



Illinois State Board of Education

Increasing Math Skills in the CTE Classroom

Tricia Campbell, Illinois State Board of Education
Principal Consultant, Finance and Business Services

Justin Dietrich, Lincoln Community High School

Matt Moore, Warrensburg-Latham High School

Equity • Quality • Collaboration • Community

WHY focus on academic content in CTE



Beyond test scores and graduation requirements



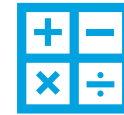
Quality, Rigor, and Relevance in student learning



Workplace readiness



Continuous learning (career changes, etc)



Technical math required in high skill jobs



Physical skills (*doing*) are not enough



Barriers

Challenging
Subject Matter

Fear Factor

Defense
Mechanism

Lack of
Confidence



Tips for Success

Assume no background knowledge

Review the basics

Every step matters

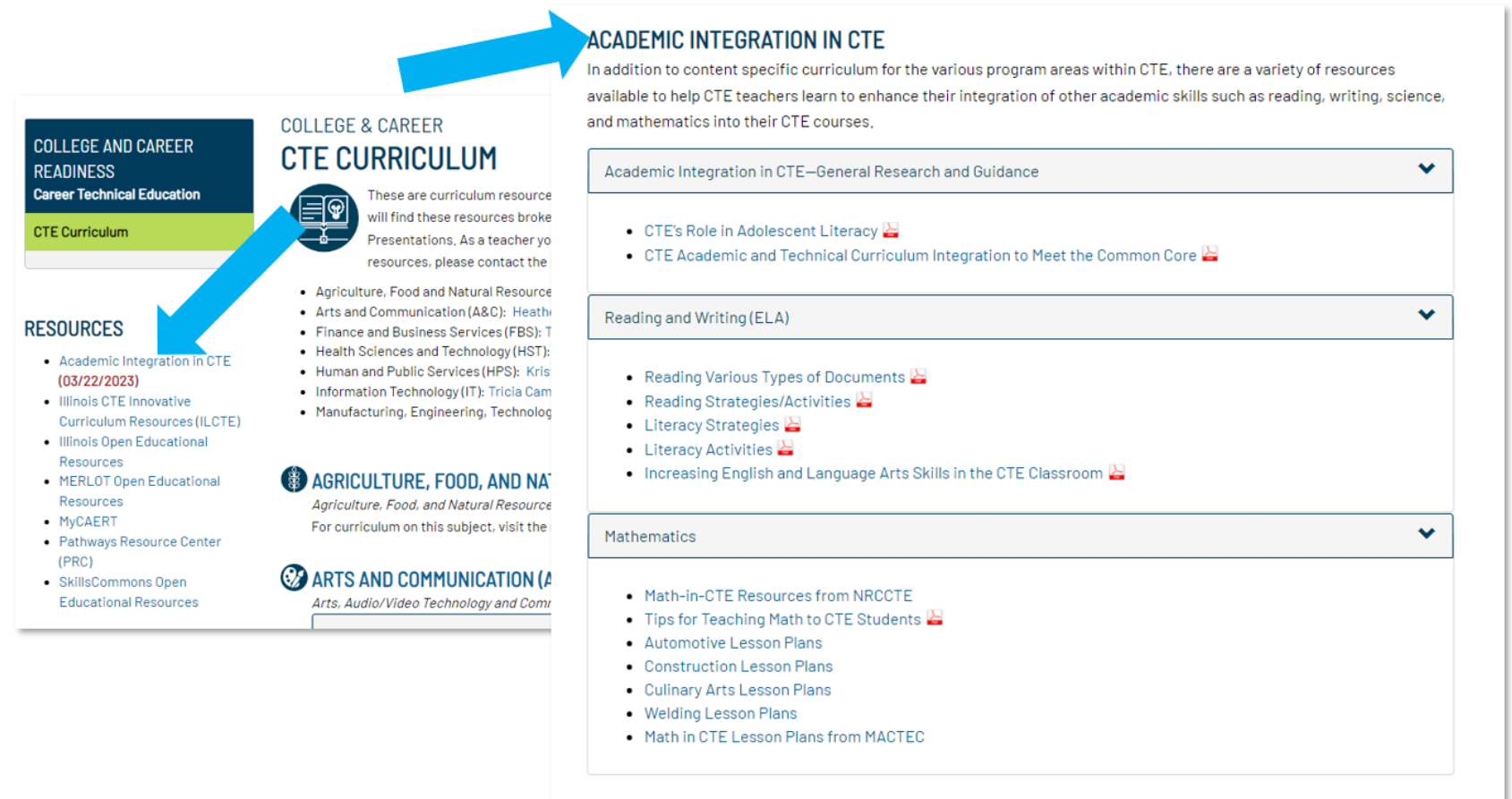
Context connections

Teachable moments



Resources from ISBE

<https://www.isbe.net/Pages/cte-curriculum.aspx>



The screenshot shows the ISBE CTE Curriculum page. A blue arrow points from the 'COLLEGE & CAREER CTE CURRICULUM' header to the 'ACADEMIC INTEGRATION IN CTE' section. Another blue arrow points from the 'RESOURCES' list to the 'ACADEMIC INTEGRATION IN CTE' section.

COLLEGE AND CAREER READINESS

Career Technical Education

CTE Curriculum

COLLEGE & CAREER CTE CURRICULUM

These are curriculum resource will find these resources broke Presentations. As a teacher yo resources, please contact the

- Agriculture, Food and Natural Resource
- Arts and Communication (A&C): Health
- Finance and Business Services (FBS): T
- Health Sciences and Technology (HST):
- Human and Public Services (HPS): Kris
- Information Technology (IT): Tricia Cam
- Manufacturing, Engineering, Technolog

RESOURCES

- Academic Integration in CTE (03/22/2023)
- Illinois CTE Innovative Curriculum Resources (ILCTE)
- Illinois Open Educational Resources
- MERLOT Open Educational Resources
- MyCAERT
- Pathways Resource Center (PRC)
- SkillsCommons Open Educational Resources

AGRICULTURE, FOOD, AND NA

Agriculture, Food, and Natural Resource For curriculum on this subject, visit the

ARTS AND COMMUNICATION (A

Arts, Audio/Video Technology and Comi

ACADEMIC INTEGRATION IN CTE

In addition to content specific curriculum for the various program areas within CTE, there are a variety of resources available to help CTE teachers learn to enhance their integration of other academic skills such as reading, writing, science, and mathematics into their CTE courses.

- Academic Integration in CTE—General Research and Guidance
 - CTE's Role in Adolescent Literacy
 - CTE Academic and Technical Curriculum Integration to Meet the Common Core
- Reading and Writing (ELA)
 - Reading Various Types of Documents
 - Reading Strategies/Activities
 - Literacy Strategies
 - Literacy Activities
 - Increasing English and Language Arts Skills in the CTE Classroom
- Mathematics
 - Math-in-CTE Resources from NRCCTE
 - Tips for Teaching Math to CTE Students
 - Automotive Lesson Plans
 - Construction Lesson Plans
 - Culinary Arts Lesson Plans
 - Welding Lesson Plans
 - Math in CTE Lesson Plans from MACTEC