

## Structures- Stability and Strength

### What should I already know?

- A structure is something that is built to do a job

### Key Vocabulary

|              |  |
|--------------|--|
| Better       | Nicer, easier to use or lasts longer.        |
| Compare      | To say how things are the same or different. |
| Design       | To make, draw or write plans for something.  |
| Explain      | Tell someone about something clearly.        |
| Freestanding | Can stand up on its own.                     |
| Product      | Something that people make to sell or use.   |
| Stable       | Not likely to topple over.                   |
| User         | The person that something is made for.       |
| worse        | Less nice, harder to use or breaks easily.   |

### Aspirational Figure

#### Isambard Kingdom Brunel

He was an engineer

He designed some of the most famous bridges, tunnels, railways and boats in the world.

His designs changed the lives of many people.

He lived around 200 years ago, during the Victorian age.

### Key Objectives I will learn

To explore stability by balancing.

To explore wide or narrow bases by building towers.

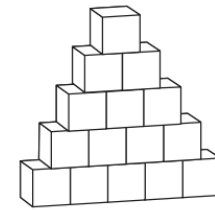
To test a structure's stability with weight added in different places

To design a stable structure that meets the needs of a user.

To use a variety of cutting and joining techniques to make a stable product

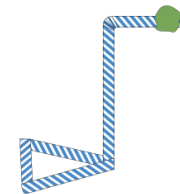
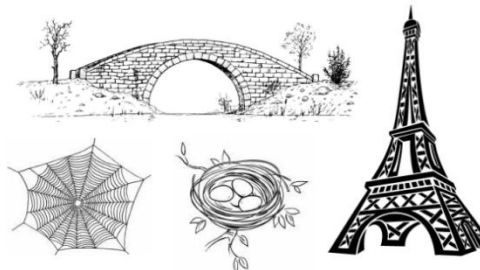


Structures with a **narrow** base are **unstable**.

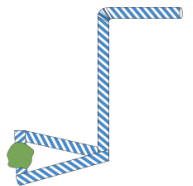


Structures with a **wide** base are more **stable**.

#### Human and animal structures:



Putting extra weight at the **top** makes the structure **unstable**.



Putting extra weight at the **bottom** makes the structure more **stable**.