

STEM & Secular Explorer

When your homeschool runs on logic, science, and discovery, every moment is an opportunity to explore, question, and learn. Here's a full-day sample routine you can adapt to fit your family's schedule and interests.

8:30 AM – Morning Spark

- Kickstart curiosity right away.
 - **Observation Prompt:** Place an unusual object (fossil, crystal, microchip) on the table. Ask, "What do you notice? What do you wonder?"
 - Quick brain warm-up: 5-minute logic puzzle or riddle
 - Science Fact Check: Explore "Today in Science" from NASA, NOAA, or Science News for Students

9:00 AM - Core Science & Math Block

- Build conceptual depth with hands-on work.
 - Math: Work through your secular math curriculum (e.g., <u>Beast Academy</u>, <u>Math Mammoth</u>, or <u>Art of Problem Solving</u>)
 - **Science:** Choose an experiment aligned with current topics (e.g., testing pH levels, building a balloon-powered car, observing plant growth under different light conditions)
 - Science Notebook: Sketches, data tables, and reflections go here

11:00 AM - Maker Lab & Engineering Design

- Turn ideas into prototypes.
 - Use LEGO, recycled materials, or a robotics kit (e.g., <u>LEGO Education SPIKE</u>, <u>Makey Makey</u>, or <u>Arduino</u>)
 - Follow the **Engineering Design Process:** Ask \rightarrow Imagine \rightarrow Plan \rightarrow Create \rightarrow Improve
 - End with a 2-minute **Show & Tell** to explain your creation's purpose and function

12:00 PM - Lunch & Science Media

- Fuel the body and the mind.
 - Watch a short video from Crash Course Kids or SciShow
 - Discuss: What was the most surprising thing you learned?

1:00 PM - Nature & Data Walk

Connect STEM with the natural world.

- Head outside with a notebook or tablet
- Track bird species, measure plant growth, or collect water samples for testing
- Use free tools like <u>iNaturalist</u> to log findings and contribute to real-world citizen science

2:00 PM - Critical Thinking & Problem Solving



- Play games like Rush Hour, Set, or Gravity Maze
- Pose an ethical or environmental dilemma: "If we could terraform Mars, should we?" and discuss evidence-based arguments

3:00 PM - Project Time & Reflection

- Let curiosity lead.
 - Work on an ongoing research project, invention, or coding challenge
 - End the day with a quick "What I Discovered Today" journal entry

Tip: Keep this routine flexible. Some days you might deep-dive into chemistry for hours; other days, you might swap Maker Lab for a field trip to a planetarium or engineering museum. The key is to keep inquiry alive.

Help us improve our resources — <u>leave feedback!</u>

