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Fall Science Curriculum Overview

6 Date	Topic	Objectives	Description
Sept. 2	Disease Detectives Germ Scientists	Understand germ spread, prevention, and handwashing.	Featured Hands-on STEM activities include glitter-germ models, surface swabs, and handwashing trials to reveal how illness can move through a group.
Sept. 9	Epidemiology Outbreaks & Testing	Analyze outbreak patterns and simple test results.	Featured Hands-on STEM activities include mapping a classroom outbreak, designing a quarantine zone, comparing mock test cards, and sorting clues to trace a likely source.
Sept. 16	Vaccine and Lab Science	Apply observation, inquiry, and scientific vocabulary to basic dissection science.	Featured Hands-on STEM activities include immune system model creation and a vaccine delivery-device prototype challenge.
Sept. 23	DNA and Genetics	Explain DNA, inherited traits, and basic genetics terms.	Featured Hands-on STEM activities include trait cards, bead-based DNA models, DNA helix activities, genetics labs, and simple family-pattern challenges to make inheritance visible.
Sept. 30	Lab Testing and DNA	Apply observation, inquiry, and scientific vocabulary to basic laboratory science.	Featured Hands-on STEM activities include forensic investigations, DNA extraction, fingerprint analysis, and a forensics lab challenge.
Oct. 7	Medical Mystery	Use evidence to analyze clues and explain a diagnosis.	Featured Hands-on STEM activities include patient stations, symptom matching, case teams that test samples, clue-card organization, diagnostic tool creation, and evidence-based claims.
Oct. 14	Antibiotics vs. Viruses Lab	Distinguish bacteria and viruses and identify prevention.	Featured Hands-on STEM activities include model microbes, treatment-sorting scenarios, superbug discussions, future-medicine concepts, and prevention stations to compare illness pathways.
Oct. 21	Disaster Response and First Aid	Identify basic emergency response steps, first aid safety, and how teams use communication and supplies during a disaster.	Featured Hands-on STEM activities include emergency kit planning, bandage practice, disaster-triage sorting, and team response scenarios.

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Oct. 28	Heart Health and Lungs: Vitals Lab	Describe heart function, healthy habits, and wellness data. Understand vital signs and heart/lung responses to activity.	Featured Hands-on STEM activities include pulse checks, breathing-rate and movement stations, heart-rate graphs, habit-choice simulations, and heart and lung model creation.
Nov. 4	Medical Technology	Identify healthcare technology.	Featured Hands-on STEM activities include device-matching challenges and wearable medical device exploration.
Nov. 11	Ambulance Engineering Lab	Describe emergency design needs, safety, and efficiency.	Featured Hands-on STEM activities include ambulance layout prototypes, ambulance model creation, supply-placement testing, and design improvements for speed and safety.
Nov. 18	Robotics in Medicine	Describe healthcare robotics, functions, and safety.	Featured Hands-on STEM activities include simple robot-task challenges, robotic movable-body-part device design, and tool-control trials inspired by medical settings.
Nov. 25 or Dec. 2	Prosthetics Engineering Lab	Understand prosthetics, user needs, and assistive engineering.	Featured Hands-on STEM activities include adaptive device construction, materials testing, and prototype revisions for comfort and function.

Note: The activities listed are examples and may be adjusted based on available time, materials, event format, and participant needs.