# **GRADE 2 PLTW**

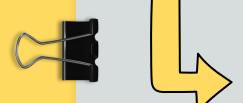








MATERIALS SCIENCE: Properties of Matter

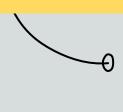


THE CHANGING EARTH





**LIVING THINGS: Diversity of Life** 











## **GRADE 2 PLTW**



## MATERIALS SCIENCE: Properties of Matter

In this module, students investigate and classify different kinds of materials by their observable properties, including color and texture, and heat conduction. Students learn about states of matter and properties of materials. They investigate which materials are good insulators and which are good conductors. After building their knowledge and skills throughout the module, students determine the best materials to use as they design a prototype to keep an ice pop frozen for at least 30 minutes.









#### THE CHANGING EARTH

Students explore how the surface of the Earth is always changing. They are introduced to different types of maps and explore how these maps convey different information about the world in which we live, including where water is found on Earth. Angelina, Mylo, and Suzi introduce the design problem when faced with the challenge of helping a community threatened by a potential landslide. Students investigate the different forces that shape the surface of the Earth and design solutions to limit the impact of erosion on this fictional community, which is located at the bottom of a hill that was recently destabilized by a fire.







#### **MATERIALS SCIENCE: Form and Function**

Students research the variety of ways animals disperse seeds and pollinate plants. They expand their understanding of properties of matter as they consider the form and function involved in seed dispersal and pollination. Students are introduced to the design problem when Angelina, Mylo, and Suzi are tasked with starting a wildflower garden on an expansive plot outside of their school. To solve the design problem, students apply their knowledge and skills to design, build, test, and reflect on a device that mimics a way in which animals disperse seeds or pollinate plants.











### **LIVING THINGS: Diversity of Life**

Students learn about the diversity of life in habitats, or biodiversity. They observe different habitats and the living things that grow in them. They engage in three scenarios to learn the importance of having many different organisms in a habitat. Next, students investigate how much water and sunlight plants need to grow in an environment. They use the design process to design a planter garden to grow in a specific environment.

