



AIM Student

Advanced Innovation Methodology

Self-Directed Online Advanced Authentic Research/Invention Instruction

When students want to take SCIENCE or INVENTING to the next level, they need AIM Student.



Science Coach
EDUCATE • INNOVATE • ACHIEVE



Advanced Innovation Methodology for Students

There are always those students who can work independently, are hungry for a challenge and love science or inventing. By connecting these students to AIM Student, the teacher can facilitate their success without adding to their instruction workload.

AIM Student is self-directed, online instruction that remotely guides students through the research/innovation process.

- Students follow step-by-step instructions that guides them to complete research or an invention in a topic of their choosing.
- Critical thinking skills, problem solving and persistence is practiced.
- Includes an innovation journal that teaches collaboration, documents the invention process and provides a structure that builds a pitch deck for those with an entrepreneurial focus.
- Career Connections help introduce students to potential careers.
- 5 E Inquiry Model (Gold Standard in Science Instruction)

70 + Lessons Incorporate Active Learning

- Lessons directly tie to students' personal research and innovation projects, increasing relevance to student
- Each lesson allows them to take control of their own learning
- Interdisciplinary approach incorporates multiple subjects into student-specific project-based learning
- ✓ Checkmarks visually indicate completion

Below is a snippet of the lessons available

- 11 . Professional Documentation: Logbook 3.1 ✓
- 12 . Refining Your Questions and Understanding the Problem 3.2
- 13 . Finding Questions or Problems Affecting You and Peers 3.3
- 14 . Research Questions In Nature 3.4
- 15 . Finding Research Questions or Problems Everywhere 3.5
- 16 . Create Your Question or Problem 3.6
- 17 . Finding a Mentor 3.7 ✓
- 18 . What is Relevant Background Information 4.1

Cost

Monthly: \$25/student/ mo.

Annual: \$200/student for 12 months

Annual Site Licenses of >1000 students: \$175/student

Permanent license

Up to 10 students: \$8,000. (\$5,000 if purchased with AIM Teacher permanent license.)

Up to 50 students: \$35,000

Up to 500 students: \$150,000

Up to 1000 students: \$250,000

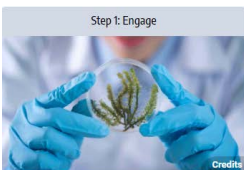


Ordering is easy

1. Order online at ScienceCoach.org
2. Call 314-501-1940
3. Send a PO to: Info@ScienceCoach.org

Discounts apply if AIM Teacher is purchased.

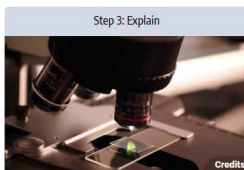
Easy and cost-effective to implement.



Step 1: Engage
Creativity and innovation are at the heart of most things we use and enjoy ea... [More](#)



Step 2: Explore
Write in your notes responses to the following questions: What does it mea... [More](#)



Step 3: Explain
Innovations can be products, processes, scientific knowledge, and ways of do... [More](#)



Step 4: Elaborate
Select one of the innovations that you listed previously in your journal (dev... [More](#)



Step 5: Evaluate
To check your understanding, answer the following questions in your notes: ... [More](#)



Step 6: Check Your Answers
1.1 Evaluation QuestionsThe answers to the multiple-choice evaluation are 1/A... [More](#)

*AIM Student development was graciously supported by the Tracy Family Foundation, The Saigh Foundation and the Science Coach Benefactors. **Science Coach is a 501(c)3 non-profit.**



Module 1: Introduction to Innovation

- Creativity and Innovation
- Working within a Team
- Characteristics of Innovators
- Design Thinking

Module 2: Exploring Ideas for Your Innovation Project

- Why do Independent Exploration?
- Incentives, Motivations, and Market: Exploring Audiences and Relevant Competitions
- Science Changes the World
- Audiences
- Labs, Workshops and the World of Work
- Innovation Methodologies

Module 3: Getting Clear on Your Direction

- Professional Documentation
- Refining your Questions and Understanding the Problem
- Finding Research Questions or Problems around School
- Finding Research Questions or Problems in the Natural World
- Finding Research Questions or Problems Everywhere
- Create Your Question or Problem
- Mentorships and Professional Networks

Module 4: Gathering Relevant Background Information

- What is relevant background information?
- What does it mean to review relevant background information?
- Sources of background information
- Troubleshooting background information reviews
- Conducting your background information review
- Create a hypothesis or specify design requirements

Module 5: Ethics and Integrity

- Intro to Ethics
- Ethical Issues with Living Beings
- Ethical Issues with Handling Information
- Governing Bodies of Ethics
- Ethical Scenarios

Module 6: Designing and Planning Experiments and Tests

- Track Specific Requirements
- Track Specific Process and Planning
- Track Specific Testing
- Designing Track Specific Testing
- Design and Implementation
- Student Presentations

Module 7: Study Designs

- Research Methods
- Observations and Surveys

(Module 7 Continued)

- Surveys and Focus Groups
- Observations: Survey and Focus Group Designs
- Correlations and Causations
- Correlations Study Designs
- Quasi-Experimental and Experimental Study Designs
- Developing a Quasi-Experimental or Experimental Study Design

Module 8: Conducting Experiments and Tests

- Bias and Sampling
- Designing Your Data Collection
- Safety
- Discipline Specific Methods
- Refining Your Process
- Execute Your Project

Module 9: Tools for Analysis

- Descriptive Statistics
- Applying Real World Data
- Analyze Data Using Tools of the Profession, Part 1 and Part 2

Module 10: Data Analysis and Statistics

- Introduction to Analysis and Hypothesis Testing
- Strength of Agreement or Disagreement
- Comparing Mean Values
- Comparing Proportions
- Applying Appropriate Analysis
- Why Good Data is Important

Module 11: Making Sense of Information and Next Steps

- Data Visualization
- Data Organization
- Data Interpretation
- Developing a Conclusion and Discussion Your Conclusion and Discussion

Module 12: Written Communication

- Introduction to Written Communication
- Laying out the Context
- Background Information Review, Materials, Methods Results, Discussion, and Conclusion
- References and Formatting
- Abstracts and Executive Summaries

Module 13: Oral Communication

- Creating Your Presentation or Demonstration
- Creating Your Speech
- Using Props and Visual Aids
- Speaking Techniques
- Practicing Your Speech

Module 14: Reflection

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