Grade 3

HMH Into Science™

Family Curriculum Guide

A parent-friendly overview of what your student will explore this year

About HMH Into Science™

HMH Into Science is a research-based, phenomenon-driven science program aligned to the Next Generation Science Standards (NGSS). Rather than simply reading about science, students **do** science — observing real-world phenomena, asking questions, conducting hands-on investigations, and building explanations supported by evidence. Every lesson follows a five-step Sensemaking Journey that keeps curiosity at the center of learning.

■ Phenomenon-Based Learning

Every unit begins with a surprising real-world phenomenon that students work to explain throughout their lessons — building curiosity and motivation from day one.

■ Hands-On Every Lesson

Students conduct investigations, build models, and complete engineering challenges using simple, safe materials — science is always active, never passive.

■ Think Like a Scientist

Students practice Claims, Evidence & Reasoning (CER) — a structured approach to supporting ideas with data, just like professional scientists do.

Unit-by-Unit Overview

Unit 1

Engineering and Technology

■ What Students Study:

- Design a Solution to a Problem
- The Engineering Design Process: Explore → Make & Test → Improve & Test
- Identifying criteria and constraints for a solution
- Hands-on: Plant Problems and Looking It Over challenges

■ Big Ideas & Skills:

- Engineers identify problems, brainstorm solutions, and improve designs through repeated testing
- Good solutions must meet specific criteria while staying within real-world constraints
- Failure is part of the process — every test teaches something valuable
- Technology is improved over time by learning from what doesn't work

Unit 2

Forces and Motion

■ What Students Study:

- Forces: pushes, pulls, contact forces, and gravity
- Motion: patterns of speed and direction
- Forces That Act from a Distance: magnets and electricity
- Hands-on: Move the Car, Ramp Moves, Solve a Magnet Problem, Build an Electromagnet

■ Big Ideas & Skills:

- Every force has a strength and a direction — both matter for predicting motion
- Patterns in an object's motion can help us predict what it will do next
- Gravity pulls all objects toward Earth, even without touching them
- Magnets and electric charges can push or pull objects without making contact
- Scientists use patterns in data to make accurate predictions

Unit 3

Life Cycles and Inherited Traits

■ What Students Study:

- All Organisms Have a Life Cycle (birth, growth, reproduction, death)
- How life cycles differ across plants and animals
- Plants and Animals Inherit Traits from Their Parents
- Organisms Use Strategies to Be Successful in Their Environment
- Hands-on: Exploring a Change, Monster Traits, Battle of the Beans!

■ Big Ideas & Skills:

- All living things share a common life cycle pattern, though the details vary greatly
- Traits (characteristics) are passed from parents to offspring through inheritance
- The environment can also influence how traits develop — nature and nurture both matter
- Variation within a species increases the chances that some individuals will survive
- Some animals work together in groups as a survival strategy

Unit 4

Organisms and Their Environments

■ What Students Study:

- The Environment Affects Traits — how surroundings shape living things
- Adaptations Aid Organisms' Survival (structures and behaviors)
- Environments Change — and how organisms respond
- Evidence of Past Environments through fossils
- Hands-on: Will They Grow?, How Do Structures Help?, Wild Horses, How Do Fossils Form?

■ Big Ideas & Skills:

- Living things have physical and behavioral adaptations that help them survive in their habitat
- When environments change, organisms must adapt, move, or risk dying out
- Fossils are clues that tell scientists about life and environments long ago
- Understanding past environments helps predict how species may respond to future change
- Biodiversity — the variety of life — is essential for healthy ecosystems

Unit 5 **Weather Impacts**

■ What Students Study:

- We Can Predict Weather — seasonal patterns and weather forecasting
- Severe Weather — causes, effects, and reducing risk
- Types of Climates — how climates differ around the world
- Hands-on: Weather Here and There, The Answer Is Blowing in the Wind, Feel the Heat!

■ Big Ideas & Skills:

- Weather follows patterns that scientists use to make forecasts and help communities prepare
- Climate describes long-term weather patterns for a region, not just one day's weather
- Severe weather events can cause harm — understanding them helps reduce that risk
- Engineering solutions (like storm shutters) can protect people from weather hazards
- Different regions of the world have very different climates and ecosystems

Science Skills Your Child Will Build All Year

■ Asking Good Questions

Students learn to frame testable questions and define problems that engineering can solve.

■ Planning Investigations

Students design fair tests, collect data carefully, and learn to control variables.

■ Using Evidence

Students practice making claims and supporting them with data and reasoning — a skill that carries far beyond science class.

How Families Can Support Learning at Home

■ Ask 'What did you notice today?'

The curriculum uses surprising phenomena — asking your child what surprised them opens great conversations about what they're investigating.

■ Encourage 'I wonder…' thinking

When your child wonders about something in the world, help them frame it as a question that could be tested — that's exactly how scientists think!

■ Look for science everywhere

Weather patterns, plant growth in your yard, pushing a shopping cart — the everyday world is full of the forces, life cycles, and systems your child is studying.