of Current Use

Can it be reused or adapted?
 How much of it can be recycled?
 What happens to the bits that can't be recycled?

Design Planner

