





Engage Students Through Reimagined Wearable Pregnancy Simulations

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Agenda

- The Power of Wearable Simulation
- Pregnancy Profile 2.0 and Pregnancy Profile 2.0 Obstetrics Simulator
- Demonstration
- Curriculum Overview
- Free Activities
- Free Resources
- Q&A

The Power of Wearable Simulation

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Developing Empathy

- *The incorporation of the student in the patient's position during healthcare simulation allows for a challenging and empathetic experience that **helps the learners to understand life from a patient's perspective**, both physically and emotionally.*

<https://www.healthysimulation.com/52771/healthcare-simulation-empathy-suits/>

Practicing Soft Skills

- *Unlike manikin simulations which only allow learners to practice procedural skills, high-fidelity wearable simulators provide learners with the **ability to practice communication skills.***

<https://www.healthysimulation.com/37193/avkin-wearable-simulators/>

Learning Technical Skills

- *Through the use of the Wearable Simulated Maternity Model, Andersen et al. found that students enjoyed the authentic immersive approach to midwifery simulation using real people to practice clinical and communication skills, rather than inanimate objects such as manikins or part task training models (*Andersen et al., 2019).*

<https://slejournal.springeropen.com/articles/10.1186/s40561-020-00127-6>

Pregnancy Profile 2.0 and Pregnancy Profile 2.0 Obstetrics Simulator

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Pregnancy Profile 2.0 Simulator



Pregnancy Profile 2.0 Obstetrics Simulator



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Live it. Learn it.™



Pregnancy Simulations

Package Contents

Pregnancy Profile 2.0 Simulator

- Rib constrictor belt
- Amniotic sac
- Fetal insert (30 weeks gestation)
- Bladder pressure weight bag
- Fetal Development Poster
- Quick start guide
- Carrying case
- Downloadable curriculum
- 2-year limited warranty

Pregnancy Profile 2.0 Obstetric Simulator

- Rib constrictor belt
- Amniotic sac
- Fetal Inserts (30 and 38 weeks)
- Bladder pressure weight bag
- Leopold's Maneuvers poster
- 2 RealityScopes
- 4 fetal heartbeat audio cards (normal, 30 weeks; normal, 38 weeks; tachycardia; and bradycardia)
- Quick start guide
- Carrying case
- Downloadable curriculum
- 2-year limited warranty



Features

- Each one-size-fits-most pregnancy vest features:
 - Amniotic sac to simulate elevated body temperature and fetal movement
 - Realistic fetal insert (30 weeks gestation) to show fetal development milestones
 - Rib constrictor belt to simulate pressure from fetal limbs and difficulty breathing
 - Weight bag to simulate bladder pressure
 - Simulates 25- to 30-pound weight gain
- Fetal development poster or Leopold's Maneuvers poster for a visual classroom reference
- Soft-sided bag for easy storage and transport
- Comprehensive curriculum integrates the use of the simulation experience and includes facilitator instructions, slide presentations, and assessment
- Great for in-class training, demonstrations, and remote learning
- Hands-on practice performing Leopold's Maneuvers
- Hear four fetal heart rates including normal, tachycardia and bradycardia with the RealityScope



Wearable Pregnancy Simulation Market

Product	Pregnancy Profile 2.0	Pregnancy Profile 2.0 Obstetric Simulator	Empathy Belly	With Child	Erler Zimmer Maternity Simulator	Pregnancy Experience Simulation Suit	KOKEN Maternity Simulation Jacket II
Price	\$1,199	\$2,499	\$979-\$1045	\$999	\$1,185	\$1379-\$1420	\$1,166
Photo							
Curriculum	12 lessons, 26-30 hours	12 lessons 26-30 hours	none	none	none	none	none
Warranty	2 years	2 years	1 year	none listed	1 year	none listed	none listed
Simulator Garment	One-size fits most adjustable vest	One-size fits most adjustable vest	Adult and teen Sized garment with smock	Tunic over simulation garment	Simulation garment	Adjustable garment	Adjustable garment
Components							
Storage	Soft sided bag	Soft sided bag	Soft sided bag	rolling suitcase	none	none	none
Poster	Fetal Development	Leopold's Manuevers	Third Trimester of Pregnancy	Pregnancy Timeline chart	none	none	none
Pregnancy Simulation	Translucent amniotic sac with 30 week fetus, filled with water to simulate elevated body temperature and fetal movement	Translucent amniotic sac with 30 and 38 week fetus, filled with water to simulate elevated body temperature and fetal movement	Water bladder with balls	Foam belly	Foam Belly	Foam Belly	Foam Belly
	Realistic fetus models to show fetal development milestones	Realistic fetus models to show fetal development milestones	none	none	none	none	none
	Rib constrictor belt to simulate pressure from fetal limbs and difficulty breathing	Rib constrictor belt to simulate pressure from fetal limbs and difficulty breathing	Rib belt	none	none	none	none
	Weight bag to simulate bladder pressure	Weight bag to simulate bladder pressure	Bladder Pouch	none	none	none	none
	Simulates 25-30 pound weight gain	Simulates 25-30 pound weight gain	30 pounds	25 pounds	unknown	unknown	unknown
	Pendulous breast inserts - removable	Pendulous breast inserts - removable	Breast inserts - removable	Not removable	Not removeable	Breast inserts - removable	Not removable
Added Features	None	Practice Leopold's Maneuvers inutero with the 38 week insert	none	none	none	none	none
	None	Listen to four different fetal heart sounds with the RealityScope and audio cards	none	none	none	none	none
Misc			Release forms, instructors manual and DVD	50 Comfort Measures in Pregnancy booklet 1 presentation guide			

Demonstration

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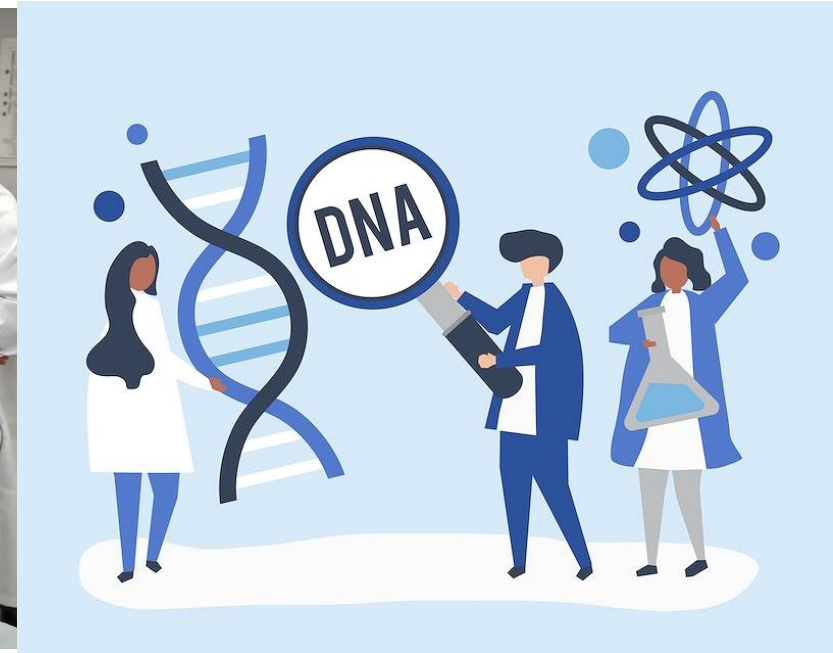
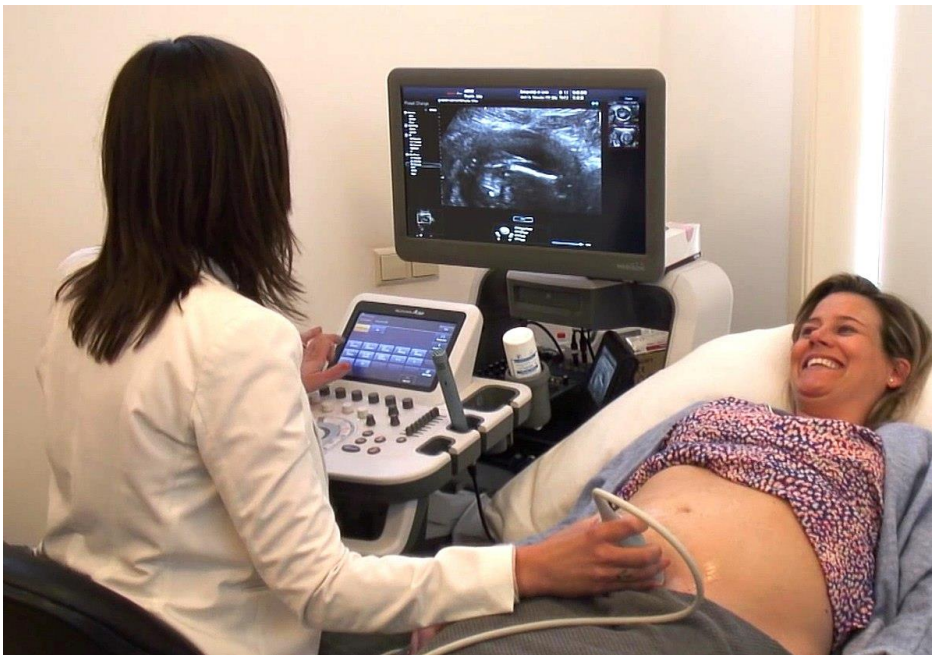
Curriculum Overview

Lesson Topics

**26-32
hours**

- Career Exploration
- Physical Changes of Pregnancy
- Pregnancy Symptoms and Discomforts
- Fetal Development
- Medical Aspects of Pregnancy
- Pregnancy Risks to the Mother and Child
- Healthy Lifestyle in Pregnancy
- Pregnancy Myths and Truths
- Leopold's Maneuvers
- Birth Process (Three Stages of Labor)
- Emotional Impact, Stress, and Postpartum Depression
- Global Context for Maternal Health

Curriculum Highlights – Career Exploration

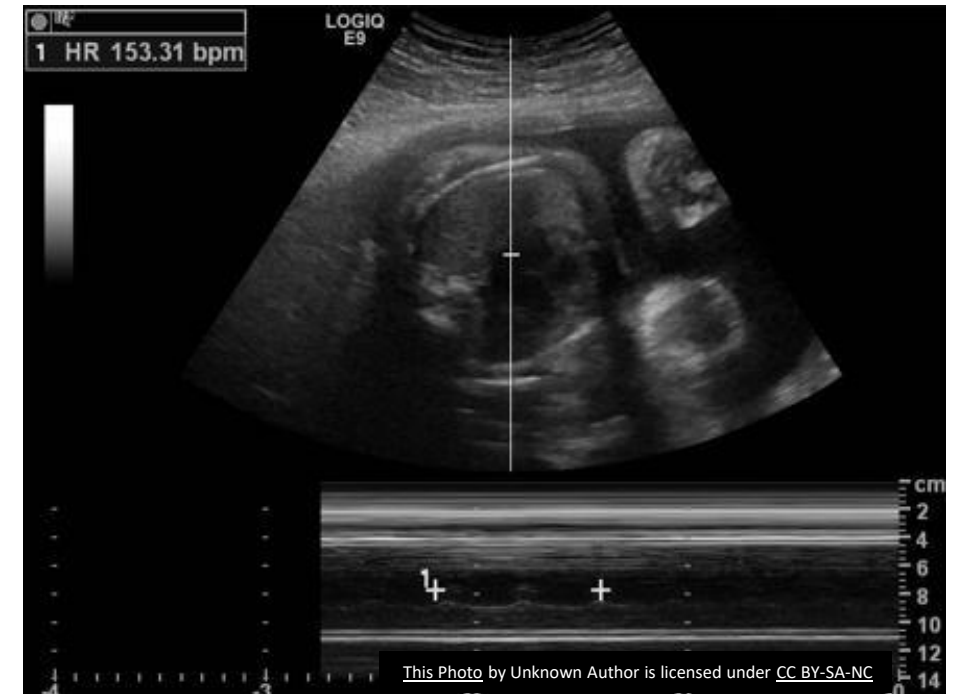


Curriculum Highlights – Immersive Pregnancy Simulation Experience



Curriculum Highlights – Fetal Heart Sounds

- Fetal tachycardia
- Fetal bradycardia
- Normal 30-week heart sounds
- Normal 38-week heart sounds



Curriculum Highlights – Leopold's Maneuvers



Steps

Fundal Grip

- Locate the fundus:
 1. Face the patient's head.
 2. Place hands on the upper middle of abdomen, toward the xiphoid process (middle of the rib cage).
 3. With fingers touching each other and elbows out, palpate gently downward with tips of the fingers.

Umbilical Grip

- Palpation of the uterine surface from fundus toward pubic symphysis.
- Looking for small parts (could be arms or legs) and the smooth fetal back.
 1. Both hands slide down from the uterine fundus towards the lateral uterine walls.
 2. Hold the nondominant hand firmly on one side of the abdomen.
 3. Using the palm of the dominant hand, gently palpate the other side of the gravid uterus.
 4. Repeat using the opposite side.

1st Pawlick

- Determine Presentation
 1. Make a "C" with the thumb and fingers of your dominant hand above the pubic symphysis.
 2. Grasp the presenting part of the baby just above the pubic bone.
 3. Tighten the "C" of the thumb and fingers to grasp the lower uterus and baby.

2nd Pawlick

1. Continue with the "C" grasp on the baby and move the hand upward.
 - If the presenting part moves, it is not engaged.
2. Now move right and left (lateral movements).
 - Gives a good guess of baby's weight and amount of amniotic fluid.
 - Also confirms breech or head as presenting part.

Pelvic Grip

- Similar to the 1st maneuver, except facing the mother's feet.
 1. Set the palms on either side of the lower abdomen, with the tips of the fingers facing downward toward the pelvic inlet.
 2. Administer firm pressure using your fingertips.
 3. Continue to move both hands about the right and left sides of the uterus towards the pubic bone.
 4. In the cephalic fetus, the forehead will be located where there is a larger gap. If the head of the fetus is well flexed, it should be on the opposite side from the back of the fetus.

Visualize



Free Activities From the Curriculum

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Trimester Development Mix-Up

Trimester Characteristics

The sperm joins the egg in the fallopian tube.	Able to feel pain.
Cells rapidly divide. The embryo floats toward the uterus.	Vocal cords are used to cry silently.
Embryo implants itself in the wall of the uterus.	Muscles get longer and are easier to move.
Backbone, spine, spinal cord, brain and nervous system form.	Mother feels kicking and movement inside her. Fetus is cushioned in liquid called amniotic fluid.
Lungs, intestines, and beginnings of urinary system start to develop.	Adult taste buds are formed.
Heart starts beating.	Eyebrows, eyelashes, and hair start to grow.
Placenta starts working.	Fetus is able to grasp things with hands. Kicking continues.
Spine and spinal cord grow quickly.	Fetus can hear voices and recognizes mother's voice.
Facial features become visible.	Fingernails and fingerprints appear.
Muscle system is formed.	Sex organs are formed.
Movement begins.	Fetus starts growing quickly in size.
Embryo is about a 1/2 inch long.	Fetus is covered with downy hair called lanugo.
Arms, legs, fingers and toes form.	Fetus inhales amniotic fluid to practice breathing.
Brain waves can be measured.	Skin is covered by a waxy substance called vernix.
Heart is almost completely developed.	Nourishment from the mother through the umbilical cord continues.
Baby teeth form in the gums.	Fetus sleeps most of the day.
Brain is physically fully formed.	Fetus gains the most weight and grows longer.

- Cut the sections apart
- Create 3 piles by trimester
- Put each characteristic into the trimester you believe is the correct one
- As a class, share answers until each pile is correct
- Ask the debrief questions

<https://www.realityworks.com/wp-content/uploads/2023/12/Pregnancy-Profile-2.0-Curriculum-SAMPLE.pdf>

Blog Point of View Questions

Instructions: Search online for a pregnancy blog or a pregnancy video from either parents' point of view. Write a paragraph on the back of this sheet, answering some of the following questions.

- What were their first reactions upon learning of the pregnancy?
- Was this a planned pregnancy?
- Who did they tell first? What were the reactions of these persons?
- What physical and emotional changes did they experience? Any challenges or difficulties?
- As the pregnancy progressed, what changes did they notice?
- Are there any fears about the birth or delivery?
- How do they feel they will do as parents of a newborn?
- Do they feel they are physically, mentally, and financially ready to be parents?
- How do they view their role(s) as a parent?
- What advice would they give to someone considering becoming a parent? Would this advice differ if it were someone in their twenties or thirties versus someone in their teens?



Genetic Diseases Project

Part II: Project Instructions

Topic 1

- Introduction with definition of the disease, including its features, which gene is affected, and symptoms of the disease and whether they change as the person ages

Topic 2

- Risk factors contributing to a person having this disease, which may include genes, environmental contaminants exposure (teratogens), lifestyle factors, etc.

Topic 3

- Incidence of the disease
- Any pertinent data, such as whether the rate is increasing or decreasing and how the incidence of the disease compares with other first world (developed) nations versus third world (undeveloped) nations

Topic 4

- Screening procedures that can be done to detect the presence of the disease
 - What is sensitivity of the screening procedure?
 - Is the screening widely available or not?
 - Is it offered routinely?
- Follow-up diagnostic procedure to confirm a positive screening
 - What is sensitivity and specificity of the diagnostic procedure?

Topic 5

- Prenatal treatment of the disease

Topic 6

- Multidisciplinary healthcare treatments for the child born with the disease during the neonatal period into childhood
 - Briefly describe what the treatments consist of
 - What occupations within the allied healthcare professions deal with the condition?

Topic 7

- Prognosis for people with this disease long term, including life expectancy, quality of life, ability to participate in society, etc.

Topic 8

- Conclusion/summary

Topic 9

- References for information
- *All members are responsible for contributing to this page*

General Requirements:

- Create a professional and visually appealing presentation, containing images or other media
- Present the info in an empathetic way, like you're talking about a family member
- Helpful Links: <https://www.wadsworth.org/programs/newborn/screening/screened-disorders>
- Review the grading rubric! If you cannot find the information, discuss with your instructor prior to the presentation day.

Part III Grading Rubric

Disease	Distinguished 16-20 points	Proficient 11-15 points	Apprentice 6-10 points	Novice 0-5 points
Topic 1 Introduction	Thoroughly and clearly explains the disease; empathetically explains symptoms; genetics/inheritance is outlined; use of graphics, videos, or drawings to illustrate.	Includes many important facts about the disease but may not include information about the genetics or inheritance.	Includes some important facts about the disease. Needs more information to show how it relates to biology and genetics.	Missing most relevant facts about the disease and how it relates to genetics.
Topic 2 Risk factors	Communicates the risk factors that can be associated with the genetic disease, including possible exposure to teratogens, high risk groups, characteristics of the parents, etc.	Includes a partial list of risk factors that are well known for the disease.	Only indicates one risk factor for the disease when more are known.	No mention of risk factors for the disease.
Topic 3 Incidence	Incorporates relevant data about people with the genetic disease in the U.S.A. May include information about demographics, additional countries, and affluence.	Contains some data about incidence of the disease in the U.S.A. but lacks any other information about incidence in the world.	Incorrect data presented or out-of-date data that has changed dramatically	Omits data relating to incidence of the disease
Topic 4 Screening and Test	Demonstrates all prenatal screenings and tests, including their sensitivity data, availability, and any additional tests available after birth, such as NMS.	Incorporates screening and availability information but not sensitivity or diagnostic test.	Only includes information on screening or testing and respective sensitivity. Does not mention availability.	Only includes information on screening or test and no mention of sensitivity or availability.
Topics 5 and 6 Treatment	Incorporates prenatal treatments throughout the lifespan, including occupations that specialize in the care.	Presents some treatments during initial postnatal period and the specialized occupations.	Limited information on treatments and no mention of occupations.	Incorrect or absent information on treatment or occupations.

3 Ideas for Teaching Pregnancy and Fetal Development Topics

1

Use Everyday Household Objects to Understand Fetal Development Month by Month

2

Create a 1-Week Pregnancy Meal Plan

3

Make an At-Home Pregnancy Simulation Experience

4

[Link: 3 Ideas for Teaching Pregnancy and Fetal Development Topics Remotely – Realityworks](#)

More Resources

- Tips for Teaching Birth Defects and Disorders Content Webinar
- <https://www.realityworks.com/tips-for-teaching-birth-defect-and-disorders-content/?v=7516fd43adaa>
- Child Development Online Course Free Trial
- <https://www.realityworks.com/product/child-development-online-course/?v=7516fd43adaa>

Lesson Plans

- Pregnancy
- Advocates for Youth
- <https://www.advocatesforyouth.org/wp-content/uploads/storage/advfy/lesson-plans/lesson-plan-pregnancy-part-i-and-ii.pdf>

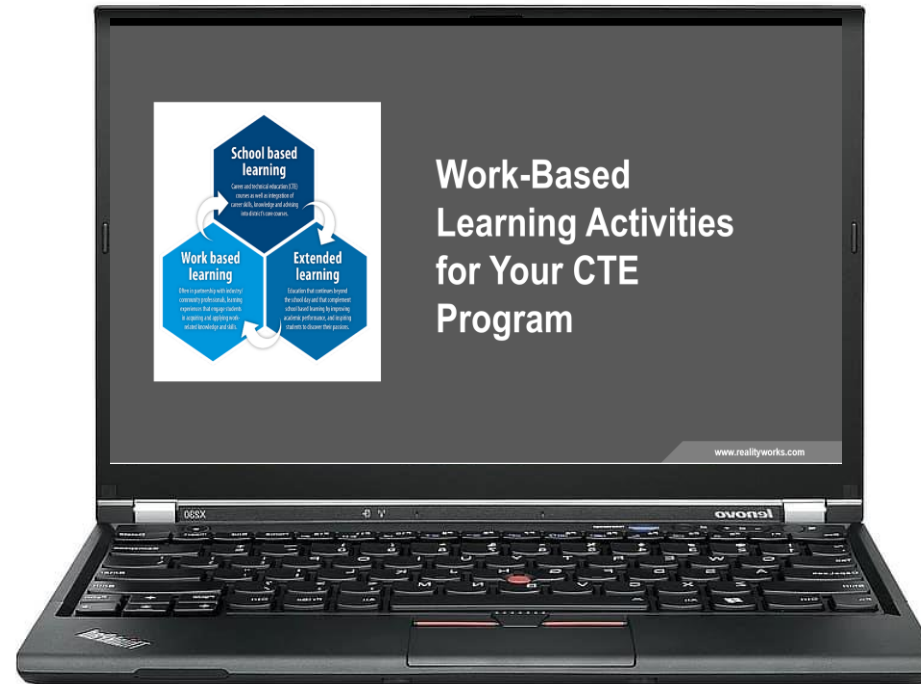
- Pregnancy
- Youth Do It
- <https://www.youthdoit.org/assets/Uploads/YOUTH-DO-IT-TRAINERS-Pregnancy-Final.pdf>

- Preparing for Parenthood: Pregnancy and Labor
- TX CTE Resource Center
- [Lesson Plan Preparing for Parenthood Pregnancy and Labor_0.docx \(live.com\)](#)

- Pregnancy
- We Teach FCS
- [Pregnancy | we-teach-facs \(weteachfacs.com\)](#)



Realityworks Webinars



<http://realityworks.com/webinars>

Career Exploration



<https://www.realityworks.com/resources/free-lesson-plans/?v=7516fd43adaa>

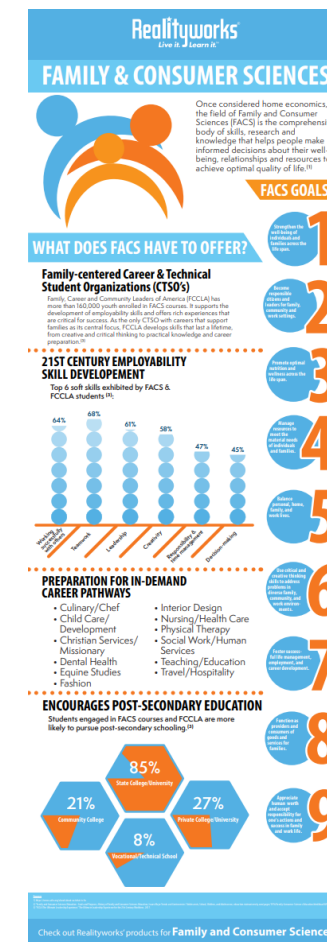
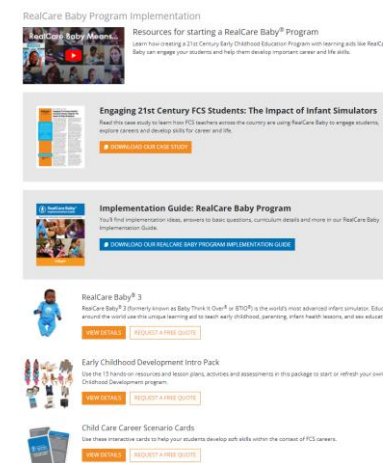
More FREE Resources

FREE posters/infographics

<https://www.realityworks.com/resources/realityworks-interactive-posters-downloads/>

FCS Program Implementation Resources

<https://www.realityworks.com/fcs-program-implementation-resources/>



Additional Resources



- Realityworks Blog
 - <http://realityworks.com/blog/>
- Facebook
 - <https://www.facebook.com/realityworksinc>
- Instagram
 - <https://www.instagram.com/realityworksinc>
- YouTube
 - <https://www.youtube.com/user/RealityworksInc>
- LinkedIn
 - <https://www.linkedin.com/company/realityworks/mycompany/verification/>
- Twitter
 - <https://twitter.com/RealityworksInc>

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Leadership Soft Skills Program



Contemporary Entrepreneurship Program

One lucky winner will be announced March 1, 2024!

Enter to win here: <https://www.realityworks.com/were-celebrating-ctelife-this-cte-month-with-a-giveaway/>



For more information, please contact Realityworks, Inc.
through email at information@realityworks.com
or call toll free at 800.830.1416

