

HISTORY & HUMANITIES WORKSHOPS

History & Humanities Workshops: These are structured workshops, using History & Humanities as a starting point and utilising DT, Maths, & Science to differing degrees to create large scale models of architectural landmarks.



History Workshops

Greek Temple; *The Parthenon 25 (90 mins) or 35 students (120 mins)*

Students how Classical Architecture has influenced the built environment using a combination of problem solving, and group work to construct a thrilling 2.5m high temple including columns, pediments and roof valleys. Height 3m

Tudor Globe Theatre; *25 (90 mins) or 35 students (120 mins)*

Students build structures individually and in groups, culminating with raising the roof of a giant model of London's Globe Theatre. Height 3.5 m

Victorian Crystal Palace; *25 (90 mins) or 35 students (120 mins)*

Learning about the mass production of the industrial revolution, students piece together building parts, they have previously made, to form one large single Barrel-Vault enclosure. Height 4m

World War Two; *25 (90 minutes) or 35 (120minutes)*

Andersen Shelters: Pupils build models of the iconic Andersen shelter in small teams, Which will survive the blitz? Height 1.5m

Humanities Workshops 25 – 35 students (90 - 120 minutes)

Black History; *Empire Windrush*

To celebrate Black History Month we have devised a model of the 1930's German Cruise ship turned troop carrier and seized by the British as WW2 reparations. Pupils work individually and in groups to build a 12–15m long structure, including funnels!

Christian Architecture; *Ely Cathedral*

Pupils learn about European Christian Architecture in the middle ages through the construction of a classical structure representing Ely Cathedral and its Octagon "Lantern" centre whilst learning about its ancient history. Height 5m

Indian Architecture; *Taj Mahal*

The Taj Mahal is 'The' exemplar of Indian Architecture bringing together Mughal, Islamic and Hindu influences to celebrate the diversity of the Indian region of Agra. It is a Mausoleum, built by the Mughal emperor Shah Jahan in memory of his favourite wife, Mumtaz. Height 4m

Islamic Architecture; *Dome Of The Rock*

Using the Dome of Rock in Jerusalem as the key example of an Islamic place of worship. The Dome of Rock is the oldest surviving example of Islamic architecture still in use today. Height 4m

STEM & STEAM WORKSHOPS

STEM Workshops

Fairgrounds

Three most popular fairground attractions are explored through creative hand-on building. Please specify which fairground ride you require when booking. Height 4–6m

Ferris Wheel; *60 / 90 / 120 with 35 students*

Helter Skelter; *90 / 120 mins with 35 students*

Roller Coaster; *90 / 120 mins with 35 students*

Geodesic Structures 25 (90 mins) or 35 students (120 mins)

The use of geometric shapes are explored and the ideas of Buckminster Fuller introduced in this exploratory workshop. Students are introduced to the possibilities of constructing geodesic domes for habitation and thereby questioning our reliance on traditional materials. Height 4m

Millennium Bridges 25 (90 mins) or 35 students (120 mins)

The London and York Millennium bridges are compared side-by-side in the workshop. Students construct models of the both bridges, exploring the differences and similarities between the two types of suspension bridge.

Millennium Dome 25 (90 mins) or 35 students (120 mins)

We are resurrecting our fabulous Millennium Dome workshop, as schools keep asking for it because so many pupils have now been inside it. The steel tensile structure is recreated in your school hall. Height 4m

Octas; *30 students (45 – 60 minutes)*

Using triangles to make Octahedron, students fix them together to build a tower. Height up to 8m

Stadium Structures 35 students (120 mins)

Based Old Trafford (Manchester United) and The Emirates (Arsenal) stadiums, pupils work together to build sections that are then constructed into the roof structure of one large stadium model. Height 2.5m

Tetra; *30 students (45 – 120 minutes)*

Students build tetrahedrons and problem solve how to use them to build a larger tetrahedron. In an hour the students will construct a tetrahedron 3m high, in 2hrs it reaches about 7m. Height 3–7m

STEAM Workshops

Workshops focusing on investigation, disassembly and evaluation as design and make assignments. Using DT, Maths & Science these workshops are designed to stimulate student's imagination, interpretative and visual problem solving skills helping to develop higher order thinking. These workshops are often run as year group or inter-school competitions by regular clients

Art & Sculpture; *35 students (120 mins)*

In groups students examine and discuss detailed examples of modernist abstract painting, specifically the analysis of the paintings composition, structure and narrative. Students explore sculpture making through movement, balance, and composition to create three dimensional structural interpretations of one of the abstract paintings. They consider and discuss their finished sculptures, learning to evaluate their work and the perception of others. Height 3m

Bridges, Maths & Design; *25 (90 mins) or 35 students (120 mins)*

The importance of triangulation is explored through the behaviour of beam, cantilever, suspension and bascule bridge types, as well as being pivotal in the design of many other structures using simple framework technology. Students

engage in teams to solve a bridging problem using a truss-girder bridge form 2m in length. Bridges are then discussed and evaluated. Height 2m

Mathematical Sculptures; *25 (90 mins) or 35 students (120 mins)*

Students are asked to design and build simple stylised sculptures of anything they like. They can be figurative, animal, abstract or based on a theme e.g Transport. Can be combined with local design project relating to school or town. Height 4m

Maths & Shelter; *25 (90 mins) or 35 students (120 mins)*

Students explore the notion of shelter and our requirements for the habitats we live in through the design and construction of a temporary shelter, in one of 3 extreme environments. They are made aware of environmental requirements regarding sustainable development and personal space, as the shelters must be large enough for their team to theoretically sleep in! Height 4m

Olympic Sculptures; *25 (90 mins) or 35 students (120 mins)*

Students are asked to design and build simple stylised sculptures which represent Olympic events as 3D iconography for the 2012 Olympic games. Working quickly to stylise the image of a participating athlete, in an affective pose. An understanding of the nature of abstract art is desirable. Height 5m

Mathematical Skyscrapers; *25 (90 mins) or 35 students (120 mins)*

Students attempt to design and build the tallest and most interesting skyscraper structure they can achieve without it collapsing. Huge fun with a serious message; the tallest is not always the best and uniqueness is everything! Combine both to achieve success. A tall open space is essential and can be built outside, weather permitting. Height up to 12m

