

# Using Pathway Packages to Create High-Quality CTE Programs



[www.realityworks.com](http://www.realityworks.com)

**Realityworks**  
Live it. Learn it.™

# Innovative Learning Tools for Skills Training

FCS



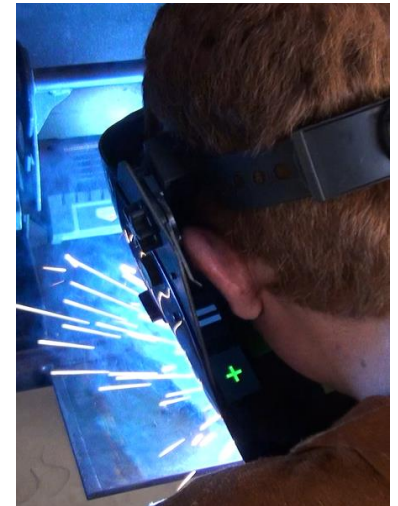
Health  
Sciences



Agriculture



Welding and  
Trade Skills



[www.realityworks.com](http://www.realityworks.com)

**Realityworks**  
Live it. Learn it.™

# Agenda



ACTE's Quality CTE Program of Study Framework™

Explore Realityworks packages

Alignment of Realityworks packages to ACTE framework

Discover free resources to help jumpstart your CTE pathways

[https://unsplash.com/photos/r22qS5ejODs?utm\\_source=unsplash&utm\\_medium=referral&utm\\_content=creditShareLink](https://unsplash.com/photos/r22qS5ejODs?utm_source=unsplash&utm_medium=referral&utm_content=creditShareLink)

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# ACTE's Quality CTE Program of Study Framework™

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# ACTE's Framework

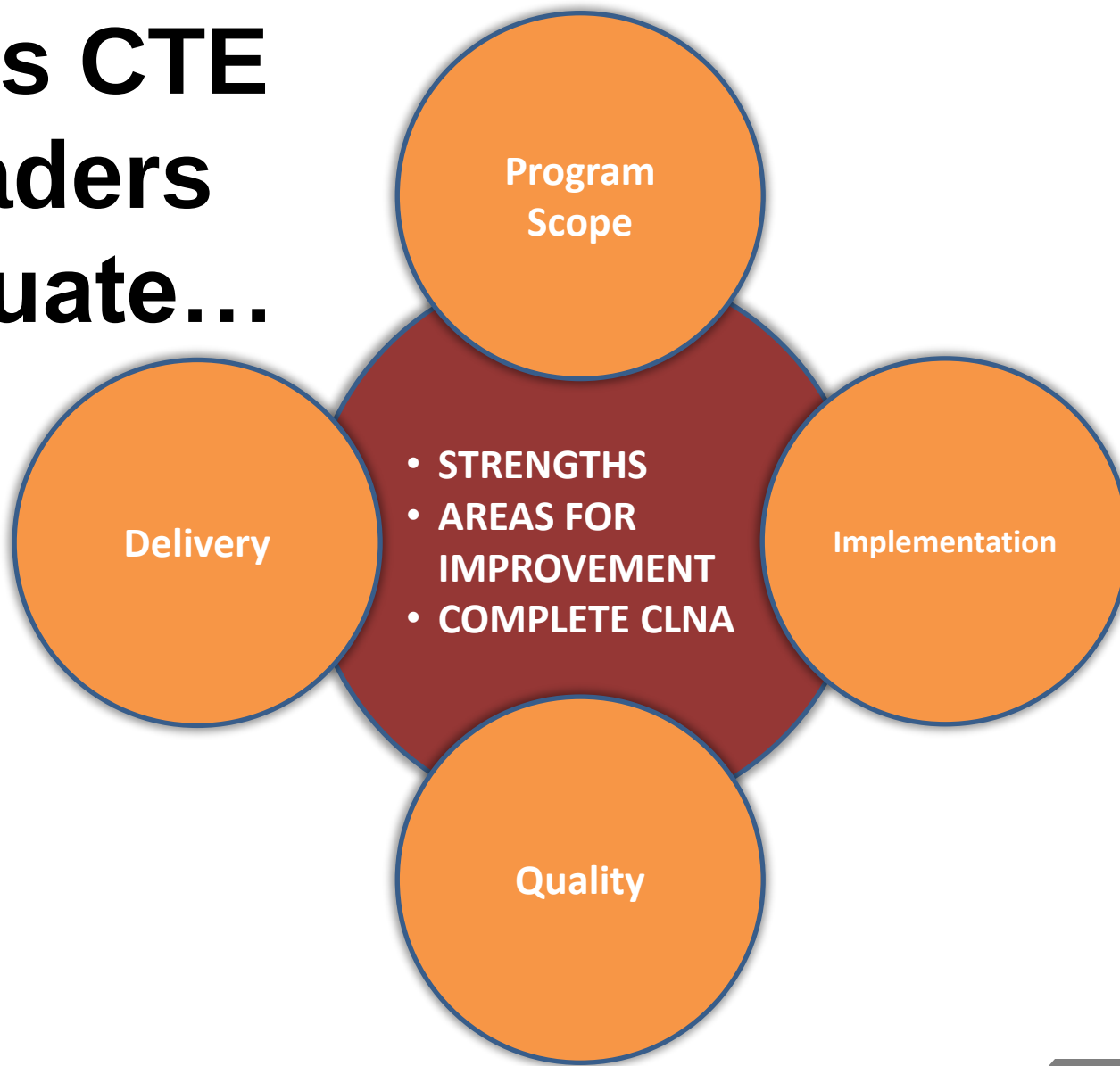


1. Standards-aligned and Integrated Curriculum
2. Sequencing and Articulation
3. Student Assessment
4. Prepared and Effective Program Staff
5. Engaging Instruction
6. Access and Equity
7. Facilities, Equipment, Technology and Materials
8. Business and Community Partnerships
9. Student Career Development
10. Career and Technical Student Organizations
11. Work-based Learning
12. Data and Program Improvement

<https://www.acteonline.org/wp-content/uploads/2019/01/HighQualityCTEFramework2018.pdf>

www.realityworks.com

# Helps CTE Leaders Evaluate...

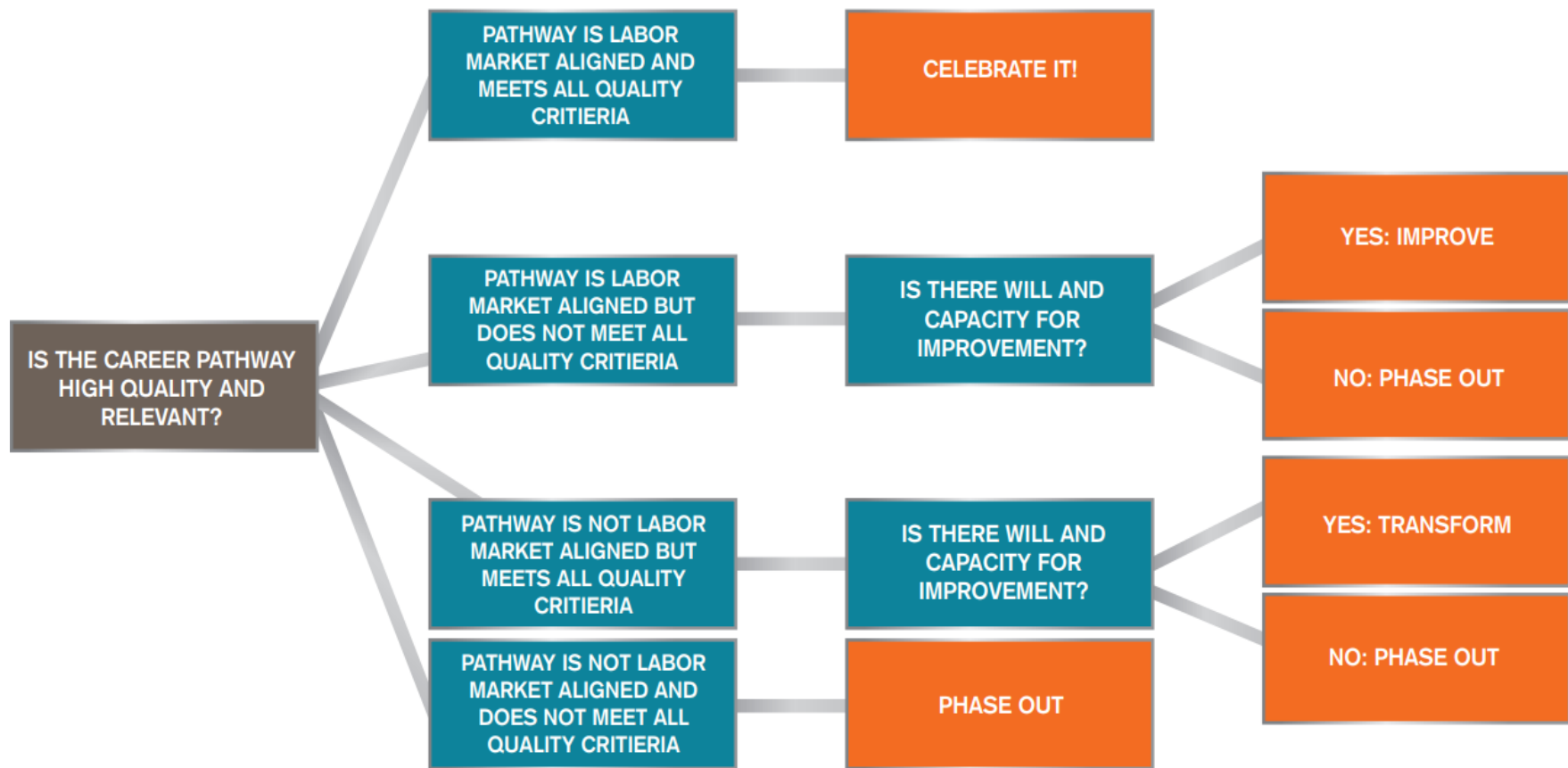


[www.realityworks.com](http://www.realityworks.com)

# SELF-EVALUATION INSTRUMENT

|                                                                                                                                                                                                                                                                                      | 0=<br>Not at all<br>achieved | 1=<br>Minimally<br>achieved | 2=<br>Moderately<br>achieved | 3=<br>Substantially<br>achieved |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|------------------------------|---------------------------------|
| <b>1. Standards-aligned and Integrated Curriculum</b><br><i>This element addresses the development, implementation and revision of the program of study curriculum, including the relevant knowledge and skills taught in the program and the standards on which they are based.</i> |                              |                             |                              |                                 |
| a. The curriculum is based on industry-validated technical standards and competencies.                                                                                                                                                                                               |                              |                             |                              |                                 |
| b. The curriculum is aligned with relevant content and standards for core subjects, such as reading, math and science, including federal, state and/ or local standards, as appropriate.                                                                                             |                              |                             |                              |                                 |
| c. The curriculum incorporates employability skill standards that help students succeed in the workplace, such as problem solving, critical thinking, teamwork, communications and workplace etiquette.                                                                              |                              |                             |                              |                                 |
| d. The program of study curriculum is developed with employer input to prepare students for both further education and in-demand and emerging careers.                                                                                                                               |                              |                             |                              |                                 |
| e. The curriculum allows for student application of integrated knowledge and skills in authentic scenarios.                                                                                                                                                                          |                              |                             |                              |                                 |
| f. Program of study standards are publicly available and accessible to students, parents/guardians (as appropriate), partners and the public.                                                                                                                                        |                              |                             |                              |                                 |
| g. The curriculum is reviewed regularly by all relevant stakeholders and revised as necessary to reflect the latest advances in the industry, evidence-based program models and evaluations of student performance.                                                                  |                              |                             |                              |                                 |
| <b>TOTAL POINTS EARNED</b>                                                                                                                                                                                                                                                           |                              |                             |                              |                                 |
| <b>TOTAL POINTS POSSIBLE</b>                                                                                                                                                                                                                                                         |                              |                             |                              | <b>21</b>                       |
| <b>PERCENTAGE SCORE (points earned/points possible)</b>                                                                                                                                                                                                                              |                              |                             |                              |                                 |

# IS THE PATHWAY HIGH QUALITY & RELEVANT?



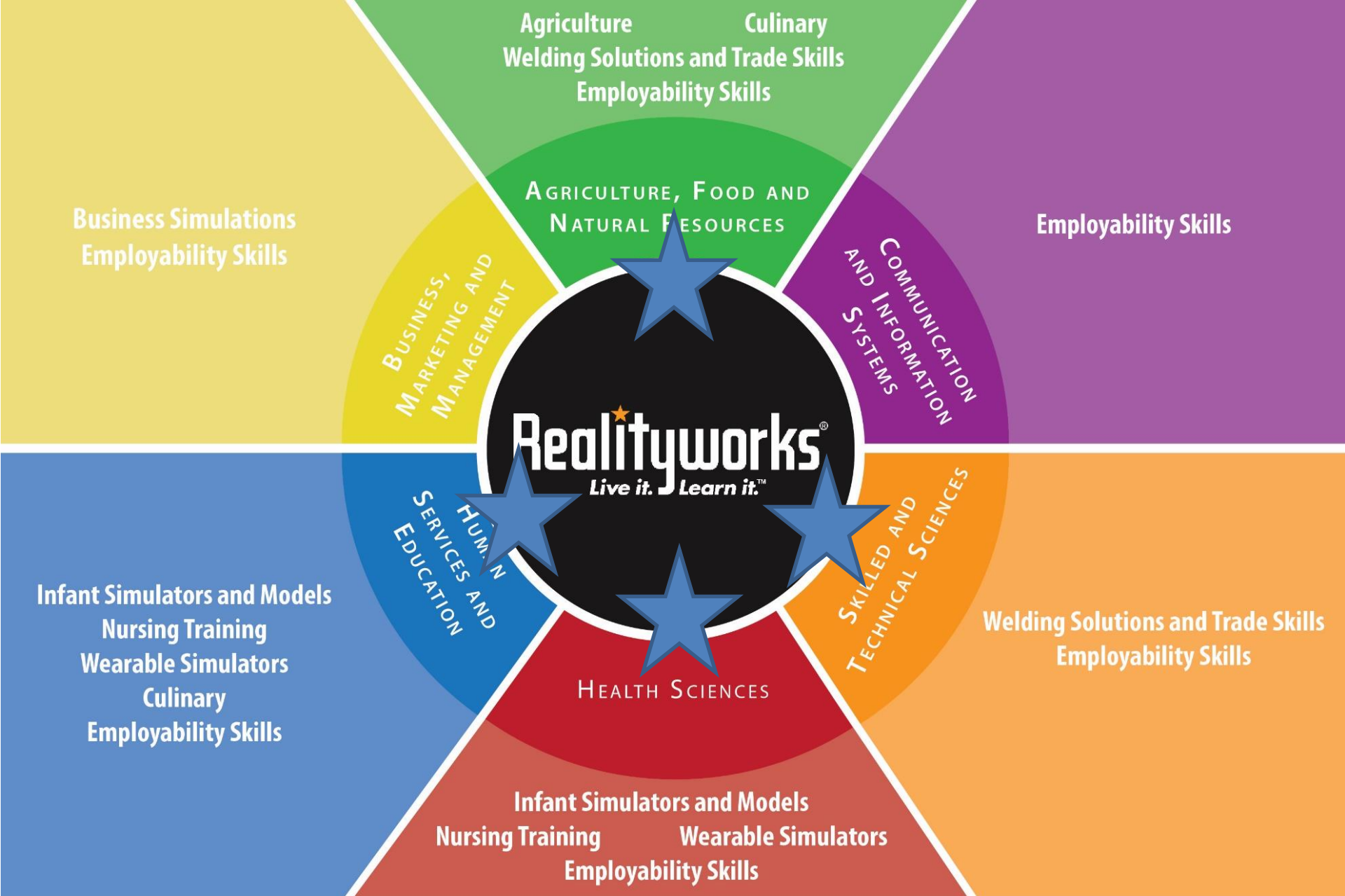
[https://cte.careertech.org/sites/default/files/files/resources/18-138%20AdvanceCTEProgramEvaluationAnd%20InterventionGuide071318\\_1.pdf](https://cte.careertech.org/sites/default/files/files/resources/18-138%20AdvanceCTEProgramEvaluationAnd%20InterventionGuide071318_1.pdf)

[www.realityworks.com](http://www.realityworks.com)

# Realityworks Pathway Packages

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™



# Pathway Packages = Turnkey Solutions



[www.realityworks.com](http://www.realityworks.com)

# Family & Consumer Science

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Early Childhood Packages



## Early Childhood Intro

- 17 hands-on tools
- 20 hours of content



## Small Early Childhood

- 30 hands-on tools
- 25 hours of content



## Large Early Childhood

- 43 hands-on tools
- 30 hours of content

[www.realityworks.com](http://www.realityworks.com)

# NEW Child Care Experience



## 4-Baby or 8-Baby Package

- 10 hours of content
- Aligns to National FCS and Infant Toddler CDA Competency Standards

[www.realityworks.com](http://www.realityworks.com)

# Education & Training Package



## Education & Training Pathway

- 11 hands-on tools
- 80 hours of content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Culinary Packages



## Culinary Kits Bundle

- 5 hands-on tools
- 40 hours of content



## Culinary Pathway

- 32 hands-on tools
- 60 hours of content

[www.realityworks.com](http://www.realityworks.com)

# Health Science

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Nursing/Nursing Assistant Packages



## Basic Nursing

- 46 hands-on tools
- 45 hours of content

## Certified Nursing Assistant

- 15 hands-on tools
- 30 hours of content

[www.realityworks.com](http://www.realityworks.com)

# Medical Assistant Package



## Medical Assistant Pathway

- 30 hands-on tools
- 90 hours of content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# 2 NEW Health Science Packages



## Allied Health

- 13 hands-on tools
- 64 hours of content

## Patient Care Technician

- 30 hands-on tools
- Up to 90 hours of content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# NICU Simulation Package



on tools  
f content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Sports Medicine Package



## Sports Medicine Pathway

- 14 hands-on tools
- 84 hours of content

[www.realityworks.com](http://www.realityworks.com)

- 14 hands-on tools
- 25 hours of content



# Dental Assistant Package



- 10 hands-on tools
- 50 hours of content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Trade Skills

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Trade Skills Packages



## Basic Trade Skills

- 10 hands-on tools
- 55 hours of content



## Manufacturing

- 20 hands-on tools
- 80 hours of content



## Maintenance & Construction

- 11 hands-on tools
- 30 hours of content



## Welding Intro. Pack

- 3 hands-on tools
- 50 hours of content

[www.realityworks.com](http://www.realityworks.com)

# Agriculture

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Animal Systems Packages



## Bovine Skills Bundle

- 5 hands-on tools
- 17 hours of content



# Animal Systems 1

- 15 hands-on tools
- 50 hours of content



## Animal Systems 2

- 30 hands-on tools
- 75 hours of content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Vet Science Package

## Canine Vet Trainer



Hands-on tools  
of content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Animal Ag Education Kits



5 hands-on tools  
9 hours of content

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Plant/Hydroponics Packages



## Plant Systems

- 6 hands-on tools
- 16 hours of content



## Hydroponics/Plant Systems

- 9 hands-on tools
- 26 hours of content

[www.realityworks.com](http://www.realityworks.com)

# NEW Career Exploration

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

[illegible][illegible][illegible][illegible]

The image displays a variety of HealthQuarks educational materials. At the top left is a brown cardboard box with a white label. Below it is a calendar and a grid. To the right are several informational cards, including one titled '100% Fruits and Vegetables' and another titled '100% Fruits and Vegetables'. In the center is a baby doll wearing a pink shirt and a white diaper, standing on a black bag. To the right of the doll is a striped shirt. Below the doll are some food items, including a banana and some bread. The HealthQuarks logo is visible on the black bag.

**Realityworks®**  
Live it. Learn it.™

# Employability Skills

[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Employability/Leadership Skills Programs



[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Custom Packages



Looking for custom packages for the following initiatives?

- STEM
- Middle School
- Career Exploration
- Employability Skills
- ESSER funds

**CONTACT US!**



[www.realityworks.com](http://www.realityworks.com)

**Realityworks®**  
Live it. Learn it.™

# Pathway Packages Can Improve or Transform CTE Programs

[www.realityworks.com](http://www.realityworks.com)

**Realityworks**<sup>®</sup>  
*Live it. Learn it.™*

# Our Pathway Packages Align!

1. Standards-aligned and Integrated Curriculum ★
2. Sequencing and Articulation
3. Student Assessment ★
4. Prepared and Effective Program Staff
5. Engaging Instruction ★
6. Access and Equity ★
7. Facilities, Equipment, Technology and Materials ★
8. Business and Community Partnerships
9. Student Career Development ★
10. Career and Technical Student Organizations ★
11. Work-based Learning ★
12. Data and Program Improvement

# **Standards-aligned and Integrated Curriculum**

- Includes lesson plans, slides, assessments, student worksheets
- Aligned to standards and prepares students for credentials
  - Incorporates academic and employability skills

## **Student Assessment**

- Includes formative and summative assessment
- Aligned to standards and prepares students for credentials
  - Developed by educators for educators

## **Engaging Instruction**

- Incorporates project-based, experiential, and contextualized instruction methods
- Relevant equipment and technology to support learning
  - Meets the needs of a diverse student population

# Curriculum Components

Introduction to Electrocardiography Curriculum

## Lesson One – Introduction to Electrocardiograms

### Lesson Objectives

#### Lesson Overview

Students will learn about electrocardiograms (ECG), interpretation of ECGs, and common arrhythmias.

After completing this lesson, participants will be able to:

- Describe the purpose and types of electrocardiograms (ECG)
- Explain how to perform an ECG
- Demonstrate correct placement of ECG leads
- Identify parts of a waveform
- Explain the characteristics of waves, intervals, and segments
- Determine heart rate using three methods
- Determine normal sinus rhythm and common arrhythmias

#### Lesson at a Glance

| Activity      | Materials                                                                                                                                                                                              | Preparation                                                                                                                                                                                                                                         | Approximate Class Time |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| FOCUS         | <ul style="list-style-type: none"> <li>Cardiac Conduction Pre-Quiz</li> <li>Cardiac Conduction Pre-Quiz Answer Key</li> </ul>                                                                          | <ul style="list-style-type: none"> <li>Print Student Cardiac Conduction Pre-Quiz (one per participant) or locate in the student workbook</li> </ul>                                                                                                 | 10 minutes             |
| LEARN: Part 1 | <ul style="list-style-type: none"> <li>ECG Leads and Obtaining Rhythm Strips slide presentation</li> <li>ECG Leads and Obtaining Rhythm Strips Answer Key</li> <li>ECG Standards (optional)</li> </ul> | <ul style="list-style-type: none"> <li>Prepare ECG Leads and Obtaining Rhythm Strips slide presentation for viewing</li> <li>Print Student ECG Leads and Obtaining Rhythm Strips (one per participant) or locate in the student workbook</li> </ul> | 20 minutes             |
| LEARN: Part 2 | <ul style="list-style-type: none"> <li>ECG Interpretation slide presentation</li> <li>ECG Interpretation Answer Key</li> <li>ECG Standards (optional)</li> </ul>                                       | <ul style="list-style-type: none"> <li>Prepare ECG Interpretation slide presentation for viewing</li> <li>Print Student ECG Interpretation (one per participant) or locate in the student workbook</li> </ul>                                       | 20 minutes             |
| LEARN: Part 3 | <ul style="list-style-type: none"> <li>Arrhythmias slide presentation</li> <li>Arrhythmias Answer Key</li> <li>ECG Standards (optional)</li> </ul>                                                     | <ul style="list-style-type: none"> <li>Prepare Arrhythmias slide presentation for viewing</li> <li>Print Student Arrhythmias (one per participant) or locate in the student workbook</li> </ul>                                                     | 10 minutes             |
| LEARN: Part 4 | <ul style="list-style-type: none"> <li>Interpreting Arrhythmias slide presentation</li> <li>Interpreting Arrhythmias Answer Key</li> <li>ECG Standards (optional)</li> </ul>                           | <ul style="list-style-type: none"> <li>Prepare Interpreting Arrhythmias slide presentation for viewing</li> <li>Print Student Interpreting Arrhythmias (one per participant) or locate in the student workbook</li> </ul>                           | 15 minutes             |

Realityworks  
LIFE SKILLS

7

TEACHER'S GUIDE

Introduction to Electrocardiography Curriculum

Name: \_\_\_\_\_ Class: \_\_\_\_\_

## Cardiac Conduction Pre-Quiz

Label the parts of the conduction system in the heart:

Anterior view of frontal section

- Purkinje fibers
- Left ventricle
- Right ventricle
- Antioventricular (AV) bundle (bundle of His)
- Sinoatrial (SA) node
- Bundle branch
- Arch of the aorta
- Anterior interventricular (AV) node

Realityworks  
LIFE SKILLS

10

QUIZZES

Introduction to Electrocardiography Curriculum

Name: \_\_\_\_\_ Class: \_\_\_\_\_

## Test Your Knowledge

- Name the rhythm:
- Name the rhythm:
- Name the rhythm:
- Name the rhythm:
- Name the rhythm:

Realityworks  
LIFE SKILLS

41

ASSESSMENTS

Introduction to Electrocardiography Curriculum

Name: \_\_\_\_\_ Class: \_\_\_\_\_

## ECG Leads and Obtaining Rhythm Strips

- What does an electrocardiogram record?
- Who invented the ECG and distinguished five deflections in a waveform?
- In the diagram to the right, place a circle around the waves produced in the atria.
- In the diagram to the right, place a square around the waves produced in the ventricles.
- Leads pick up electrical activity from different \_\_\_\_\_.
- Which ECG, 3-lead or 12-lead, is the most accurate in diagnosing heart conditions?
- Leads I through III use negative and positive electrodes to measure activity between points. They are called \_\_\_\_\_.
- Augmented and precordial leads measure activity at one point so they are called \_\_\_\_\_.

Complete the following chart on leads and corresponding view of the heart:

|          | AVR     | None | Septal | V4 |
|----------|---------|------|--------|----|
| I        | Lateral |      |        |    |
| II       |         |      |        |    |
| III      |         |      |        |    |
| aVR      |         |      |        |    |
| inferior |         |      |        |    |

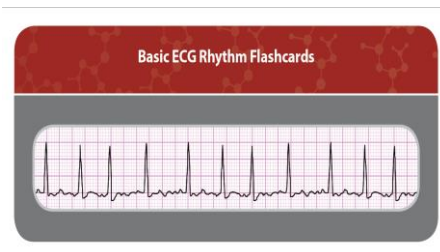
10. Place leads over \_\_\_\_\_, not over bony prominences, thick muscles, or skin folds.

Color Abbreviations: Conduction: Green; 12 or 14 leads: Red; Conduction: Green; 12 or 14 leads: Red

Realityworks  
LIFE SKILLS

15

STUDENT WORKBOOK



FLASHCARDS

Normal Sinus Rhythm

| Parameter   | Value                          | Normal Range                   |
|-------------|--------------------------------|--------------------------------|
| Rhythm      | Regular                        | Regular                        |
| Rate        | 60-100                         | 60-100                         |
| P Wave      | Before QRS, Upright, <0.11 sec | Before QRS, Upright, <0.11 sec |
| PR Interval | 0.12-0.20 sec                  | 0.12-0.20 sec                  |
| QRS complex | Upright                        | Upright                        |
| QT interval | 0.36-0.44 sec                  | 0.36-0.44 sec                  |
| Extra beats | None                           | None                           |

Introduction to Electrocardiography Curriculum

Realityworks  
LIFE SKILLS

16

PRESENTATION SLIDES

www.realityworks.com

Realityworks®  
Live it. Learn it.™

## **Facilities, Equipment, Technology and Materials**

- Our learning aids reflect current workplace, industry and/or occupational practices and requirements
  - Aligned to curriculum standards and program objectives
  - Demonstrates safe and appropriate use of equipment

## **Student Career Development**

- Curriculum and skills training promote career exploration

## **Career and Technical Student Organizations**

- Learning tools and curriculum provide opportunities for students to prepare for CTSO competitive events

## **Access and Equity**

- Our experiential learning tools provide students the opportunity to achieve success
- Resources are free from bias, inclusive, and non-discriminatory

## **Business and Community Partnerships**

- We partner with districts in a variety of ways

(We serve on advisory boards, curriculum review teams, provide in-kind support, and help with program promotion)

# Hands-On Learning Aids



- Recruit, develop interest, provide opportunity, & train skills
- Improves Student Engagement!
- Manage expanding need for skilled workers
  - pre-qualify students
- Increase skill development while reducing cost & training time
- Leading technology is an attractive community outreach strategy too...
  - Gain support for programs
  - Show the value of CTE

[www.realityworks.com](http://www.realityworks.com)

# Work-based Learning

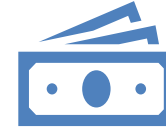


- **Opportunity to practice and master the technical skills they'll need to perform real tasks**
- **Real-time feedback helps students learn from their mistakes and develop correct techniques**
- **Scenario-based learning**

# Next Steps...How Can We Help?



Meet with you to  
discuss program  
needs



Create quotes that  
meet your budget



Provide  
Alignments



Attend CTE teacher  
meetings at your district  
(virtual or in-person)



Provide product  
information and make  
recommendations

[www.realityworks.com](http://www.realityworks.com)

**Realityworks<sup>®</sup>**  
*Live it. Learn it.<sup>™</sup>*

**THANK  
YOU!**



[karen.mcdowell@realityworks.com](mailto:karen.mcdowell@realityworks.com)