

Welcome to the Materials and Structures Unit

In this unit, students develop their understanding of materials and structures through a variety of explorations and investigations about various structures and their parts, what materials are best suited to particular structures, what makes structures strong and stable, and how to make their own strong structure. Multiple program components will engage students and support learning of the specific science concepts.

Student Magazine

The Student Magazine will support students' exploration of materials and structures. The bright, colourful photographs, detailed illustrations, and different text features will engage students and give them multiple opportunities to explore a variety of concepts. A digital version of the magazine is available on the Teacher's Website to be used with an Interactive Whiteboard.

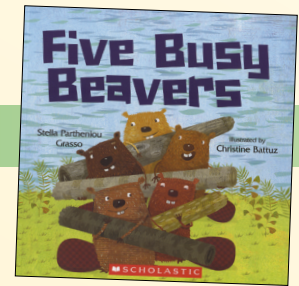




Science Read Alouds

Two Read Aloud texts allow you to introduce and engage students with science concepts. *Five Busy Beavers* by Stella Partheniou Grasso and Christine Battuz is a delightful counting book that uses rhyme to explore the steps in building a beaver dam and which can be used to introduce shapes and forms that are part of natural structures.

The Little Knight Who Battled a Dragon by Gilles Tibo and Geneviève Després invites exploration of the properties of some common materials and an evaluation of their suitability for use in structures such as a mechanical horse and appropriate tools for taming a fire-breathing dragon.



Anchor Video

The Anchor Video: *Materials and Structures*, found on the Teacher's Website, introduces students to essential questions about concepts including identifying natural and human-made structures, considering how materials are suitable for a structure's purpose, and how certain shapes and forms can make structures stronger and more stable. The video gives a number of examples to activate students' thinking and to promote questions.

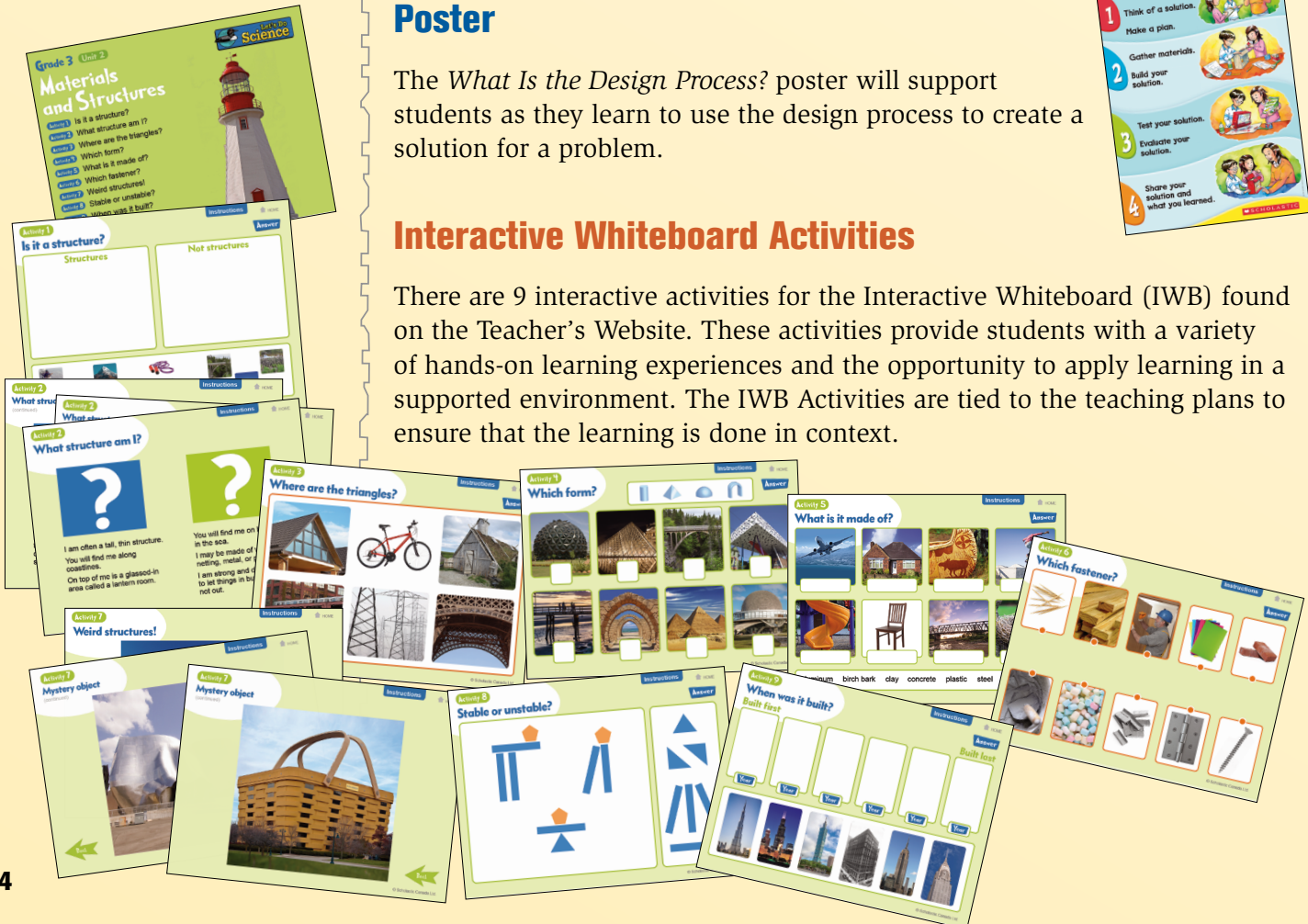
Poster

The *What Is the Design Process?* poster will support students as they learn to use the design process to create a solution for a problem.



Interactive Whiteboard Activities

There are 9 interactive activities for the Interactive Whiteboard (IWB) found on the Teacher's Website. These activities provide students with a variety of hands-on learning experiences and the opportunity to apply learning in a supported environment. The IWB Activities are tied to the teaching plans to ensure that the learning is done in context.





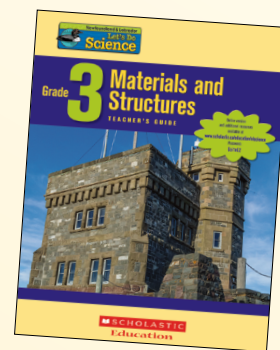
Science Library

The Science Library provides a collection of colourful and engaging non-fiction and fiction texts at a variety of reading levels. These texts support students as they explore various science concepts and skills. See the *Science Library Guide* in the Teacher's Guide Binder or online for brief summaries, science connections, and suggested reading approaches (e.g., Independent Reading and Read Aloud).

Teacher's Guide

This guide provides detailed suggestions for using all of the program components including the Student Magazine, Anchor Video, reproducible Blackline Masters (BLMs), and IWB Activities with your students. Visual cues such as book covers, thumbnail images, and icons highlight the use of each program component along with tools such as Science Folders and Journals, the Word Wall, and the I Wonder Wall. Strategies and tools you need to assess students' learning, such as rubrics and checklists, are also included.

Embedded within the teaching plans are connections to Guided and Shared texts from *Literacy Place for the Early Years*, Grade 3 that relate to the concepts in *Materials and Structures*.



Teacher's Website

In addition to the Student Magazine, Anchor Video, and IWB Activities mentioned above, the Teacher's Website provides a digital copy of the Teacher's Guide for this unit along with access to an image bank containing the variety of photographic images found in the Student Magazine and IWB Activities. These images may be used by teachers to create new IWB Activities or for students to incorporate into presentations. Find the Teacher's Website at

scholastic.ca/education/nlscience

Password: Sci1nL2

