

Designing Popular Activities: Build your own town: photocopyable nets for model buildings

If you ask your pupils about the types of buildings they would like to live in, you will be surprised by the freshness and ingenuity of their answers. Whilst many adults dream of cottages or older town houses, children are just as likely to plump for high-rise buildings (better views and they could live near all their friends), or futuristic houses with all sorts of inbuilt gadgetry and entertainment systems. Working with pupils to design and create



model buildings (or even model villages, towns and cities) is an excellent way to explore their attitudes to the built environment, get them to think about it from the point of view of other community members, consider planning issues and much more. And, if you are looking for a fun activity that combines art and design, technology and citizenship, along with maths, geography and a whole range of other curriculum subjects, making model townscapes is for you.

Building model towns is also a great way for children to develop their observational skills and to learn more about the buildings in their communities. For example, primary school children working with the Building Exploratory created a huge three-dimensional map of Hackney, making buildings out of cardboard, paint, coloured paper and similar materials. It was a major project, but it can be adapted to suit your needs.

You don't need complicated materials to get started. Paper, card, glue, paints, foil and similar items, plus a supply of differently-sized boxes will get you started (if you need a good

supply of these items, take a look at the article on Scrapstores on p. 3.9). Before you start, work with pupils to map out the streets of your town on a base – you can then design and add the buildings at roughly the correct scale. You don't have to recreate your own neighbourhood – there are many ways in which you can incorporate model making into your teaching. For example, you could try working with pupils to:

- Design a city especially for children (pupils could also design a “dream house” as part of this project).
- Redesign the area around the school in ways that would improve the quality of life for different groups (eg families, the elderly, teenagers etc).
- Design an ecologically-friendly city or town.
- Recreate or design a city in a different country or continent. If you have a partner school abroad, you could work with its pupils to recreate their local area.
- Recreate a townscape of your area 100, 200 or 300 years ago. Use old maps to plot out the streets that existed during your chosen era.
- Design a town that might be built on the moon.
- Create towns from descriptions in books (eg Philip Pullman's *His Dark Materials* trilogy).

Another approach you can take is to create buildings using nets, such as the ones we have provided on the following pages. You can use a photocopier to scale these up or down, and they are excellent for helping pupils discover how mathematics is used to create structures. You can also help pupils to create their own nets: they can be designed on computer graphics packages or with old-fashioned graph paper and a pencil. You'll notice that we haven't provided a net of a school, so why not try creating some of your own buildings? And let us know all about your projects – if you send us some photos, we could feature your work in next year's Teacher's Pack.



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CASE STUDIES

BUILDING A BIO TOWN

Pupils from Luckwell Primary School in Bristol worked with English Heritage to help develop their understanding of archaeology and planning. The aim was to design a sustainable “Bio Town” in another country, but also to decide what to do if an archaeological discovery was made whilst the town was being built.

Pupils were involved in a wide range of work, including a visit to Bristol to study the city’s layout and to discover what problems, such as pollution, existed. An archaeologist visited the school, and the pupils took on the roles of developers and architects to debate the issues surrounding the discovery of the archaeological site.

When pupils decided to design a museum to hold the archaeological finds, an architect spent half a day working with the class and showed them how model making is vital to the process. The pupils made 3-D models of their designs and other classes and parents were invited to come along and see their work.

SOURCE:

● **WEB:** www.english-heritage.org.uk/server/show/nav.001003004005002

LEGO BUILDINGS

In 2005, pupils from Crakehall Primary School in North Yorkshire used 7,000 Lego bricks to build a model town in their school hall. The project gave children the chance to develop town planning skills and each pupil built a model of their own home. They also added cars, roads gardens and a football pitch, so that the Lego people had all the amenities they needed.

SOURCES:

● **WEB:** www.crakehall.n-yorks.sch.uk/http://archive.thisisthenortheast.co.uk/2005/3/1/21386.html

LEARNING ABOUT STRUCTURES

In March 2005, pupils from 16 secondary schools in the Bristol area took part in a project run by the University of Bristol’s Earthquake Engineering Research Centre and At-Bristol. Using medium density fibreboard, paper, string and glue, teams of pupils designed and built small-scale model buildings that had to withstand the artificial earthquakes generated by a special shaking-table. In this way, participants were able to learn how buildings behave during earthquakes, and why some of them collapse more easily than others.



MODEL COMMUNITIES

Year 5 pupils at North West London Jewish Days School created models that represented the prayer room, a succah and other details of their school. They were among children from six primary schools who took part in a model-making project, designed to tell the story about what makes their schools special and what it is like to grow up in the London Borough of Brent. The project was designed by Brent Heritage Services and the pupils’ work was installed at the local Grange Museum. Pupils were particularly proud that their models were put on public display.

FURTHER RESOURCES

● THE BUILDING EXPLORATORY

The Building Exploratory is an interactive exhibition exploring buildings and the built environment. It is the first education and resource centre in the UK to do this.

● **WEB:** www.buildingexploratory.org.uk

● ARCHITECTURE CENTRE NETWORK

The Building Exploratory is one of many different architecture centres across the country. To find the one nearest to you visit

● **WEB:** www.architecturecentre.net

● ARCHITECTURE WEEK

Organised by The Royal Institute of British Architects, Architecture Week takes place in June. The website also contains resources for schools, such as lessons plans for building structures at Key Stage 2.

● **WEB:** www.architectureweek.org.uk
www.architectureweek.org.uk/education/buildastructure.asp