

**ARCHITECTURE
PLAYSHOP #3**

Climate Change Challenge

Rising Seas and Cities

Teaching Guide
for Session Three

INTRODUCTION

As the Earth's temperature has warmed due to climate change, the northern and southern polar ice caps have begun to melt at an alarming rate. Because of this, some of the Earth's coastal regions are at risk from flooding, while others could be entirely submerged by water. Though some parts of the world may not be directly threatened by rising sea levels, they can be indirectly impacted by changes in weather patterns that will occur as a result of changing oceans. This session informs children about the impacts of global warming on water levels and the man-made environment. Venice, a city built on water that has long struggled with floods and sinking, will be the reference. The session will explore Venice in order to introduce design concepts that builders, architects and engineers have turned to protect at risk regions from sea level rise. Children will be encouraged to envision and share their own solutions to protect buildings from flooding.

IN THE PLAYSHOP

1 Listen: Read Aloud Text (approx. 30 minutes)

Educators can begin the session with a read aloud of the suggested text, or another best suited to the participants' age group to introduce session concepts (see the read-aloud link provided on the website). Facilitate rich responses and discussions by encouraging participants' questions, observations, and personal connections, and/or by using guided prompts.

Suggested Text

Thomas, Kellie, and Belle Wuthrich. *Rising Seas: Flooding, Climate Change and Our New World*. Richmond Hills: Firefly Books Limited, 2018.

Rising Seas is another non-fiction text that is both fascinating and disconcerting—effectively conveying a sense of urgency to young readers about rising sea levels. One interesting aspect of the book is that the factual information it presents covers a variety of different countries, areas, and cultural landmarks. Furthermore, it shows how many different places on the Earth will be affected by flooding in the near future.

The writing is fact-focused and number heavy, which will not suit young readers but might appeal to older ones. Because the book is aimed at an older audience (9-13 years old) it can be used to impart a sense of urgency without being alarmist. An important addition to the text is that it offers solutions that may counter some of the distressing realities it presents.

2 View: Animation Video

(approx. 3 minutes)

Have the students watch the animation video of the session. This video is used to facilitate the communication of the core topics of the session.

For educators with limited printing capacity or with younger children, the animation video can be used to replace step 3, since it provides a visual explanation of the same topics that are addressed in the **Read: Booklet**.

3 Read: Booklet (approx. 30 minutes)

Read aloud, or have students read, the session booklet (e.g., independently, in pairs or groups). Discuss the session ideas together and work through either the simple (e.g., designing and building), or bolded vocabulary suggestions (e.g., architecture) to build understanding.

4 Colour: Pages (approx. 30 minutes)

The colouring booklet provides an interactive drawing opportunity, where the line drawings that are offered reflect the types of constructions shown in the View: Animation and the Read: Booklet. Have the students stop, think and relate the examples with their flood-proofing method. Children may choose to colour any number of pages from the options offered to them in the colouring booklets. The colouring pages do not need to be completed on the spot; students are encouraged to take them home.

5 Make!: Hands-On Activity Guide (approx. 30 minutes)

In this activity, participants will build their own flood-proof house using different sizes of cardboard boxes. Children will draw on ideas for building on or near water presented in the Read and Draw booklet (e.g., raising houses, floating buildings). They will also be encouraged to use their imaginations to propose new solutions for houses to resist flooding.

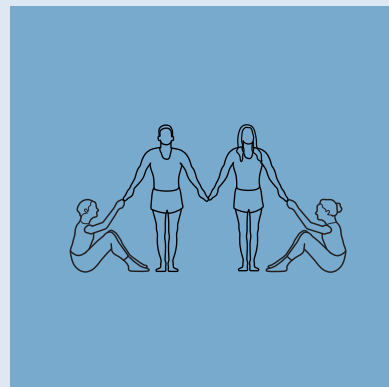
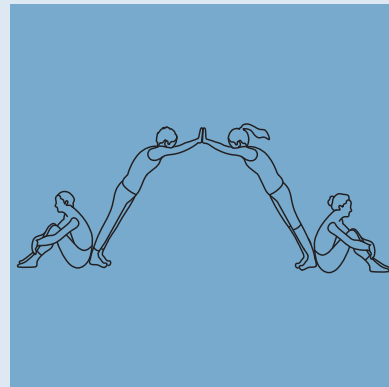
BEYOND THE PLAYSHOP

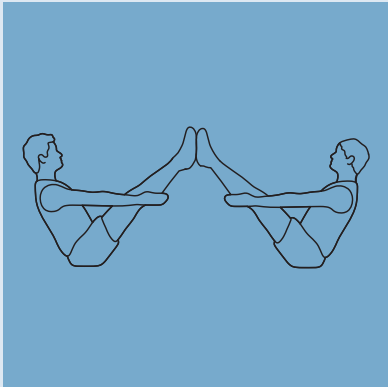
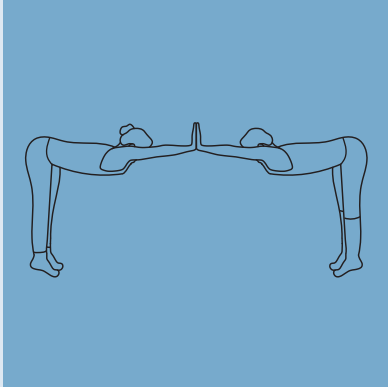
Supplementary Activity Suggestions to Extend Learning Outside of the Sessions

Movement exercise

1 Have students play with colourful blankets or movement scarves to create rising and receding waters that they must pass over and under to explore changing water levels, or use their bodies to roll like tidal waves. Play wave sounds to help them orchestrate their movements.

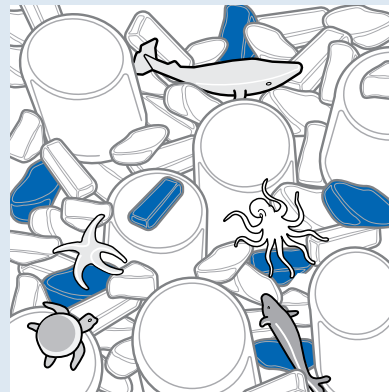
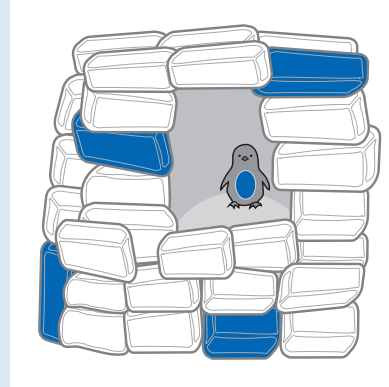
2 Encourage students to use their bodies to build structures that help us move over waterways, such as bridges and arches!





Building with Ice:

Have students build their own ice structures to understand the composition of ice and timeframes for melt, or construct sensory 'ice worlds' to visualize the impact of melting ice on polar animal communities.



Visual Arts:

Explore Olafur Eliasson and Minik Rosing's art installation *Ice Watch*, which brings Greenlandic Sea ice to city dwellers to encourage tactile, sensory connections to the concept of sea ice melt. Watch and discuss the installation videos that have been created showing the many ways viewers have engaged with the project (e.g., https://www.youtube.com/watch?v=Tpe4o9_n8AM)