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**MINUTEMAN**  
A REVOLUTION IN LEARNING

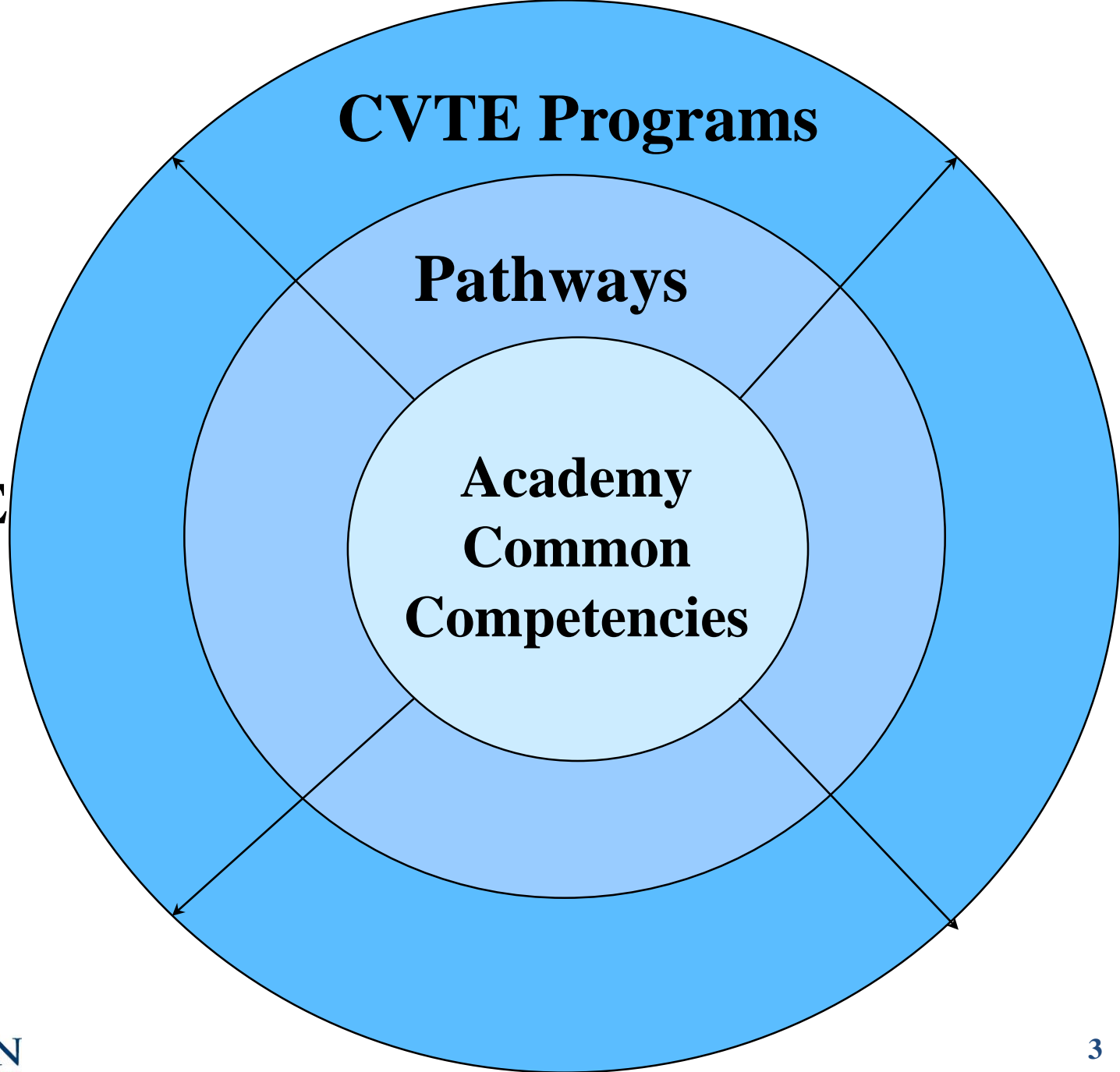
# Academies and Pathways: Integrating Academic and Vocational Curricula at Minuteman

A REVOLUTION IN LEARNING

# AGENDA TODAY

- Why Pathways & What will we Learn?
- Outcomes of Integration
- Why do we Need to Integrate?
- What does “Integration” look like?
  - Models
- How are we doing?
- Next Steps

**ACADEMY-  
PATHWAY  
(CAREER  
CLUSTER)  
STRUCTURE**



# Learnings & Pathway Integration

- **Informs Curriculum Design**
  - What are the Common Competencies within each Academy; each Pathway?
- **Leads to Scheduling and Grouping Ideas**
  - Could a Pathway be on a unique schedule?
  - What is the best Format for T&L?
- **Effective Budget Development**
- **Practice Collaboration**

# OUTCOMES OF INTEGRATION

- To provide all students with the occupational, academic, and higher-order thinking skills needed to function effectively in:
  - A Technologically advanced society
  - A globally competitive marketplace
  - An information-based economy

# OUTCOMES OF INTEGRATION

## To enhance students' learning

- Findings of cognitive psychologists:
  - The focus is on students
  - Basic academic skills and problem-solving skills are taught at the same time so that they are mutually reinforcing
  - Students are encouraged to recognize and solve problems
  - Academic skills are reinforced with hands-on applications

# Why do we Need to Integrate?

- Our World of work requires skills that are known to be developed through Integration best practices, such as Project based Learning, Portfolios, Senior Projects etc.
  - Working on a diverse Team
  - Utilizing resources (time, money, talent)
  - Adapting to circumstances
  - Solving Problems through Critical thinking
  - Professional Skills

# What Does it Look Like?

## 8 Models of Integration

1. Add *Academic Content* to CVTE courses
2. Teach *Academic Skills* within CVTE course
3. Add CVTE *Relevance* to Academic courses
4. Teachers intentionally *Align Curriculum*
5. *Senior Projects*
6. *The Academy Model*
7. *Regional Vocational Technical School* 😊
8. *Curriculum Reorganized around Pathways*



# Homework: “Self” Assessment

## Models of Integration 1 not much – 5 doing it

- Add Academic *Content* to CVTE courses
- Teach Academic Skills within CVTE course
- Add CVTE Relevance to Academic courses
- Teachers intentionally Align Curriculum
- Senior Projects
- The Academy Model
- Regional Vocational Technical School 😊
- Curriculum Reorganized around Pathways

# NEXT STEPS

- Pathway Groups Meet to discuss an Integration Project that the entire pathway can participate in.
- The Superintendent will meet with each Pathway to help facilitate the process.
- Each Pathway will submit a “Pathway Project Proposal” based on the Summer Work Proposal Format.
- Professional Development investments this fall to support this work is underway.



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# Discussion

## **PART II: INTEGRATION PROJECT CHECKLIST**

# 8 Elements of an Integration Project

- SKILLS:COMPETENCIES:UNDERSTANDING
- CHALLENGING PROBLEM OR QUESTION
- SUSTAINED INQUIRY
- AUTHENTICITY
- STUDENT VOICE & CHOICE
- REFLECTION
- CRITIQUE AND REVISION
- PUBLIC PRODUCT

# HOW DO WE GET STARTED?

- Determine Pathway Co-Leads (10 Staff)
- Meet and review (w Superintendent?)
  - 8 Elements
  - Rubric
  - Sample Project Overview
- Determine what students you should engage in this project.
- Draft the Project Design Proposal

# Project Design Proposal Form

- **Overview (Part I)**
  - Significant Content
  - Project Summary
  - Driving Question
  - Products
  - Public Audience
  - Resources Needed
  - Reflection Methods

# Project Design Proposal Form (Part II)

- **Student Learning Guide**
  - Driving Question
  - Final Product of Project
  - Learning Outcomes/Targets for kids
  - Check points/Formative Assessments
  - Instructional Strategies

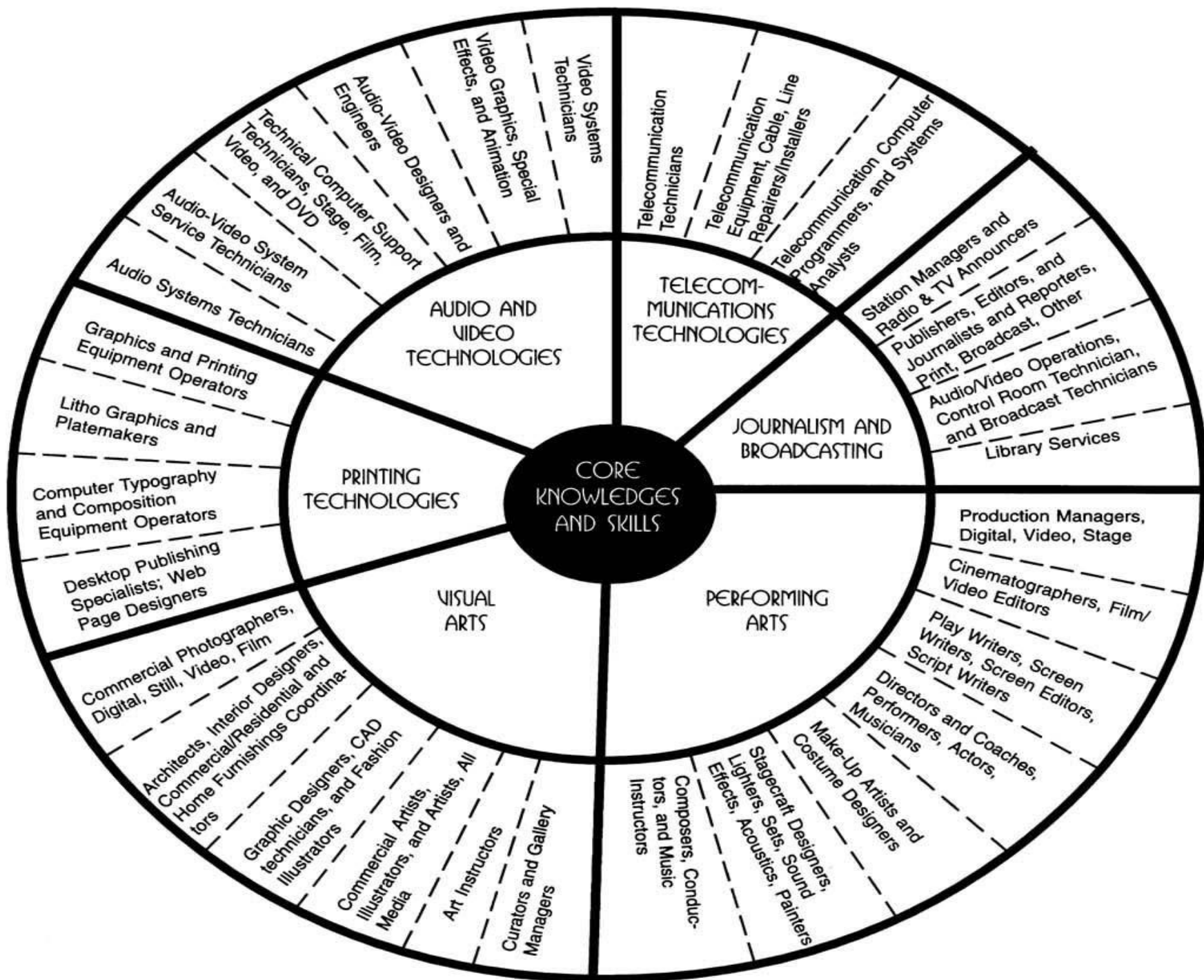
# “21<sup>st</sup> Century” Common Competencies

- ✓ **Collaboration**
- ✓ **Communications**
- ✓ **Critical Thinking**
- ✓ **Creativity and Innovation**
- ✓ Information Technology
- ✓ Organizational Systems
- ✓ Safety, Health and Environmental
- ✓ Leadership and Teamwork
- ✓ Professional Ethics and Legal Responsibilities
- ✓ Employability and Career Development



# Process Cycle

- Review Objectives
- Expected Outcomes
- Describe Methods
- Summaries of Findings
- Articulate Dependencies
- Next Steps



# More Definitions

Career Clusters are broad groups of occupations and industries.

- “Health Sciences” is an example. The U.S. Department of Education created 16 of these Career Clusters. You want to ask yourself, “Which cluster includes the occupations that match my interests?”
- Career clusters are subdivided into “career pathways”. For example, the Health Science Cluster includes five career pathways.

Career Pathways are a series of courses that prepare you for an occupational field.

- For example, courses in the “Therapeutic Services” Pathway lead to jobs like radiologist, physician, or physical therapist.
- Career clusters and pathways are NOT organized according to career interests (They are organized around broad industry or economic areas).
- This means some jobs are in more than one cluster! For example, the job “accountant” is found in two clusters: a) Business, Management and Administration and b) Government and Administration.

# What is a Career Pathway?

**The term “career pathway” means a combination of rigorous and high-quality education, training, and other services that—**

- aligns with the skill needs of industries in the economy of the State or regional economy involved;
- prepares an individual to be successful in postsecondary education options
- includes counseling to support career goals;
- includes training for a specific occupation or occupational cluster;
- organizes education, training, and other that accelerates the educational and career advancement of the individual to the extent practicable;
- enables an individual to attain a secondary school diploma or its recognized equivalent, and at least 1 recognized postsecondary credential.

# Why do we Need to Integrate?

The Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 said:

*“The purpose of the act is to provide a technically skilled workforce to help the United States become more competitive in a global economy.*

***This goal will be achieved by  
integrating academic and  
vocational education.”***