



I-WIN

Illinois Work-Based Learning
Innovation Network

WBL Continuum of Experiences in IT

March 22, 2022



Education Systems Center

NORTHERN ILLINOIS UNIVERSITY

SHAPING & STRENGTHENING EDUCATION & WORKFORCE SYSTEMS

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

[Link to I-WIN Resource Hub](#)



I-WIN

Illinois Work-Based Learning
Innovation Network

[Subscribe to the I-WIN Newsletter!](#)



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

Illinois' Work-Based Learning Continuum



Definitions: Illinois Career Pathways Dictionary

How does Illinois define these WBL experiences?

Career Exploration	Team Based Challenge	Career Development Experience
<p>Provides an individual with the ability to engage directly with employers, for the purpose of gaining knowledge of one or more industry sectors or occupations.</p>	<p>A group problem-based learning project relating to an individual's career area of interest that involves a problem relating to employers within that area, including mentoring from adults with expertise in that area, and requires the individual to present the outcomes of the project.</p>	<p>A supervised work experience relating to an individual's career area of interest that:</p> <ol style="list-style-type: none"> 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

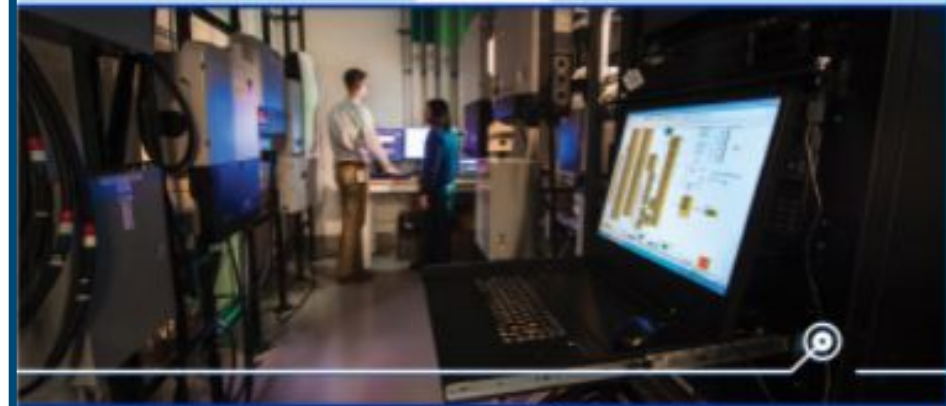
Source: [Illinois Career Pathways Dictionary](#)

Information Technology Model Program of Study

- [Webinar Recording](#)
- [Guide](#)
- [Diagram](#)

State of Illinois Model Programs of Study Guide: **Information Technology**

October 2020



Statewide Team-based Challenge Resource Bank

IDEAS FOR INSPIRATION: TEAM-BASED CHALLENGES

Information Technology

Equipment Issues	Troubleshoot equipment issues and make recommendations for maintenance, upgrades, replacement parts, new equipment, etc.
Security Risks	Assess security risks, especially any unusual bugs or other undiagnosed IT issues, and identify meaningful solutions to mitigate.
Ethics and Privacy	Identify and make recommendations to address ethical and privacy issues within an emerging system or process that captures data.
Root Cause Analysis	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.
Training/Protocol	Determine a need for awareness/education of a process and develop training on how to use/draft protocol.

- 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](#)

Guidebook of Professional Learning in IT



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.

[Guidebook Link](#)

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](#)

ISBE WBL Pilot: Community Showcase

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](#)

WORK-BASED LEARNING IN IT

At



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

Statistics ⓘ

Statistics of tickets organized by department, help topic, and agent.

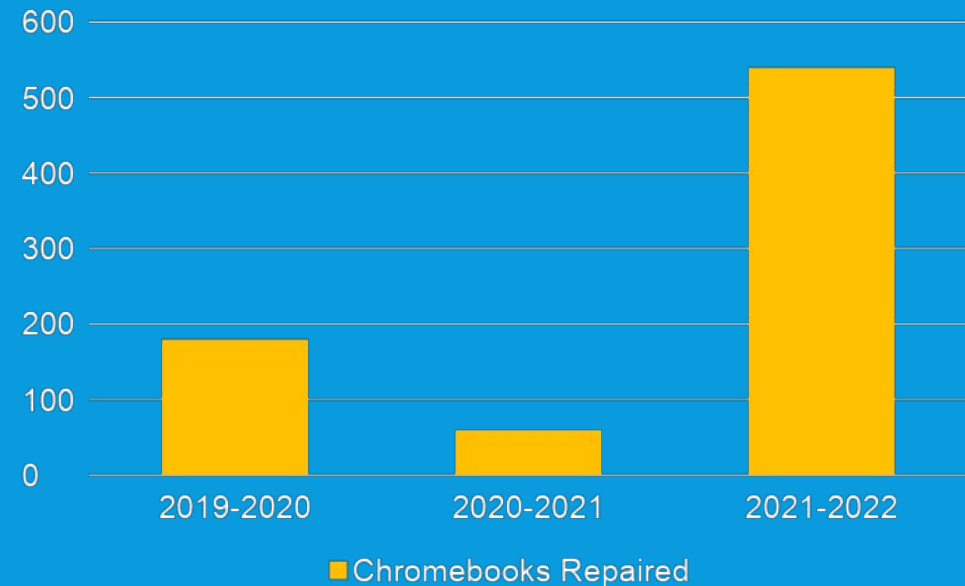
Range: August 21, 2021 - March 21, 2022 (America/Guatemala)

Department	Opened ⓘ	Assigned ⓘ	Overdue ⓘ	Closed ⓘ	Reopened ⓘ	Deleted ⓘ	Service Time ⓘ	Response Time ⓘ
Technology	553	259	0	534	59	0	189.3	36.4
Tier I	13	55	3	54	0	0	151.5	65.3

RELIEF THROUGH LEADERSHIP



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



Lake County Tech Resources

- [Chromebook Refurbishment Device Checklist](#)



Exploring the World of Science

SCIENCE OLYMPIAD AND INFORMATION TECHNOLOGY PATHWAYS

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

Russ Burlison, 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

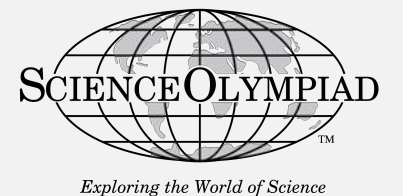
- Founded in 1984
- Mission to engage, excite and inspire the next generation of STEM learners and professionals

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

COLLEGE & CAREER

CAREER AND TECHNICAL STUDENT ORGANIZATIONS (CTSO)

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.



Illinois HOSA - Future Health Professionals



SkillsUSA Illinois



TSA - Technology Student Association

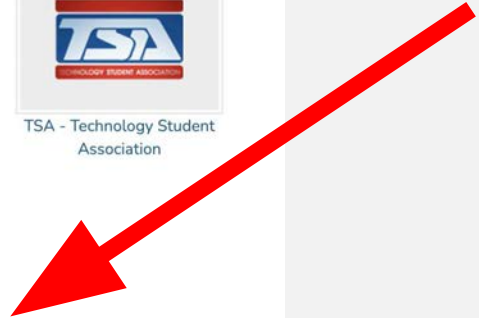
ILLINOIS RECOGNIZED



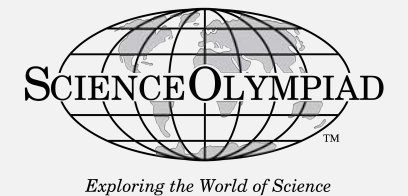
Educators Rising



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



Exploring the World of Science

IT PATHWAYS + SCIENCE OLYMPIAD CAREER EXPLORATION

Work-Based Learning Continuum



- MY SO program
- Competitive Events

IT PATHWAYS + SCIENCE OLYMPIAD CAREER EXPLORATION

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)

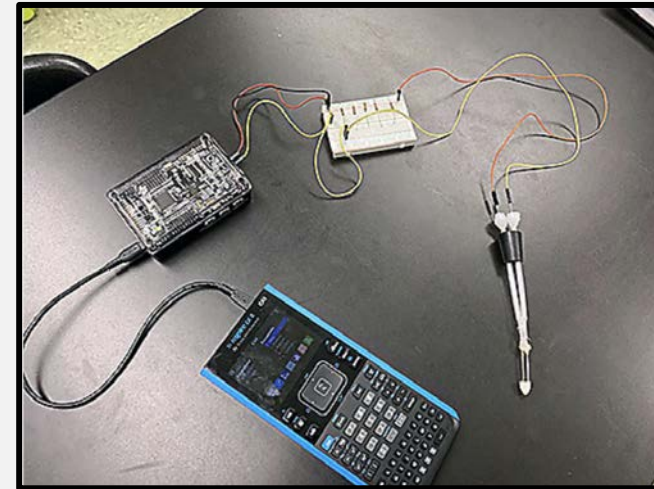
IT PATHWAYS + SCIENCE OLYMPIAD CAREER EXPLORATION

IT-Related Competitive Events (21-22)

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

Trial Events:

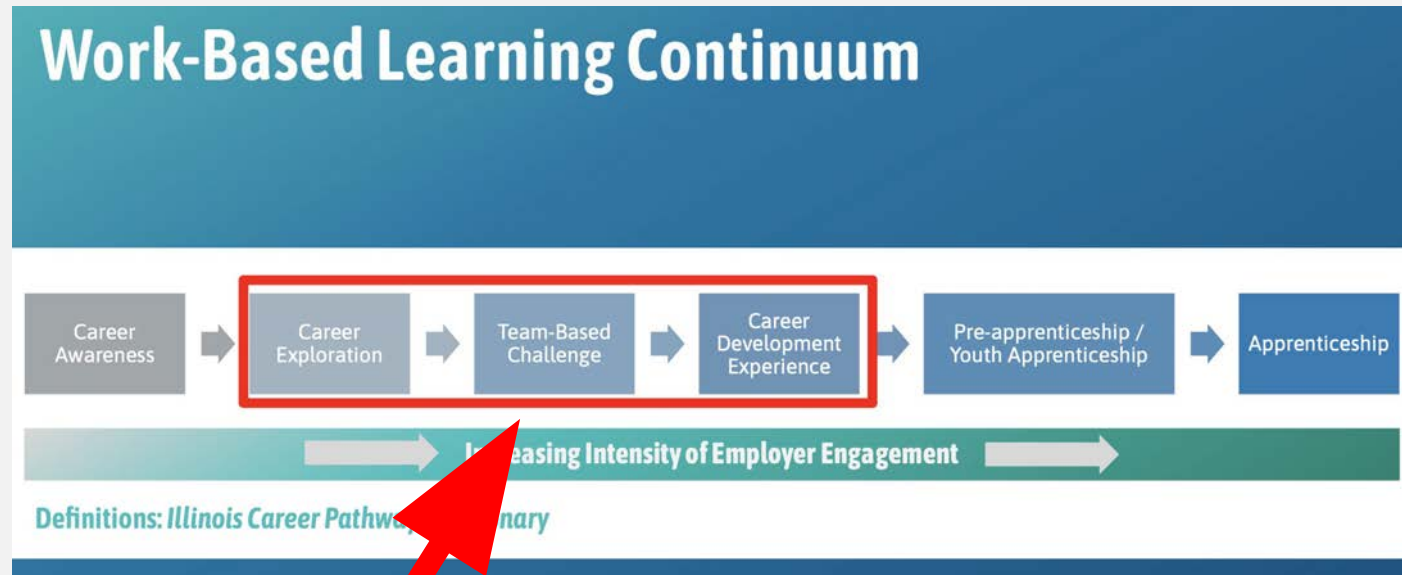
- Cybersecurity
- Digital Structures
- Write It CAD It



Example of Detector Building set-up

Download Rules: soinc.org/rules-2022

IT PATHWAYS + SCIENCE OLYMPIAD TEAM-BASED CHALLENGE



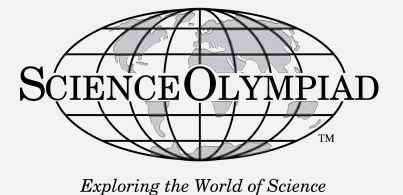
- Competitive Events
- Mentorship
- Credentials

IT PATHWAYS + SCIENCE OLYMPIAD TEAM-BASED CHALLENGES

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)

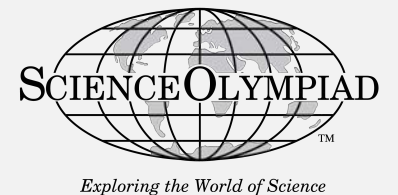
edsystemsniu.org/resources/i-win-resources/#



IT PATHWAYS + SCIENCE OLYMPIAD TEAM-BASED CHALLENGES

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



IT PATHWAYS + SCIENCE OLYMPIAD TEAM-BASED CHALLENGES

How do the IT events align to industry needs?

How do the IT events prepare students for educational and career pathways?

LEARN MORE + QUESTIONS

General Information: soinc.org

Illinois Science Olympiad: illinoisolympiad.org

Contact SO: jfloehr@soinc.org, kpavlik@soinc.org

Questions?



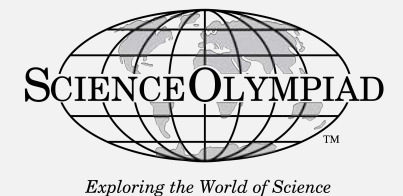
[@SOAlumniNetwork](#)



[@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!