

TOWERS, TUNNELS AND TURRETS

Imaginative learning project for year 2



See the castle ahead? Get ready to invade its mighty walls. Shoot a projectile with an archer's aim. Head across the drawbridge, over the moat and up to the top of the tower. Meet Rapunzel who lives in a tall, tall tower. Let's build a brand new one. Whose is the tallest? Can you measure it? Then dig deep, deep down, making burrows and tunnels, just like the animals who live underground. What's that sound? I hear little hooves going trip, trap, trip, trap over the rickety bridge. Watch out for the angry troll underneath. He likes to gobble up little girls and boys. Make sure your bridge is sturdy enough to take our weight and get us safely to the other side. And finally, meet three little pigs who need your help to build a strong fortress. Inside its strong walls, they'll be safe from the big, bad wolf. No huffing and puffing will blow your fortress down.

DT Focus

- Isambard Kingdom Brunel was one of the most inventive engineers of the 19th century
- Some of Brunel's most famous structures include the Thames Tunnel, Clifton Suspension Bridge, Great Western Railway and Maidenhead Railway Bridge
- A bridge is a structure built over a road, river or railway
- An engineer is a person who designs or builds structures, such as tunnels, railways or bridges
- Properties of materials determine how they can and cannot be used. For example, plastic is shiny and strong but it can be difficult to paint
- A structure is something that has been built from parts, like a large building
- A broader base will make a structure more stable
- A viaduct is a long, high bridge, usually held up by many arches, that carries a railway, waterway or road over a valley, river or land that is difficult to cross

Key Vocabulary

- ⇒ **Arch:** a curved structure that goes over an opening and supports the weight of the bridge, wall or roof above it
- ⇒ **Keep:** the strong, central tower of a castle
- ⇒ **Motte:** a small hill in the middle of a castle on which a fort or keep is built
- ⇒ **Portcullis:** a strong gate that hangs above the entrance to a castle and can be lowered to protect those inside from enemies
- ⇒ **Tower:** a tall, narrow building that either stands alone or forms part of a building
- ⇒ **Turret:** a small, circular tower that is built on top of a wall or other tower
- ⇒ **Viaduct:** a long, high bridge, usually held up by many arches that carries a railway, waterway or road

Homework Projects

- ◆ Find out about famous engineers. Search the web and use non-fiction books to find out about their life and work
- ◆ Make a detailed diagram of a castle, labelling interesting features which might be found inside or out. Perhaps you could find out about garderobes or loop-holes?
- ◆ Design and create a model of a famous structure from around the world, using junk materials found at home. Will you choose London Bridge, the Leaning Tower of Pisa or perhaps the Statue of Liberty? Find a photograph of your chosen landmark to use as inspiration
- ◆ Design a fantastic new landmark for your local area! What materials would you use and what special features would it have? Create a presentation