

# Architecture Adventure

## Pre-visit resource for Primary School Educators

### Introduction

The *Architecture Adventure* workshop presents to Primary students a clear and engaging overview of the importance of architecture, the role it plays in the local and global environment, and how ArtScience Museum represents an iconic building with noteworthy aesthetic and features. All students will receive an Activity Book which explores these areas in detail. The themes in the Activity Book can be explored further back at school.

### Aims and Objectives

#### AIMS

- To provide a fun, energising and memorable workshop on the subject of architecture
- To introduce basic architectural terms and vocabulary
- To encourage students to see the relevance of architecture to themselves and to Singapore

#### OBJECTIVES

- Identify, understand and create key architectural features
- Describe and appreciate major buildings and make links between architecture and its influences
- Apply newly acquired knowledge to design and construct their own structure



## Workshop content

Fun icebreaker game with an introduction to iconic architecture from around the world. After the warm-up activity, the Docents hand students their activity books and start the tour.

### THE ACTIVITY BOOK CONSISTS OF THE FOLLOWING COMPONENTS:

- Introduction - ArtScience Museum (Join-the-dots activity; word puzzle)
- Postcard drawing and writing activity
- Green Features ('Name the green features' activity)
- The Art of Architecture (Speed-sketching activity)
- Supporting the Structure (Construction Solutions activity)
- Design Brief (with building activity) and evaluation

The students fill in the different the activities within their book as they progress around ArtScience Museum on their tour.

### SUMMARISED TOUR CONTENT

- Standing outside ArtScience Museum (weather permitting), the Docent provides a brief introduction about the building and to architect Moshe Safdie's involvement as the designer of the building.
- Students have a close-up look at the Oculus, a dish-like roof that collects rainwater and drains it through a hole in the centre of the building, creating a waterfall that feeds into a pond at the basement level.
- Students have the opportunity to view in the original Moshe Safdie's initial sketches of ArtScience Museum.

The group will then head back to the Education Space (B1) where they discuss how the architects and engineers found solutions to support the irregular structure of ArtScience Museum. Examples of these are given through digitally-animated demonstrations.

### DESIGN AND CONSTRUCTION ACTIVITY

Using the versatile construction resource 'Bionic Blox', students work in teams of four or five to plan, design and construct a new and iconic HDB housing estate. A representative from each team will explain to the rest of the group the concept of the building at the end of the activity.



## Curriculum links

### ART

The art syllabus framework is based upon the premise of seeing, expressing and appreciating. The workshop supports this approach through specifically designed activities and discussions. The material presented on iconic buildings in the world in the ice-breaker activity allows students to look at and analyse buildings, and to develop their understanding of architectural forms. The creative, engaging follow-on discussions will encourage students to express opinions about architecture and appreciate the buildings shown to them. The art syllabus and the workshop share the following outcomes:

#### Outcomes:

- Enjoy looking at and creating art
- Identify simple visual qualities in what they see around them
- Increase visual literacy
- Give students a sense of their own history and culture
- Talk about what they see and experience
- Raised levels of self-confidence and a sense of achievement

### SCIENCE

The science syllabus requires students to look at science in their daily lives, in society and also in the environment. The activities are commensurately layered for students to scale up their understanding of architecture in relation to themselves, society and finally the environment. The links between architecture and nature are pointed out. This also underlines the curriculum link to the module on 'Interactions: man and his surroundings'. Discussions can be developed on the lotus flower shape of ArtScience Museum and thus link into the 'Plant systems' unit. The simple discussion of adequate structural support in the construction of a building addresses the basic concept of weight bearing, forces of energy, and balance. The science syllabus and the workshop share the aim of developing student interest in and stimulating curiosity about their environment.

### SOCIAL STUDIES

The social studies syllabus framework is develops a basic understanding of the relationships between people, places and the environments. This includes examining the students' immediate environment, the school and neighbourhood. The workshop takes this as a starting point and addresses how architecture is an essential component of our everyday environment. The syllabus encourages students to appreciate how things change and develop over time. This is reflected in the workshop's exploration of iconic buildings, from the Great Pyramid of Giza (2560 BCE) up to the present day with ArtScience Museum. The discussion of the variety of materials used in construction and the use of environmentally friendly materials in ArtScience Museum informs students about responsible uses of resources.

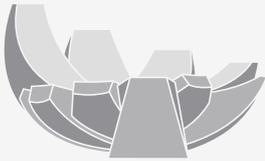


## LITERACY AND LANGUAGE

Students will gain an appreciation of architecture from a personal, cultural and societal viewpoint. They will explore concepts such as form and function, and acquire knowledge about various materials used in construction. This is designed to improve their visual and verbal literacy and equip students with a vocabulary of key architectural terms and terminology. Students will gain a greater understanding and appreciation of the key components of architecture. This will give them confidence to express opinions and discuss their ideas about the impact of architecture on our lives and environment, and improve their language skills generally.

## NATIONAL EDUCATION

By taking students out of the confines of the classroom, they link the theoretical with the experiential - injecting life and meaning to the learning experience so it becomes real and concrete. Thus, through participating in *Architecture Adventure*, students will get to understand the role ArtScience Museum plays in being part of the large Marina Bay Sands integrated resort, its environmentally friendly features and iconic design, located strategically on the bay in Singapore.



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