

Year: A Term: 1

Unit: Brunel

Curriculum Coverage:

Design and Technology

Design

Design purposeful, functional, appealing products for themselves and other users based on design criteria

Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

Explore and evaluate a range of existing products

Evaluate their ideas and products against design criteria

Technical knowledge

Build structures, exploring how they can be made stronger, stiffer and more stable

Explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products

Geography

Human and Physical Geography

Use basic geographical vocabulary to refer to:

key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather

key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop

Geographical Skills and Fieldwork

Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key

History

The lives of significant individuals in the past who have contributed to national and international achievements

Significant historical events, people and places in their own locality.

Science

Everyday Materials

Y1

Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock

Describe the simple physical properties of a variety of everyday materials

Uses of everyday materials

Y2

Pupils should be taught to:

Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses

Resources:

Trip to Bristol- suspension bridge/S.S. Great Britain

www.bbc.co.uk/schools/primaryhistory/famouspeople/isambard_kingdom_brunel - teacher and children resources - photos, videos, games etc.

www.ssgreatbritain.org - section on Brunel for children

<http://www.twinkl.co.uk/resources/significant-individuals-isambard-kingdom-brunel>

<http://www.ikbrunel.org.uk/visual-resources> - group encouraging girls to study engineering

http://www.schoolslinks.co.uk/adapted_brunel.pdf - planning ideas

http://www.history.org.uk/resources/primary_resources_134.html Nuffield

Tasks:

D.T.

- Explore what it means to be an engineer - relate to Brunel
- Design a bridge - use a range of modelling kits and junk materials. Explore strong shapes

Geography

- Investigate the geography of Bristol around the docks and along the river. Look at physical and human features on maps, plans and aerial photographs.
- Make own maps of Bristol after visit

History

- Examine the life of Isambard Kingdom Brunel and his importance to our local area - the railway tunnel at Box, the Clifton suspension bridge, Temple Meads Station, S.S. Great Britain.
- Trip to Bristol - drive past Temple Meads, walk across the suspension bridge, visit to S.S. Great Britain

Science

- Investigate materials, related to bridge making. What would make a good material to make a bridge? Why would that be a good material?

Other links: