

ARCHITECTURAL MODELS

THE GHERKIN

CLASSROOM-BASED ACTIVITY

These activities will help students to explore different ways of designing, using the architect's models in the V&A+RIBA Architecture collections as inspiration.

You could do these activities before or after a visit to the Museum. The activities will help students to explore different ways of approaching the design process.

Architects use many different types of drawings and models when developing an idea, depending on what stage they are at in the design process. They will also need to consider the budget, the needs and expectations of their client, and the materials they have available to visualise their ideas.

The Gherkin was designed by Foster + Partners and completed in 2003. Designed as an office building with a restaurant, it has become one of London's most iconic structures. The models of The Gherkin in the V&A + RIBA Architecture collections were made by Foster + Partners to work out the best shape for the 180-metre high office building in the City. They modified them to take into account the bulk, visual impact and aerodynamic qualities of the building, also the provision of open space at ground level.

- Use the V&A search the collections page (collections.vam.ac.uk) to show students an image of the models for The Gherkin in the V&A + RIBA Architecture collection.
- Give each student a piece of plasticine and ask them to divide it into two equal pieces.
- Students should model each piece into a unique abstract shape; one shape could be inspired by choosing a word as a starting point (for example, sustainable, organic, futuristic, ornate).
- Students can use one of the shapes to inspire a design for a product. E.g. a lamp or a piece of furniture, and use the other to inspire a design for a building. Encourage students to sketch out their designs.

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SYDNEY OPERA HOUSE

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The design of the Sydney Opera House is an example of collaborative working between architects and engineers. When Jorn Utzon won the Sydney Opera House competition in 1957 nobody knew how to build the roof structure. Utzon's original concept showed huge, billowing shells resting on narrow points, but the engineer, Ove Arup, realised that the shells would not sustain the forces they would generate.

Three years later, when work on site had already started, Arup found the answer - in an orange. By cutting 'spherical triangles' from the skin, he discovered a regular basis for the irregular forms they wished to create. To develop his idea further he made a wooden model, which can now be seen in the V&A+RIBA Architecture gallery.

- Give each student an apple to cut into segments. Ask them to combine the pieces to model a design for a lamp, a piece of furniture or a building. They could use short pieces of dowel or cocktail sticks to join the pieces.
- Sketch the design, then overlay the sketch with tracing paper and explore how the idea could be developed further

TAKING INSPIRATION

MUSEUM-BASED ACTIVITY

Take inspiration for a shelter design from the architectural features you see in the Museum. Take your ideas back to school or college to create your design in model form.

Architects get inspiration for their ideas from looking at a variety of sources, including their environment, natural and man-made forms, their imagination, other designers ideas and through experimentation.

Artists and designers have come to the V&A to make sketches since its inception. A sketchbook is an essential tool for an architect, who will record observations, notes and photographs that may help to influence their designs.

Use your sketchbook to record observations that you make in the museum. Remember that a sketchbook is a place to experiment, mistakes and unfinished sketches are allowed.

- *Use the V&A building to inspire a design for a shelter, to be located somewhere in your local environment. Look at features such as columns, windows, doorways and lighting in the suggested below to gather inspiration:*

*The Cast Courts (Rooms 46a, 46b)
Glass galleries (Room 131)
British galleries (Rooms 118-125c)
Grand Entrance (Level 1)
The Madejski Garden
The Ceramic Staircase (Room 129)*

- *Use your sketchbook to research and record what you see. Write notes, make sketches and take photographs that you can use to show your design process.*
- *When you return to school use the ideas in your sketchbook to develop your shelter idea further, creating a model and scale drawing of your design.*

WORKING TO A BRIEF

MUSEUM-BASED ACTIVITY

Working to a client brief is an essential part of the design process. The architect will analyse the brief and identify how the building must function to meet its users' needs.

In 2011 the V&A launched a competition to design a new courtyard, entrance and exhibition galleries.

The chosen design, by Amanda Levete Architects, includes natural light, high ceilings and spaces that allow flexibility when planning and designing new exhibitions.

The new design combines the latest technologies including a striking cantilevered gallery ceiling, allowing the gallery to soar to 9m tall at its highest point. The design has a deep respect for the existing architecture, much of which will be revealed by the project.

- *Imagine you have been asked to design a new exhibition space at the V&A. Remember that the space will need to be flexible, as different exhibitions require different spaces to house them.*
- *Consider the varying needs and requirements of the Museum and its visitors. What sort of areas might you need to include in your exhibition space (e.g. classroom, toilets, café etc.)?*
- *What practical considerations do you need to think of to ensure access for all? This might include lifts, braille text, wide doorways and benches.*
- *Make some sketches you could show to the client to explain your ideas. Back at school these could be incorporated into an inspiration board with colour samples, fabric and material swatches etc.*