



# Tropical Explorer School Program

## K-3 Grades Curriculum

The *Tropical Explorer School Program* focuses on the unique features of the tropical rainforest. Students will explore characteristics of the tropical rainforest through comparing it to Wisconsin's deciduous forests. Students will engage with the distinctive plants and animals found in tropical rainforests through hands-on, guided learning stations and go on a guided tour through our indoor tropical conservatory. A self-guided scavenger hunt also allows students to have time to explore the tropical habitat on their own.

The primary goals of the *Tropical Explorer School Program* are:

- To introduce students to the basic characteristics of a tropical rainforest habitat through guided learning stations and tour of Bolz Conservatory.
- To provide students with an authentic learning experience involving inquiry-based and hands-on learning methodologies.
- To enrich classroom learning by supporting the Wisconsin Model Academic Standards, the Metropolitan Madison School District (MMSD) K-8 Science Scope and Sequence, and the Next Generation Science Standards.

### **Next Generation Science Standards:**

- Life Sciences
  - 5-LS2-1, 3-LS3-2, 3-LS4-3, 3-LS4-4, 2-LS2-1, 2-LS4-1, K-LS1-1, 1-LS1-1
- Earth Sciences
  - 5-ESS2-1, 5-ESS3-1, 3-ESS2-2, K-ESS3-1, K-ESS3-3
- Physical Sciences
  - 5-PS3-1, K-PS3-1

### **INTRODUCTION**

Students are introduced to the *Tropical Explorer School Program*. Through visual examples, physical demonstrations, and models, students define the terms "habitat," "deciduous forest," and "tropical rainforest." Students are also introduced to the seasonal differences of each habitat.

- **Wisconsin Standards for Agriculture, Food, and Natural Resources:**
  - NR 2.a.1.e
- **Wisconsin Model Early Learning Standards:**
  - A.EL.2
- **Wisconsin's Model Academic Standards for Environmental Education:**
  - B.4.6
- **Wisconsin Standards for Health Education:**
  - (PK-2) 1:1:A1, 1:1B2
- **Wisconsin State Standards for Literacy:**
  - Speaking and Listening 1 (K-2), 2 (K-1), 3 (3-5)
- **Wisconsin Model Academic Standards for Science:**
  - A.4.1, A.4.2, C.4.2, F.4.1, F.4.2

### **MMSD K-8 Science Standards:**

- Kindergarten Life Sciences *Trees*
- Grade 1 Life Sciences *New Plants*
- Grade 2 Life Sciences *Air & Weather*
- Grade 3 Life Sciences *Structures of Life*
- Grade 5 Life Sciences *Environments*

## LEARNING STATIONS

### TEMPERATURE

This learning station examines the reasons for the seasons and names the major seasons of the tropical rainforest and the Wisconsin deciduous forest.

- **Wisconsin's Model Academic Standards for Environmental Education:**
  - A.4.1, A.4.2, A.4.3, A.4.4, B.4.1, B.4.6
- **Wisconsin State Standards for Literacy:**
  - Speaking and Listening 1 (K-2), 2 (K-1), 6 (K-2), 3 (3-5)
- **Wisconsin Model Academic Standards for Science:**
  - C.4.1, C.4.2, C.4.7, C.4.8, E.4.4, E.4.5, E.4.6, F.4.4
- **Wisconsin's State Standards for Social Studies:**
  - Geography 1.a.1 (K-2), 1.a.4-5 (3-5)

### MMSD K-8 Science Standards:

- Kindergarten Life Science *Analyzing Animals*
- Grade 1 Physical Science *Balance & Motion*
- Grade 2 Earth Science *Air & Weather*
- Grade 8 Earth Science *Planetary Science*

### LIGHT

This learning station provides students with tactile activities that illustrate the layers of a tropical rainforest and the animal life that lives in the different layers of a rainforest.

- **Wisconsin Standards for Agriculture, Food, and Natural Resources:**
  - AS2.a.1e, NR1.b.1.e, NR2.c.2.e, PS1.d.2.e, PS2.a.1.e
- **Wisconsin's Model Academic Standards for Environmental Education:**
  - A.4.2, A.4.4, B.4.1, B.4.6
- **Wisconsin State Standards for Literacy:**
  - Speaking and Listening 1 (K-2), 2 (K-1), 3 (3-5)
- **Wisconsin Model Academic Standards for Science:**
  - C.4.1, C.4.2, E.4.5, F.4.2, F.4.4
- **Wisconsin's State Standards for Social Studies:**
  - Geography 1.a.1 (K-2), 1.a.4-5 (3-5)

### MMSD K-8 Science Standards:

- Kindergarten Life Science *Analyzing Animals, Trees*
- Grade 1 Life Science *New Plants*
- Grade 3 Life Science *Structures of Life*

### RAINFALL

This learning station focuses on identifying the tropical rainforest water cycle and annual average rainfall in the tropical rainforest and in the Wisconsin deciduous forest.

- **Wisconsin Model Academic Standards for Environmental Education:**
  - A.4.1, A.4.2, A.4.3, A.4.4, B.4.1, B.4.7
- **Wisconsin State Standards for Literacy:**
  - Speaking and Listening 1 (K-2), 2 (K-1), 3 (3-5)
- **Wisconsin Model Academic Standards for Science:**
  - A.4.1, C.4.1, C.4.2, E.4.5, E.4.6, F.4.2, F.4.4

### MMSD K-8 Science Standards:

- Kindergarten Life Science *Trees*
- Grade 1 Life Science *New Plants*
- Grade 2 Physical Science *Solids & Liquids*
- Grade 2 Earth Science *Air & Weather*
- Grade 3 Life Science *Structures of Life*

## GUIDED CONSERVATORY TOUR

Students participate in a guided tour and scavenger hunt through the Bolz Conservatory as part of the



*Tropical Explorer School Program.* The tour provides students with a unique opportunity to engage their senses as they see, hear, feel, and smell a tropical rainforest habitat. During the tour students learn about products of the rainforest and explore different layers of the rainforest.

- **Wisconsin Model Standards for Agriculture, Food, and Natural Resources:**
  - BT2.f.6.e, FPP1.a.1.e, FPP4.b.2.e, FPP4.b.3.e, NR1.a.1.e
- **Wisconsin Model Early Learning Standards:**
  - C.EL.1, F.4.4, C.4.2
- **Wisconsin State Standards for Literacy:**
  - Speaking and Listening 1 (K-2), 2 (K-1), 3 (3-5)
- **Wisconsin's Model Academic Standards for Physical Education:**
  - Understanding Physical Activity and Well Being D.4.1; Respectful Behavior F.4.1, F.4.2

**MMSD K-8 Science Standards:**

- Kindergarten Life Sciences *Trees*
- Grade 1 Life Sciences *New Plants*
- Grade 3 Life Sciences *Structures of Life, Earth Materials*