Structures and Mechanisms

Build a ferris wheel with comfortable seating

Mechanisms vocabulary

Axle	A long straight piece of material which connects to a rotating component (e.g. the wheels of a car).
Decorate	To add details to a design to improve its appearance.
Evaluation	When you look at the good and bad points about something, then think about how you could improve it.
Ferris wheel	A ride at a fairground which carries passengers around a large vertical wheel.
Ferris wheel pod	The container which carries passengers around the ferris wheel.
Mechanism	The parts of an object that move together as part of a machine.
Stable	Object does not easily topple over.
Strong	Something that is not easily broken (e.g. wood, brick, building).
Test	To find out whether something works as it should.
Waterproof	Material that does not allow water pass through it.
Weak	Something that is easily broken (e.g. eggshells).

Did you know?

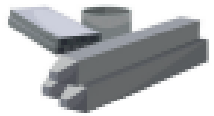
The first **ferris wheel** to be built was called the Chicago wheel, in 1893 over 100 years ago!

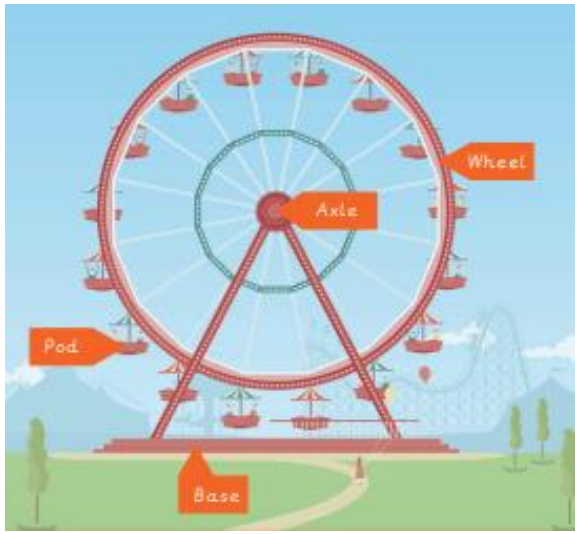
It was over 80 metres tall.

Structures vocabulary

Function	How something works.
Man-made	Made by people.
Mould	To form different shapes out of soft, squishy materials.
Natural	Found in nature e.g. spider's web, sheep's wool.
Stable	Object does not easily topple over.
Stiff	A material or object that does not bend easily (e.g. wood).
Strong	Something that is not easily broken (e.g. wood, brick, building).
Structure	Something that has been made and put together and can usually stand on its own (e.g. a building, a bridge, a chair).
Test	To find out whether something works as it should.
Weak	Something that is easily broken (e.g. paper, egg shells).

Materials have different properties. Your **ferris wheel** design will need to be **stable** and **strong**. Which materials could you use?

	Bricks are made from clay. They are stiff and **strong**.
	Wood comes from trees. It is **strong** and flexible.
	Metal comes from ore, that is mined underground. It is **strong** and hard.



Often **structures** have a certain **function**, they are made to do something. e.g. Chairs are for sitting on.