The Ecosystem

The CSB2 STEM Ecosystem was started in 2019 with a PA Smart Advancing Grant from the PA Department of Education and the Commonwealth of Pennsylvania, Tom Wolf, Governor. The Ecosystem serves the counties of Cambria, Somerset, Blair and Bedford Counties.

Stakeholders in the ecosystem include public schools, public libraries, institutions of higher education, workforce development agencies, and businesses and industries.

The Ecosystem provides training, STEM-related equipment, and learning opportunities for students, teachers, and family members in the region.

Everyone associated with the Ecosystem is dedicated to ensuring that all students in the region have access to the latest technologies and that upon graduation from high school are job-ready or positioned to continue their education.
Online Resources

The Ecosystem provided the following resources for schools and public libraries

TumbleMath teaches math concepts by using a picture book concept. It is targeted for students in grades K-6.

<table>
<thead>
<tr>
<th>Totals for 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Views</td>
</tr>
<tr>
<td>Book Views</td>
</tr>
<tr>
<td>Lesson Plan Views</td>
</tr>
<tr>
<td>Quiz Views</td>
</tr>
<tr>
<td>Last 12 Months</td>
</tr>
</tbody>
</table>

MackinMaker were kits that were made available through the public library systems for families to check out STEM-related kits to do at home.

<table>
<thead>
<tr>
<th>Totals for 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home usage</td>
</tr>
<tr>
<td>In library usage</td>
</tr>
</tbody>
</table>

“This is really great”
-Patron response
Online Resources

The Ecosystem provided the following resources for schools and public libraries:

Tutor.com provides access to live tutors and resources materials in a number of STEM subject areas.

Totals for 2021

### Live one-to-one Sessions

<table>
<thead>
<tr>
<th>TOTAL SESSIONS</th>
<th>69</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Literacy</td>
<td>2</td>
</tr>
<tr>
<td>Math</td>
<td>9</td>
</tr>
<tr>
<td>Science</td>
<td>1</td>
</tr>
<tr>
<td>Student Success: Study Skills</td>
<td>57</td>
</tr>
</tbody>
</table>

### Live one-to-one Sessions Feedback

- Are you glad your organization offers this service? 96%
- Would you recommend this service to a friend? 87%
- Is this service helping you complete your homework assignments? 79%
- Is this service helping you improve your grades? 85%
- Is this service helping you be more confident about your school work? 85%

### Comments

- Thank you this is awesome 12th
- Helped me really well with the equations 12th
- The tutor was an amazing help and she gave me great ideas on the topic 12th
- I think it helps to get another opinion on something if you don know an answer. 12th
Remake Learning Days

Remake Learning Days is a national event that brings STEM-related activities to students and family members. CSB2 Ecosystem had 15 events during PA Remake Learning Days—May 6-16, 2021

Somerset County Library

Pennsylvania Highlands Community College
University of Pittsburgh at Johnstown
Remake Learning Days

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Allegheny Portage Railroad NHS

Remake Learning Day Partners

[Images of logos for various partners]
STEM Challenges

During the pandemic, to encourage STEM learning at home, the Ecosystem proposed STEM Challenges that could be completed with items easily available.
STEM Challenges

One of the STEM Challenges was directed toward teachers who had an opportunity to create a STEM activity based on experiments in the book, “Real Chemistry Experiments” by Dr. Edward Zovinka, St. Francis University.
The PA STEM Coalition brings together representatives from the nationally-recognized and regional ecosystems to share information, liaison with the PA Department of Education, and to partner on national initiatives like Remake Learning Days.

Map of Pennsylvania STEM Ecosystems

The CSB2 STEM Ecosystem has participated in the PA STEM Coalition since 2019.
Executive Board

The Ecosystem has an Executive Board that oversees activities and participates in state and regional STEM-related partnerships and programs.

Mark Bollman, Director, Bedford County Career and Technical Center

Sarah Brambley, STEM Specialist, Intermediate Unit 8

Thomas Brambley, Cyber School Facilitator, Everett Area School District

Brad Hatch, Assistant to the Superintendent for Secondary Schools, Altoona Area School District

Cheryl Morgan, Director, Somerset County Library

Janel Vancas, Director of Curriculum Innovation, Intermediate Unit 8

Susan Whisler, Director, Southern Alleghenies Workforce Development Board

Dr. Barbara Zaborowski, Dean of Library Services and Special Projects, Pennsylvania Highlands Community College

Megan Zadzilko, School Counselor, Greater Johnstown School District

Dr. Edward P. Zovinka, Professor, St. Francis University