

# Megastructures



## Areas of learning

As **Geographers** we will be looking at fantastic buildings and structures all over the world. We will be finding out where they are and naming some of the countries and continents where we can find them. Eventually, we will end up close to home where we will discover our very own local megastructures. These might be bridges or buildings.

As **Historians** we will be studying changes in the lives of people. We will look at some of the major megastructures all over the world and find out how they changed the lives of people. We will explore how life changed for people when the Channel Tunnel was built, how things changed when the Hoover Dam was built and how things changed for us when our nearest bridge was built.

As **Designers** we will be designing and making our own structures. We will learn how to join materials and change their shape to make them stronger.

As **Artists** we will be observing our local structures and using pencils to carefully draw the shapes we see.

## Enterprise

As enterprising people we will:

Take part in the Great Bridge Challenge. We will have been learning about how to make materials stronger and how to join things together. Now we will have to work in teams to design the longest, strongest and cheapest bridge ... but we will have to keep costs down as every item we use will take up some of our budget. The winners will be the designers of the longest, strongest and cheapest bridge. Good luck!

## Environment

As people concerned with our environment we will:

Explore our local, built up environment. We will learn that that the environment is not just the fields and seas but also the buildings and structures around us. We will ask questions about what we like about the structures of our local area and why.

## Spiritual and moral

In our spiritual and moral development we will:

Explore some of the most holy buildings in our area, and around the world. We will ask what it means to visit a church, a mosque, a synagogue or any other holy building.

## Communities

As members of a community we will:

Explore our local council. The council is usually in a big building and sometimes the building is quite a grand building. But what happens in the council? We will contact our local councillor and ask what goes on.

# Megastructures Skills

## Learning across the curriculum

### Using communication

#### Writing, presenting and broadcasting

- Labels
- Lists
- Captions
- Instructions
- Recounts
- Glossaries
- Non-chronological reports
- Poems

### Using mathematics

#### Modelling

- Estimating
- Measuring

#### Calculating

- Length
- Weight

#### Justifying

- Using mathematical words to explain and justify

### Using ICT

#### Searching

- Websites
- Databases

#### Developing ideas and making things happen

- Graphics
- Text
- Multimedia

#### Communication

- E mail and messages

### Personal development

#### Learning and thinking skills

- Asking relevant questions
- Analysing information
- Planning how to go about presenting information
- Creating and developing maps and plans
- Creating ideas for persuasive arguments
- Recognising similarities and differences in environmental features
- Communicating using data and the written word
- Evaluating the impact of persuasive posters

#### Personal and emotional skills

- Identifying strengths and weaknesses in our work for others
- Setting goals for more active community involvement
- Working independently in written work
- Managing feelings and becoming self aware when discussing and finding out about how people sometimes put themselves at great personal risk when helping others

#### Social skills

- Listening and responding appropriately to those who tell us about their voluntary work
- Working collaboratively
- Giving constructive support and feedback to others

## Subject Key Skills

### History, geography and citizenship

#### Investigate

Undertake investigations and enquiries using various methods, media and sources.

#### Analyse

Compare, interpret and analyse different types of evidence from a range of sources.

#### Communicate

Present and communicate findings in a range of ways and develop arguments and explanations using appropriate specialist vocabulary and techniques.

#### Consider and respond

Consider, respond to and debate alternative viewpoints in order to take informed and responsible action.

### Science and design technology

#### Generate ideas

Observe and explore to generate ideas, define problems and pose questions in order to develop investigations and products.

#### Investigate, observe and record

Engage safely in practical investigations and experiments and gather and record evidence by observation and measurement.

#### Design, make and improve

Apply practical skills to design, make and improve products safely, taking account of users and purposes.

#### Explain

Communicate and model in order to explain and develop ideas, share findings and conclusions.

#### Evaluate

Continually make systematic evaluations when designing and making, to bring about improvements in processes and outcomes.

### Art, dance and drama

#### Explore

Explore, investigate and experiment from a range of stimuli and starting points, roles, techniques, approaches, materials and media.

#### Create

Create, design, devise, compose and choreograph individual and collective work.

#### Improvise

Improvise, rehearse and refine in order to improve capability and the quality of artworks.

#### Present

Present, display and perform for a range of audiences, to develop and communicate ideas and evoke responses.

#### Evaluate

Use arts-specific vocabulary to respond to, evaluate, explain, analyse, question and critique their own and other people's artistic works.

### PSHE

#### Reflect and evaluate

Reflection and evaluate evidence when making personal choices or bringing about improvements in performance and behaviour.

#### Plan and implement

Generate and implement ideas, plans and strategies, exploring alternatives.

#### Move with control

Move with ease, poise, stability and control in a range of physical contexts.

#### Present

Present, display and perform for a range of audiences, to develop and communicate ideas and evoke responses.

#### Evaluate

Use arts-specific vocabulary to respond to, evaluate, explain, analyse, question and critique their own and other people's artistic works.