

Hands-on Science

- The *Simply S.T.E.A.M.* program includes hands-on learning and take home assignments. Homework is **necessary** to succeed in this class.
- Only serious students should register for this program.
- Testing is done to encourage mastery. Parents are able to access their students' learning progress through online resources.
- Class can get messy at times. Please dress accordingly.
- The class has a minimum registration of 10 students. If this minimum is not met, the class may be cancelled at the discretion of the instructor.
- Class rotations max out at 18 students. Please secure your spot early.

About Us

Akron Fossils and Science Center is a learning center that explores many scientific models in historical and operational science. These models do include Creation Science, Intelligent Design, and Catastrophism.

Our *Simply S.T.E.A.M.* classes teach science with an open mind and encourage critical thinking, allowing the students to decide for themselves in complicated areas of understanding.



2080 S. Cleveland-Massillon Rd.
Copley, OH 44321

Location

Conveniently located in Copley Township only fifteen minutes from downtown Akron.



Find and print driving directions on our website.



More things to do...

Akron Fossils and Science Center has many other learning opportunities along with a play park where you can have fun on a Giant Slide, 200 ft. long Zip Line, 4-man Helicopter Swing... and much more! We also have a play area for the younger children and a picnic area for bringing lunches. Admission to the center or the park is separate from all class fees.

AKRON
FOSSILS & SCIENCE CENTER®

2080 S. Cleveland-Massillon Rd. - Copley, Ohio 44321
330-665-DINO (3466) - info@akronfossils.com
www.AkronFossils.com

Simply S.T.E.A.M.

AKRON
FOSSILS & SCIENCE CENTER®



Science Technology Engineering Art Mathematics



- **Who:** Home Educated Students in the 6-12th grades
- **What:** A S.T.E.A.M. based program that runs during the school year with 2 sessions (Fall and Spring) that consist of 13 weeks each.
- **When:** Wednesdays from 9:30 a.m. – 3:30 p.m. (This is an all day program. Students receive a one hour supervised break for lunch. Students must pack their own food for the day. Snacks and drinks can be purchased in the gift shop.)
- **Where:** Akron Fossils and Science Center
- **Why:** To engage curious students in the areas of science, technology, engineering, art, and mathematics through a combined study program.
- **Cost:** \$880.00 per year. Books are a requirement and must be purchased separately.
- **Payment Plan:** After the initial \$50 deposit, payments can be made throughout the year in 12 monthly installments.
- **Discounts:** A 15% sibling discount is available for each child after the first on any of our Simply programs, full registrations only.

Simply S.T.E.A.M.



Fall: Sept. 12–Dec. 12, 2018
(No class on Nov. 21 due to Thanksgiving)

Spring: Jan 16–Apr 17, 2019
(No class on Mar 27 due to Spring Break)

S

Science: Microbiology

Workbooks Needed:
The Genesis of Germs
(Master Books)

Microbiology Demystified
2nd Edition (McGraw Hill)



Introducing the Microbes

What is Microbiology? Historical Overview, Cell Biology, Understanding the Microbiome, Symbiosis, Resident vs. Transient, Naming, Classifying, Kingdom Archaea, Kingdom Bacteria, Kingdom Protista, Kingdom Fungi, Helminths, Viruses, Viroids, Prions

Clinical Application

Epidemiology, Diagnosing Disease, Classification of Disease, Transmission, Immunity, Vaccines, Antimicrobial Drugs, Communicable Diseases, Nosocomial Infections, Past Plagues, Emerging Diseases, Chemotherapeutic Agents, Drug Resistance

T

Technology: Biotechnology

Workbook Needed:
Microbiology and
Biotechnology
(Biozone)



Lab Technology

What is Technology? History of the Microscope, Types of Microscopes, Understanding Magnification, Staining Techniques, Aseptic Technique, Streak Plating, Strain Isolation, Dilution plating

Putting Microbes to Use

Industrial Microbiology, Environmental Microbiology, Bioremediation, Sewage Treatments, Food Preservation, Bread Making, Cheese Making, Vinegar, Vitamins, Enzyme Production, Application of Enzymes, Biofuels

E

Engineering: Genetic Engineering

Book Needed:
Engineering
(Beginner's Guides—One
World Publishing)



An Introduction to Engineering

Historical Overview, Engineering Fields of Study, The Design Process, Structural Engineering, Mechanical Engineering, Electrical Engineering, Communications, Chemical Engineering, Biomedical Engineering

Genetic Engineering

What is Genetic Manipulation, Ethics of Genetic Modification, Stem Cells and Tissue Engineering, Cloning, Polymerase Chain Reactions, Using Recombinant Bacteria, Bioremediation

A

Art: Microbes and Art

Supplies Needed:
Composition Journal
Watercolor Paper



Microbes by Design

What is Design? What is Art? Visualizing Complexity, Representational Art, Abstract Art, Watercolor Technique, Chalk Pastel Technique, Oil Pastel Technique, Mixed Media, Print Making

Creative Microbes

Indigo Production, Fashion, Material Making, The Art of Decomposition, Color Changing, Textile Art, Salt Technique, Foil Technique, Wax Resistant

M

Mathematics: Microbial Math

Workbook Needed:
Mathematics Made Simple
6th Edition (Three Rivers
Press)



Math Matters

What is Microbial Math? Measuring Magnification, Sizes of the Microbial World, Growth Rates, Establishing Numbers by Indirect Methods, Microbial Death Rates, Numbers, Fractions, Decimals, Percents, Signed Numbers, Algebraic Expressions, Polynomials

Math Applies

Linear Equations, Quadratic Equations, Sequences and Series, Introduction to Geometry, Measurements of Geometric Figures, Molecular Geometry, Microbial Geometry, Graphs, Probability, Introduction to Trigonometry