



Windham Academy
Public Charter School

1 Industrial Drive
Windham, NH 03087
603-236-7900

Matthew Castonguay
Superintendent/Executive Director
Sara Amacio
Director of Student Services
Rosemary Coughlan
Student Services Coordinator
Bethany Laham
Administrative & Business Assistant

STEM Curriculum

(Updated December, 2023)

Grade K Curriculum Resources:

1. **[Vivify STEM:](#)**
 - A. “Who is an Engineer or Scientist” STEM Career Game: Lessons All Letters A-Z (each letter a lesson or multiple lessons)

2. **[Core Knowledge Units:](#)**
 - A. Pushes & Pulls
 - B. Needs of Plants and Animals
 - C. Computers All Around Us

3. **[Hand2Mind Projects:](#)**
 - A. Ron’s Habitat Adventure
 - B. Ron’s Ramp Adventure
 - C. Sidewalk Safety Exploration

Grade 1 Curriculum Resources:

1. **Vivify STEM:**
 - A. “Stage 1 STEM Lessons”
 - STEM Scavenger Hunt
 - Tower Challenges
 - STEM Task Cards
 - Upstairs Downstairs Brain
 - Building Bricks STEM Moon Base Challenge
 - B. “Stage 1 & 2 Mission to Mars”
 - Up to 36 lessons



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- 2. Core Knowledge Units:**
- A. Sun, Moon, and Stars
 - B. Plant and Animal Survival

- 3. Hand2Mind Projects:**
- A. Seed Rescue Exploration
 - B. Project Park Design
 - C. Coding Mouse Exploration
 - D. Harmonica
 - E. Crab Claw

Grade 2 Curriculum Resources:

- 1. Vivify STEM:**
- A. “Stage 1 STEM” - Up to 7 lessons/projects
 - B. “Careers & Technology” - Up to 3 lessons/projects
 - C. “Stage 2 STEM Physical Science” - Up to 4 lessons/projects
 - D. “Stage 2 STEM Life Science” - Up to 7 lessons/projects
 - E. “Stage 3 STEM” - Animal Habitat & Biomes STEM Diorama

- 2. Core Knowledge Units:**
- A. Simple Machines
 - B. Organisms & Their Habitats
 - C. Electricity & Magnetism

- 3. Hand2Mind Projects:**
- A. Wild Feet Exploration
 - B. Sound Bite Exploration



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- C. Wrecking Ball
- D. Erosion Jar
- E. Butterfly Pollinator

Grade 3 Curriculum Resources:

1. Vivify STEM:

- A. “Stage 1 STEM” - Up to 2 lessons/projects
- B. “Stage 1 & 2” Trip Around the World!” - Up to 11 lessons/projects
- C. “STEM Careers” - Up to 2 lessons/projects
- D. “Stage 2 & 3 STEM Ocean Study” - Up to 4 lessons/projects

2. Core Knowledge Units:

- A. Investigating Forces
- B. Investigating Matter

3. Hand2Mind Projects:

- A. Spinner
- B. Skydiver
- C. Wave Box

Grade 4 Curriculum Resources:

1. Vivify STEM:

- A. “Stage 1 STEM” - Up to 7 lessons/projects
- B. “Stage 2 STEM Space Science” - Up to 6 lessons/projects
- C. “Stage 2 STEM Earth & Life Science” - Up to 5 lessons/projects
- D. “Stage 3 STEM Prosthetic Leg” - 1 PBL Unit



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- 2. Core Knowledge Units:**
- A. Energy Transfer and Transformation
 - B. Structures and Functions of Living Things

- 3. Hand2Mind Projects:**
- A. Turtle Shell

Grade 5 Curriculum Resources:

- 1. Vivify STEM:**
- A. “Stage 1 STEM” - Up to 4 lessons/projects
 - B. “STEM Career Exploration” - Up to 4 lessons/projects
 - C. “Technology: Stop Motion Animation & Toy Factory STEM”
 - D. “Stages 1 & 2 STEM Mission to the Moon” - PBL Unit
 - E. “Stage 3 STEM Moon Habitat” - PBL Unit

- 2. Core Knowledge Units:**
- A. Modeling Earth’s Systems
 - B. Astronomy: Space Systems

- 3. Hand2Mind Projects:**
- A. Seismograph

Middle School Curriculum Resources:

*Grades 6 & 7 follows the entire [Core Knowledge Scope & Sequence](#) for that particular grade level.