



Project:>

Expressive Model Buildings

Introduction:

The aim of the architecture project at Galston Primary School was to heighten the children's awareness of different types of buildings and different materials used in their construction. The project aimed to encourage an inquisitive and emotional response to architecture through the children being informed of and experiencing the design construction of a 'building' of their own. Environmental Studies and Expressive Arts were the focal points of the project. The pupils worked alongside architect/artist Kirsteen Bunting who introduced the design process in an extremely creative and fun manner.

Learning Aims:

- To raise awareness of the surrounding built environment by looking at the design of buildings rather than at their function.
- To design a building for a disused area in the school grounds (a 'time out' place for the Head Teacher)

Learning Outcomes:

- The creation of imaginative drawings of the school, looking at shapes within the building (Activity 2)
Designing a building (Activity 3,4&5)
- Exploration of materials to construct models
- Problem solving of the task set
- Creation of small and extremely large scale models
- Production of scaled drawing/plans of designed building
- Construction of a scaled model of created building
- Experiencing the construction and design process
- Working alongside a practising architect/artist

Final Product:

- The design and construction of a large-scale model of a building.
- The pupils at Galston Primary were able to sit in their building at the end of the unit which gave them a real sense of achievement and ownership.

Artist/Teacher Input:

- Slide show of buildings in the local area discussing likes and dislikes

Activities:

Activity 1 Matching Words and Images

Pupils (divided into groups) are given seven flash cards with two adjectives written on them plus a flash card with one image (a building from local area). Each group has to match words to their image. Once they have decided which are the best-suited words for the image, each group shows the rest of the class their choice. Class discussion takes place and additional descriptive words are suggested.

Activity 2 Detective Worksheets (Opportunity for Language Development)

Each child is given an image of a piece of architecture and has to answer questions on it. This involves looking at the picture and observing its function, shape(s), materials used, opinions on it, clues to its geographical location - will it be hot or cold inside? Discussion on windows, light, heat, sloping roofs and flat roofs.

Activity 3 Observing 'Our' School

Pupils go outside and study the school building focussing on collecting shapes they can see within the building, not making complete drawings of the building. Using lots of paper in a sketchbook form (these can be made out of newsprint paper) means that drawings are not treated preciously. On return to the classroom the pupils cut out the shapes they have drawn to work with in the next activity.

Activity 4 Creating a Model (Opportunity for Environmental Studies (Geography) and Art and Design: Drawing and Information Gathering)

Using the shapes from the previous lesson, pupils collage them into the form of a building, overlapping the shapes and sketching over them. The emphasis should be on using their imagination. Using their collage/drawings as a starting point, pupils start to model their building out of junk. They choose one or two pieces of junk that relate to a part of their drawing and start to put them together. More junk is added to the construction. Pupils are shown how to make paper spills. Using the paper structurally the model will begin to emerge. The lesson should stop at the half way stage.

Activity 5 Completing the Model (Opportunity for Using Information, Design and Technology)

Review previous work and go over the importance of function and climate in the design of buildings. Pupils discuss and consider what design problems they have encountered whilst constructing their buildings. Pupils continue to work and complete models; they then go on to discuss their models with the class.

Activities:

Activity 6 Plans and Elevations (Opportunity for implementing Technology, Environmental Studies, Climate, Listening and Talking about Options)

Discussion on plans and elevations (show examples of models and plans, these can be borrowed from local architects or museums).

Methodology: How can you create a plan of your model? (observing, recording) What do you have to consider? (scale, proportion, balance, shape) What equipment will we need to work out our calculations? (ruler, pencil)

Reinforce that this step is crucial to the design process. Pupils do plan drawings of their model.

Activity 7 Model Selection (Opportunity for implementing Maths)

Class presentations on work achieved to date. Head Teacher selects two models which are then joined together to make one model. The pupils divide into two groups and draw detailed plans of the new model, measuring and calculating and taking into consideration the site where the building will be located. Will it fit in the designated area?

Activity 8 Scaling Up the Model

The class proceed to construct a very large model of the selected building using cardboard, paper, tape, glue, clips and laminate. Pupils have to consider these materials, their strength and durability. Consideration has to be taken of the size of the final model (area where construction will take place, storage space).

Activity 9 Construction of a Large Scale Model

Pupils consider the construction of a very large model. They will need to introduce pillar supports, cross bracing, strapping and laminating. At this stage the class may be divided up into working groups.

Activity 10 Team Working

In constructing the large scale model the pupils will have to work as part of a team and continuously problem solve, they will encounter problems such as what materials to use and how to make the model sturdy.

Activity 11 Details

Consideration to the windows, doors and roof of the building (texture and colour)

Activity 12 Evaluation

On completion of the large-scale model the pupils reflect and evaluate their creation. The pupils sketch their creation using collage materials. Emphasis should be placed on what materials the building could be made out of. This should influence the pupils' choice of appropriate collage materials.

Resources:

- Local architects
- Information and photos on local environment
- Building materials catalogues
- Selection of modern and traditional buildings
- Information on building construction

Teacher Input:

In the case of Galston Primary the architect/facilitator was commissioned to work alongside the class teacher. Together they oversaw the whole project advising and directing the pupils where needed.

Pupil Input:

As a working group, the pupils discussed the possibilities of creating a building. Throughout the whole project the pupils continuously had to problem solve.

Word Bank:

Scale, proportion, construction, form, shape, light, cladding

Equipment:

Paper, cardboard, pens, pencils, tape, glue, newsprint, thick card, laminate, tacks, coloured paper, paint