



## Architecture Workshops

### Key Stages 3, 4 & 5

#### Build-It workshops

**Fairgrounds Ferris Wheel/Helter Skelter/Roller Coaster** 25 (90 mins) or 35 students (120 mins)

The 3 most popular fairground attractions are explored through creative hand-on building. Please specify which fairground ride you require when booking **Height 4 - 6 m**

**Greco - Roman: Temple;** 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**

**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 as a starting point, students build Octahedron, which they fix together to build a tower 8m high and other complex structures. **Height 6m**

The workshops are divided into two categories:

#### 'Build-It'

These are structured workshops, using **design technology, maths, & science** to differing degrees. Students create large scale reconstructions of architectural landmarks.

#### 'Kre8'

Workshops focusing on **investigation, disassembly and evaluation** as **design and make assignments**. Using **design technology, maths and science** these workshops are designed to stimulate student's **imagination, interpretative and visual problem solving skills** helping to develop **higher order thinking**. Kre8 workshops are often run as year group or inter-school competitions by our regular clients.

**Stadium Structures;** (NEW) 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**

**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**

**Humanities workshops** 40 students (120 minutes)

**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**

**Hebrew Architecture Solomon's Temple;**  
Pupils experience an introductory understanding of the Hebrew faith through the construction of the temple, which is significant to the Hebrew faith, and described in many ancient texts. **Height 3m**

**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**

#### Kre8 workshops

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

## Architecture Workshops

**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**

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