



# EbD TEEMS NxtGen – Grade 2

## At-A-Glance

**Intended Audience: 2<sup>nd</sup> Grade**

**Course Length: 6-8 weeks**

**From Nature to Me** engages young learners in hands-on inquiry and design as they explore biomimicry (one of the most important challenges of the 21<sup>st</sup> century) and learn how we can obtain from nature the tools necessary for scientific discovery. This Building Block integrates concepts of science, technology, engineering, and mathematics through the environmental context of learning about bees and researching why they seem to be disappearing. By utilizing an experiential approach, students collaboratively begin to explore how animals spread seeds and how their environment is then suitable for habitation. Following guided inquiry activities, a design challenge allows students to create a device that will travel on land or air to disperse seeds. Thus, they will be engineering the tools of scientific discovery. This experience serves as a real-world inspiration for students to connect their learning with both the present and the future.

### Objectives

- Distinguish between the natural world and the human-made world.
- Identify tools and techniques that people use to help them complete tasks.
- Describe how the use of tools and machines can be helpful or harmful particularly to the environment.
- Describe a product that has been made to meet a specific human need or want.
- Recognize that everyone can design solutions to problems.
- Describe design as a creative process.
- Apply a design process that includes identifying a problem, looking for ideas, developing solutions, and sharing solutions with others to solve a technological problem.
- Construct an object using the design process.
- Describe a manufacturing process or system used to produce a specific product in quantity.
- Generate questions about objects, organisms, or events that can be answered through scientific investigations.
- Design, conduct, and/or describe the steps of an investigation to test one variable.
- Identify appropriate tools or instruments for specific tasks and describe information they can provide (e.g., measuring: length – ruler, volume – beaker, temperature – thermometer).
- Categorize or sort objects using physical characteristics of the materials from which they are made.
- Identify earth resources and materials that come from the environment to meet the needs and wants of humans.
- Use physical properties (e.g., shape, size, color, texture, temperature, volume) to describe matter.
- Identify science as a way of answering questions and explaining the natural world.
- Identify technology as a way of inventing tools and techniques to solve human problems.
- Identify resources that come from basic materials (e.g., air, water, soil) and their uses.
- Describe how the effects of new ideas, new ways of doing things, and inventions can be good or bad.
- Identify contributions that humans have made throughout the history of science and technology.
- Create bar graphs to show specific amounts.
- Ask and answer who, what, where, when, and how questions about key details in a text.
- Identify the main topic and the focus of specific paragraphs in a text.
- Write informative text in which a topic is introduced, some facts supplied to develop points, and a conclusion is provided.
- Report on a topic with appropriate facts and relevant, descriptive details while speaking clearly at an understandable pace.
- Recognize that manufactured products are designed.

