WBL Continuum of Experiences in IT

March 22, 2022
Who’s here today?

Please use the chat to write your name, title, organization &
A question that you have about designing or implementing WBL experiences in IT

- Please mute computers and/or phones during the presentations
- There will be time for Q&A after each presentation
- Please use the chat to provide any comments or questions throughout
Highlight and explore innovative models for work-based learning, initial focus on virtual.

Engage in conversations on creating sustainable, high-quality models that provide broader and more equitable access, with a focus on building social capital for Black and Latinx students.

Build connections among communities to share best practices, learnings and resources.

Identify needs for state policy changes or support systems.

Link to I-WIN Resource Hub

Subscribe to the I-WIN Newsletter!
Illinois’ Work-Based Learning Continuum

Career Awareness → Career Exploration → Team-Based Challenge → Career Development Experience → Pre-apprenticeship / Youth Apprenticeship → Apprenticeship

Increasing Intensity of Employer Engagement

Definitions: Illinois Career Pathways Dictionary
### How does Illinois define these WBL experiences?

<table>
<thead>
<tr>
<th>Career Exploration</th>
<th>Team Based Challenge</th>
<th>Career Development Experience</th>
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<tbody>
<tr>
<td>Provides an individual with the ability to <strong>engage directly</strong> with employers, for the purpose of gaining knowledge of one or more industry sectors or occupations.</td>
<td>A group problem-based learning project relating to an individual’s career area of interest that involves a <strong>problem relating to employers within that area</strong>, including <strong>mentoring from adults with expertise</strong> in that area, and requires the individual to present the outcomes of the project.</td>
<td>A supervised work experience relating to an individual’s career area of interest that: 1. Occurs in a workplace or under authentic working conditions; 2. Is co-developed by an education provider and at least one employer in the relevant field; 3. Provides compensation OR educational credit to the participant (or both); 4. Reinforces foundational professional skills including, at a minimum, those outlined in the Essential Employability Skills framework; and 5. Includes a Professional Skills Assessment that assesses skill development and is utilized as a participant feedback tool. 6. Takes place for a minimum of 60 total cumulative hours</td>
</tr>
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Source: [Illinois Career Pathways Dictionary](#)
Information Technology Model Program of Study

- Webinar Recording
- Guide
- Diagram
Statewide Team-based Challenge Resource Bank

- Organized by College and Career Pathway Endorsement Area
- Includes ideas for inspiration and detailed models, along with a template for designing your own
- Resource bank and materials available on [I-WIN resource hub](#)

<table>
<thead>
<tr>
<th>Equipment Issues</th>
<th>Troubleshoot equipment issues and make recommendations for maintenance, upgrades, replacement parts, new equipment, etc.</th>
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<tbody>
<tr>
<td>Security Risks</td>
<td>Assess security risks, especially any unusual bugs or other undiagnosed IT issues, and identify meaningful solutions to mitigate.</td>
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<tr>
<td>Ethics and Privacy</td>
<td>Identify and make recommendations to address ethical and privacy issues within an emerging system or process that captures data.</td>
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<tr>
<td>Root Cause Analysis</td>
<td>Perform a review to determine the root cause of a problem or event and based on this analysis provide solutions on how to systemically prevent future issues.</td>
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<tr>
<td>Training/Protocol</td>
<td>Determine a need for awareness/education of a process and develop training on how to use/draft protocol.</td>
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Listing of examples of professional learning experiences within IT, organized by Team-based Challenges and Career Development Experiences.

Each example includes a summary of the program/experience, timeline for implementation, funding model, impact, and case study examples of successful activity.
WBL at the Illinois Success Network Conference

- Piloting Career Exploration and Career Development Experiences: Resources and Insights from Illinois Communities
- Engaging Employers to Support Student Career Exploration
- Increasing Access and Success for Underrepresented Students in STEM and the Health Sciences
- Promising Practices & Lessons Learned: High School Youth Apprenticeships

Link to recordings and presentations
Please join to hear from communities across Illinois who are piloting a Career Exploration or Career Development Experience this school year as part of a grant opportunity from the Illinois State Board of Education.

**Tuesday, April 26th from 10:00-11:30a**

Community presentations will include: a general overview of their experience, lessons learned and challenges overcome, and any best practices and resources to share broadly.

[Link to register]
Today’s WBL Presenters

Grayslake School District
• Gina Schuyler

Lake County Tech Campus
• Alex Escareno

Science Olympiad
• Katrina Pavlik
• Dr. John Loehr
• Dr. Peter Hung
• Russ Burleson
Gina Schuyler
CTE Department Chair for Careers and Community Partnerships
D127 - Grayslake Central and North

MobileMakersEdu Winter Contest
WBL AND COMPUTER SUPPORT SERVICES

- Tier 1
- Relief through Leadership
TIER 1

▪ Tier 1: Basic Computer Support
▪ Students maintain C or above
▪ Rotation schedule set by instructor
▪ Summer Internship
RELIEF THROUGH LEADERSHIP

- Partnership between RTL and Tech Campus
- Puerto Rico Project & Kentucky Project
- Tech Campus:

![Graph showing chromebooks repaired from 2019-2020, 2020-2021, and 2021-2022]
Lake County Tech Resources

• Chromebook Refurbishment Device Checklist
SCIENCE OLYMPIAD AND INFORMATION TECHNOLOGY PATHWAYS

I-WIN Community of Practice Meeting 3/22/22

Russ Burleson, 30+ year engineer
Dr. Peter Hung, The Aerospace Corporation
Dr. John Loehr, Vice President of STEM Education, Science Olympiad
Katrina Pavlik, Deputy Executive Director, Science Olympiad
TODAY’S OVERVIEW

Science Olympiad 101
Science Olympiad CTE Alignment
Information Technology Pathways + Science Olympiad
Career Exploration
Team-Based Challenges
Mentorship and Industry Connections
Q&A
SCIENCE OLYMPIAD 101

Background
• Founded in 1984
• Mission to engage, excite and inspire the next generation of STEM learners and professionals

Reach
• 5,500 middle and high school teams in 21-22
• 50 states + DC

Programs
• Elementary (K-6)
• Middle and high school
  • Competitive: School teams compete in 23 competitive events
  • Non-Competitive: MY SO program
SCIENCE OLYMPIAD CTE ALIGNMENT

NATIONALLY RECOGNIZED

- Business Professionals of America (BPA)
- FBLA - Future Business Leaders of America
- FCCLA - Family, Career and Community Leaders of America
- FFA - Illinois Association

- Illinois DECA, Inc.
- HOSA - Illinois HOSA - Future Health Professionals
- SkillsUSA Illinois
- TSA - Technology Student Association

ILLINOIS RECOGNIZED

- Educators Rising
- Science Olympiad

For more information about becoming a new Illinois CTSO, please email cte@isbe.net.
SCIENCE OLYMPIAD CTE ALIGNMENT

Agriculture, Food & Natural Resources
- Dynamic Planet
- Environmental Chemistry
- Green Generation
- Rocks and Minerals

Architecture & Construction
- Bridge
- Ping Pong Parachute
- Wright Stuff

Health Science
- Anatomy & Physiology
- Cell Biology
- Chemistry Lab
- Designer Genes
- Disease Detectives
- Forensics

Information Technology
- Codebusters
- Circuit Lab
- Detector Building
- Write It Do It

Manufacturing
- Gravity Vehicle
- It's About Time
- Trajectory
- Wright Stuff

STEM
- All events
IT PATHWAYS + SCIENCE OLYMPIAD
CAREER EXPLORATION

Work-Based Learning Continuum

- MY SO program
- Competitive Events
MY SO Program Components
• Free to all
• Designed for middle school, adaptable to high school
• Classroom, home, after-school use
• Includes:
  • Lesson plan and study slides
  • Career pathways video
  • Monthly online test (fee)

Information Technology Related Curriculum
• Circuits (Nov, 2020)
• Waves (Sept, 2022)
IT PATHWAYS + SCIENCE OLYMPIAD
CAREER EXPLORATION

IT-Related Competitive Events (21-22)
• Codebusters
• Circuit Lab
• Detector Building
• Write It Do It

Trial Events:
• Cybersecurity
• Digital Structures
• Write It CAD It

Download Rules: soinc.org/rules-2022
IT PATHWAYS + SCIENCE OLYMPIAD TEAM-BASED CHALLENGE

- Competitive Events
- Mentorship
- Credentials
Examples of Science Olympiad Team-Based Challenges in I-WIN Library (non-IT):

- Plant Disease Detective (Agriculture, Food and Natural Resources)
- Disease Detectives (Health Sciences and Technology)
- Circuit Lab (Manufacturing, Engineering, Technology, and Trades)
- Boomilever Build (Manufacturing, Engineering, Technology, and Trades)

edsystemsniu.org/resources/i-win-resources/
Mentorship in Science Olympiad

- Teams engage industry partners, community partners and parent volunteers to assist teams in competition preparation
- Event Supervisors at tournaments are often industry experts or faculty at higher education institutions
- National partnerships provide resources and sponsorship:
  - Texas Instruments
  - OnShape
  - Google
  - Intel
How do the IT events align to industry needs?

How do the IT events prepare students for educational and career pathways?
General Information: soinc.org
Illinois Science Olympiad: illinoisolympiad.org
Contact SO: jfloehr@soinc.org, kpavlik@soinc.org

Questions?

@SOAlumniNetwork  @SOAlumniNetwork  @ScienceOlympiadOfficial
WBL Continuum Overview

Resources

• Templates for download on I-WIN site
• Career Exploration Presentation & Recording
• Team-Based Challenges Presentation & Recording
• CDEs – Presentation & Recording
Next Steps

• The recording and materials from today will be sent out shortly

• Submit a resource through the I-WIN site or directly to hpenczak@niu.edu – looking especially for Team-based Challenges! The EdSystems intern Eni may also be reaching out to you to gather your models to share through I-WIN.

• Please let Heather know if you are interested in presenting on your model or have recommendations for presenters for Business or Arts & Communications to share at I-WIN

Thank you all for joining!