

Building buildings

Primary: (ages 7 – 11)

Visual arts

Students construct a model of a house according to their own imagination. They consider changes in architectural design over time and what makes the difference between conventional and unusual houses. They then transform cardboard into an unusual house, whilst also carefully assessing if they have included all of the necessary features of a house and have created an attractive and functional space to live in.

Time allocation 2 lesson periods

Subject content Develop aesthetic and functional qualities of visual designs
Learn about history of architecture
Develop spatial imagination and technical skills

Creative and critical thinking This unit has a **creativity** and **critical thinking** focus:

- Play with unusual and radical design ideas and question convention in architectural design
- Create, appraise, and consider several perspectives on visual art that shows expressive qualities

Other skills Communication

Key words architecture; local history; design; modelling; colour; housing; buildings; cardboard

Products and processes to assess

Students create and present a model of a house. At the highest levels of achievement their output is imaginative and unusual with high levels of personal elements whilst still maintaining the necessary features and form of a house. They are able to reflect thoughtfully on architectural design and what makes a building conventional or unconventional, and challenge ideas to their limits before making final choices. They show clear awareness and understanding of the strengths and limitations of their own and others' work, of areas of personal novelty, and of why final choices have been made. They are open to the feedback and critiques of others where relevant.

Teaching and Learning plan

This plan suggests potential steps for implementing the activity. Teachers can introduce as many modifications as they see fit to adapt the activity to their teaching context.

Step	Duration	Teacher and student roles	Subject content	Creativity and critical thinking
1	Lesson period 1	<p>The teacher introduces the subject of old and modern day housing using pictures of a variety of old and modern buildings and houses</p> <p>Students participate in a discussion describing and comparing differences between past and modern lifestyles.</p> <p>Teacher can challenge students to use what they know about history to brainstorm some of the features of old and modern houses. Which of these features are indispensable and which could be different and why? What has changed about the design of houses and why? What might change in the future and why?</p>	Discussing the design and architecture of houses and changes in this over time	<p>Making connections between art and design principles, housing and history</p> <p>Generating and playing with unusual ideas when preparing to create a piece of visual art</p>
2		<p>Students' task is to create a house – an old one or a modern one. Students are divided into two groups – one group prepares an old house and the other group a modern house with all its components.</p> <p>Alternatively, the teacher can ask students to envision and create unusual and radical old and modern houses. The teacher can circulate, encouraging students to be bolder and discussing with students what makes their house different or unusual. Does it have everything that a house needs even though it is also unusual?</p>	Developing technical skills: drawing, designing, making and assembling components	<p>Identifying and questioning convention in the design of housing</p> <p>Playing with unusual and radical visual arts ideas</p> <p>Creating visual art that shows expressive qualities or personally novel ways to engage a subject matter</p> <p>Reflecting on chosen expressive choices of a visual arts piece relative to possible alternatives</p>
3	Lesson period 2 (this may be extended if time is available)	The teacher observes, respectively corrects effects of individual or group work: selection of spatial components, layout. As students complete the task they are prompted to further consider what elements are needed, how they should be arranged and integrated, and the colour design and other design principles. How can they make the house an attractive and practical place to live in? Where are the strengths and limitations of their design so far and how can they address these?	<p>Developing technical skills</p> <p>Reviewing and improving designs</p>	<p>Creating visual art that is personally novel</p> <p>Appraising strengths and limitations and refining expressive choices</p>

4	Exhibition and presentation of completed works. Students are asked to reflect on and evaluate creative solutions in design, construction of shapes and their artistic expression, creativity of selection and combination of elements, colour design, and integration.	Communicating the features of their design	Considering perspectives and reflecting on chosen expressive choices
---	--	--	--

Resources and examples for inspiration

Web and print

- Pictures of an open-air museum and traditional architecture on ICT
- Pictures of modern houses, buildings and constructions on ICT

Other

- Small and large boxes, glue, medical sticks
- Cotton wool, tempera paints, cups and various waste materials

Opportunities to adapt, extend, and enrich

- Students could be asked to create a house of the future as a follow-up activity
- Further links could be made with local history by going on an architectural tour of the local area
- An architect or equivalent expert could be invited to speak to the students
- Further activities from the OECD CERI project *Fostering and assessing creativity and critical thinking skills* that cover the use of mathematics in the design of buildings and architectural plans include *Mathematics for a new Taj Mahal* and *The Math-Mystery of the Egyptian Pyramids*

Creativity and critical thinking rubric for visual arts

• Mapping of the different steps of the lesson plan against the OECD rubric to identify the creative and/or critical thinking skills the different parts of the lesson aim to develop

	CREATIVITY Coming up with new ideas and solutions	Steps	CRITICAL THINKING Questioning and evaluating ideas and solutions	Steps
INQUIRING	Make connections to other visual arts concepts and media or to conceptual ideas in other disciplines	1	Identify and question assumptions and conventional rules in a piece of visual art (content, style, technique, colour, composition, etc.)	2-4
IMAGINING	Play with unusual and radical visual arts ideas when preparing or creating a piece of visual art	1,2	Consider several perspectives on the content, technique or expression of a piece of visual arts	4
DOING	Create visual art that shows expressive qualities or personally novel ways to engage a subject matter	2,3	Explain both strengths and limitations of a piece of visual arts justified by aesthetic, logical and possibly other criteria	3,4
REFLECTING	Reflect on steps taken in creating a piece of visual art and on its novelty compared to conventions	4	Reflect on the chosen expressive choices of a visual arts piece relative to possible alternatives	2,4