

# Need an online curriculum to support REMOTE project-based learning or research?

So did we...that's why we took our 13 years of experience and created the **Science Coach Innovation Curriculum\***, a **project-based learning (PBL) framework that remotely guides students through the innovation process while allowing easy and effective teacher oversight and evaluation.**

Because COVID-19 has thrust education into a virtual world, the demand to use our robust, year-long methodology curriculum (previously reserved for Science Coach teachers in our **full professional development program**) and our desire to help teachers during this unprecedented time, has prompted our non-profit to make this student-facing curriculum available to schools, individuals, micro-schools or anyone wanting to engage students in fun, individualized and REAL LIFE project-based learning of THEIR OWN CHOOSING.

**Science Coach is 100% project-based learning, so we recognized the magnified challenge of teaching PBL remotely.** Science Coach invented this PBL framework as a technology solution that teachers can use as an integrated or stand-alone implementation to engage **remote** students. PBL has always been an effective way to ignite a student's intrinsic motivation, awaken creativity and teach critical thinking skills to solve real-life problems. **Science Coach has made Project-Based Learning EFFECTIVE and POSSIBLE in the new virtual education world.**

## **STUDENTS - Innovation Curriculum engages and supports 6th-12th grade students to REMOTELY:**

- Enhance **enrichment of regular classroom subjects** through individualized PBL activities.
  - Design an **invention** and prepare "Shark Tank-like presentations."
  - Complete a **science fair** and/or **high-level research** project including competition posters and oral presentations.
  - Develop an **engineering** design, **ecology** or **computer**-based project.
- Step students through the entire innovation process.
- Complete an innovation journal that provides the necessary online structure and keeps all content and media in one place.

## **TEACHERS - Teaching PBL remotely is easier because the Innovation Curriculum provides:**

- Easy oversight access with status updates on all projects.
- The ability to group students into teams or make a unique 'course.'
- Access to place feedback or mentoring insight directly in the student's online innovation journal.
- Grading options and rubrics provided to evaluate the virtual student's results.
- Teacher instruction guidance and answer keys embedded within the content upon login.
- Comprehensive modules and lessons (see next page) that work for students of all abilities.

## **ADMINISTRATORS - Innovation Curriculum is an equitable solution for ALL students and a VITAL tool for effective PBL remote implementation:**

- Teacher access is free.
- Easy and cost-effective to implement. Send us the Order form (with PO #) and the email lists and teacher/student accounts are active within 2 business days.

\*The Science Coach Innovation Curriculum development was graciously supported by the Tracy Family Foundation, The Saigh Foundation and the Science Coach Benefactors.

Our Innovation Curriculum is a **methodology** curriculum, so it doesn't conflict with content curriculum or require additional approval.



### **Cost**

\$25/student/month or \$200/student for a discounted 9 month subscription

Site Licenses of >1000 are \$175/student/9 months



### **Ordering is easy**

1. State the number of students who will access the curriculum (Teachers are FREE!)
2. Choose your payment time frame and method (Annual PO, Annual Credit Card or Monthly Credit Card)
3. Send an Excel document with student & teacher emails and you are done.

**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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# Innovation Curriculum Order Form



School Information	
Name	
District	
Street Address	
City/State/Zip	
Phone #	

Contact Information	
Name	
Title	
Phone	
Email	
Role	

Order Information	
Today's Date	
Number of Students to have access to Innovation Curriculum	<p><b>Select one:</b></p> <p><input type="checkbox"/> Annual license for _____ (# of students) * \$200 = _____</p> <p><input type="checkbox"/> Annual license of &gt;1000 students (\$175 per student for 9 months) _____ (# of students) * \$175 = _____</p> <p><input type="checkbox"/> Monthly license for _____ (# of students) * \$25 = _____ / month (Requires a credit card to be held in the secure system and will be charged monthly on the 1st of the month.)</p>
How will you pay? (Choose #1 or #2 and complete relevant information.)	<p><input type="checkbox"/> <b>1. Our PO # is</b> _____</p> <p>Please send an invoice to: Name: _____</p> <p><input type="checkbox"/> Use the school address above</p> <p><input type="checkbox"/> Address _____</p> <p><input type="checkbox"/> <b>2. Send the link to enter the credit card securely to:</b></p> <p>_____ (Name) at this email: _____</p>
Instructions to send student and teacher email addresses	<p>1. No names are needed - just an Excel file (or Google Sheet) that lists ONLY the email address of the students and another sheet in the SAME file with the teacher emails. Or - Download a template from <a href="https://bit.ly/SCICLicense">https://bit.ly/SCICLicense</a></p> <p>2. Name the file with your two letter state abbreviation, school name and # of students being licensed.(Example: MO Ritenour High School 452.xls )</p> <p>3. Email the file to: Shawn@ScienceCoach.org You will receive an email verifying receipt.</p>

Return this completed form to: **Shawn@ScienceCoach.org**

For direct phone support or for questions, call Science Coach at: **314-501-1940** or email **Jill@ScienceCoach.org**.