



AIM Teacher

Advanced Innovation Methodology

Detailed Lessons Supporting Advanced Authentic Research/Innovation Instruction

Science Coach is now selling the proprietary instruction our Coaches have used for years to inspire future innovators, resulting in 89% of our students entering STEM careers and over \$1.4 million in scholarships.

Teachers are often on their own to learn how to teach innovation, critical thinking, and advanced authentic research techniques. The time spent creating their own lessons contributes to burn-out and the resulting instruction is often sub-par.

Teachers need detailed lessons to support advanced authentic research/innovation instruction.

By using AIM Teacher, best-practices, evidence-based invention education and industry-level research methodology is provided so the teacher can do what they do best - inspire future innovators.

Advanced Innovation Methodology (AIM) Teacher provides detailed lessons supporting advanced authentic research/innovation instruction to 6th - 12th graders.

AIM Teacher offers complete lessons ranging from choosing a topic, research design, statistics, to communicating results - all in preparation for competitions, science fairs and career readiness.

Now YOU can excite and empower your 6th-12th grade students.

AIM Teacher has 14 modules of comprehensive research/innovation methodology:

- Step-by-step downloadable/modifiable lesson plans, rubrics, and classroom activities.
- Uses the 5 E instructional framework.
- Clear objectives and timelines guide student innovators to successful completion.

Text is fully downloadable and modifiable allowing teachers to easily customize lessons for individualized needs.

Access to this rigorous research methodology saves teachers prep time, increases student research skills and teaches industry-level research practices. It has proven effective in public, private and home-schools across rural, urban, and suburban areas.

Use AIM Teacher as:

- Supplemental instruction in existing classes
- Complete instruction for dedicated research classes
- A framework for science or invention clubs/extracurricular activity

*I think AIM Teacher is an invaluable resource! I have utilized many of the modules and incorporated them into my general science research course. My students have a much deeper understanding of the research process and all of its components as compared to how they learned it in a general science classroom. **Brittany Kelley, Twin Rivers High School***

*As an experienced research teacher, I find AIM Teacher very helpful because it organizes instruction into easy to use modules that can be used independently or in sequence. I wish I had this when I started teaching! **Jennifer Hess, Wentzville, Holt High School***

Science Coach is a non-profit education provider that also offers year-long, job embedded professional development and advanced authentic research programming for 6th-12th grade teachers and students from U.S. public, private, and homeschools. We are creating the next generation of STEM professionals. Experienced teachers ready for the next level can apply for our Science Coach PD program. <https://bit.ly/ScienceCoachApply>

AIM Teacher is ideal for any 6th-12th grade research teacher or those using inquiry-based or project based learning to teach innovation and critical thinking skills.



Cost

Annual License Per Teacher is \$2,500/ea

Permanent License Per Teacher in a School or District With ALL Updates is:

- 1- 5 teachers \$5,000/ea**
- 6-10 teachers \$4,500/ea**
- 11-15 teachers \$4,250/ea**
- 16+ teacher \$4,000/ea**

Add 10 PERMANENT AIM Student Companion Licenses for \$5,000 per teacher



Purchase

- **Online**
- **Call 314-501-1940**
- **Email a PO to Sales@ScienceCoach.org**

AIM Teacher is supplemental methodology instruction. It does not conflict with content curriculum or require additional approval.



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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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