Project/Problem Based Learning Lesson Template

Created By:	Topic: Bridging the Healthcare Community Using technology to bring the best healthcare into our communities	Grade Level or Subject: Health Science Education

Science Standards:

Math Standards:

ELA Standards:

ELA.9-10.L.VAU.6 Acquire and accurately use general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the post-secondary and workforce readiness level.

Computer Science Standards:

CS.IC: 2) Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields.
CS.IC 4) Predict how computational innovations that have revolutionized aspects of our culture might evolve.

CTE (Program of Study) Standards:

Health Science Education: 2.1 Healthcare Delivery Systems: Identify the different types of facilities and options for health care delivery in the United States healthcare delivery system. Compare and contrast the United States healthcare delivery system with those of two other countries that have high efficiency scores in health care as rated by agencies such as the World Health Organization. Identify areas for improvement in the United States and brainstorm possible solutions.

Additional Standards (Social Studies, Art, Physical Education, etc.):

PBL Summary: *Write a few sentences describing this PBL lesson/unit.* Through the use of modern technology, students will collaborate with various members of the healthcare community to research methods of Healthcare Delivery in the United States and beyond. Application of their learning will result in a proposal to improve healthcare delivery in the United States or their own community.	Multi-Dimensional/Driving Question: *Think of a relevant problem with multiple solutions that will drive student learning.* How has healthcare delivery changed in the past decade? What further changes can occur to provide quality healthcare to all individuals? How can computational innovations aid in this improvement?

Tennessee Academic Standards for Science Connection		
Disciplinary Core Idea(s):	Science & Engineering Practice(s):	Cross Cutting Concept(s):

21st Century Skills Addressed (circle all that apply):

Creativity   Collaboration   Critical Thinking   Communication

Culminating Event: *What final student learning products will show student mastery of the content area standards?*
Capstone Presentations of skills can occur during a variety of CTSO Skills Competitions. Presentation specifically for this activity will occur as students share their initial proposal for healthcare delivery improvements as well as their revised proposals on Day 7 that incorporate the importance of computational innovations in the healthcare delivery improvements.

| **Hook / CTSO Competition Event:** *Develop an introductory activity that will spark student interest and further questions.*
Hook: Begin by asking students to answer two questions:
  1) How has healthcare delivery changed in the past decade?
  2) What steps could be taken to improve healthcare delivery within the United States?
  3) What steps could be taken to improve delivery within our region?
Facilitate a discussion around student answers.

CTSO- Activities from this lesson will directly prepare students for the SKILLS USA-HOSA competition | **Industry/Community Partners:** *List potential business or industry partners that could add to the learning experience for students. Include websites or contact info.*

Any members of the Healthcare community with experience in Healthcare delivery in another region or country could be a candidate for this project.
This can include, but not limited to, medical practitioners whose initial licensure came from a different country as well as medical professionals who have served in the military. | *What do you need from these partners (i.e. guest speaker, field trip, help facilitate an activity)?*
 Community partners will be asked to answer questions regarding Healthcare delivery used in different countries or communities. The method of interview can be conducted via digital methods such as Google Meet, Google Doc, Skype, Zoom, ect |

	In order to find individuals with this experience it would be best to contact local Universities or Board of Regents for your area.	

Daily Activities: *What activities will students complete to answer the multi-dimensional/driving question (that reinforces content from the standards)?*
Day 1: Direct Instruction/class discussion of healthcare delivery methods available within your community and within the United States.
    Analyze how these methods have changed over the past decade.
    Compare & contrast the similarities and differences among these options as well as the pros and cons.
    Direction Instruction—Introduction to the World Health Organization (W.H.O) and how healthcare efficiency scores are given.
Day 2: Review of W.H.O. healthcare efficiency scores.
    Students, working either individually or in pairs, will then research at least two other countries with higher efficiency scores to analyze their healthcare delivery methods.
    Students must then synthesize the information to create a set of questions they would use to conduct an interview regarding various healthcare delivery methods.
    Challenge students to think of what information is necessary for them to create a proposal to improve healthcare delivery methods within the United States or within their own community.
    Students will set up a form of digital communication to host their interview/communication with their community partner
Day 3-4: Using the chosen digital medium, students will conduct an interview with a community partner.
    This partner should have some experience with healthcare delivery methods outside of the region, but preferably outside of the United States
    Students will synthesize the information gathered from the interview, W.H.O. research, and class discussion to create a proposal on how to improve healthcare delivery within the United States or within their community.
Day 5: Presentation of Proposals
Day 6: Class discussion surrounding how digital technology made this partnership possible. How has the evolution of technology made it possible to provide better healthcare delivery systems through the collaborative process.
    i.e. How could healthcare delivery be improved by the opportunity of different communities/countries being able to collaborate on delivery methods?
	Resources/Materials Needed:
	*Access to Digital Media for collaboration with community partners
	*Access to W.H.O. data	

Challenge students to consider how healthcare delivery has changed as a result of technology. How could these methods continue to evolve to improve healthcare delivery in the future? Day 7: Proposal Adjustments: Students will make revisions to their proposals to include the usage of computational innovations or suggestions for computational innovations to further support healthcare delivery systems.	

Technology Integration: *How is technology being utilized to support students in creating authentic learning experiences and/or products? How does technology enhance the learning experience?*
The usage of digital technology is what allows students to communicate with their community partners. Students will experience firsthand how technology can be used to bridge the gap between previously unconnected communities.

STEM/STE(A)M Career Connections: *What STEM/STE(A)M careers (within your region) can you connect to this PBL Unit of Study?*
This PBL connects with any healthcare professional within our region as it pertains to methods of healthcare delivery. This activity could expose students to various methods or opportunities for healthcare delivery not previously known.

CTSO Connections: *What Career and Technical Student Organization connection can be made with this PBL Unit of Study?*
Activities from this lesson will directly prepare students for the SKILLS USA-HOSA competition

Capstone Presentation: *How will students present what they've learned publicly?* This can be the culminating event if that event is presenting what has been learned publicly.
Capstone Presentations of skills can occur during a variety of CTSO Skills Competitions. Presentation specifically for this activity will occur through the proposal of adaptations to healthcare delivery in the United States or within the student's community. Students will be required to include how computational innovations have been integral to the improvement of healthcare delivery and how their evolution can continue to support improved healthcare delivery

Industry Certification: *What industry certification opportunity is connected with this particular PBL Unit of Study?*
C.P.R. Industry Certifications are available for students.

Performance Based Rubric

Standards	Developing	On-Target	Mastery
Science	N/A	N/A	N/A
Math	N/A	N/A	N/A
ELA	Students use general language but need support on using domain-specific language correctly when communicating in both oral and written form. Students make more than four errors on domain-specific language when writing interview questions or formal proposal/essay.	Students use general language but need support on using domain-specific language correctly when communicating in both oral and written form. Students make more than two but no more than four errors on domain-specific language when writing interview questions or formal proposal/essay.	Students accurately use general and domain-specific language when communicating in both oral and written form. Students make no more than two errors in domain-specific language when writing interview questions or formal proposal/essay
Computer Science CS.IC: 2) Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. CS.IC 4) Predict how computational innovations that have revolutionized aspects of our culture might evolve.	Students can complete no more than two of the following successfully: Students can effectively navigate digital tools to enhance connectivity and complete their interview with a community partner	Students can successfully complete three of the following: Students can effectively navigate digital tools to enhance connectivity and complete their interview with a community partner	Students who have reached mastery of these standards can successfully complete each of the following: Students can effectively navigate digital tools to enhance connectivity and complete their interview with a community partner.

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	Students can critically analyze the importance of computational innovations and how these innovations have improved healthcare delivery. Students can critically analyze how computational innovations could evolve to improve healthcare delivery systems around the world Students' final proposals include information regarding the use of computational innovations to bridge gaps in healthcare delivery and connect the healthcare community.	Students can critically analyze the importance of computational innovations and how these innovations have improved healthcare delivery. Students can critically analyze how computational innovations could evolve to improve healthcare delivery systems around the world Students' final proposals include information regarding the use of computational innovations to bridge gaps in healthcare delivery and connect the healthcare community.	Students can critically analyze the importance of computational innovations and how these innovations have improved healthcare delivery. Students can critically analyze how computational innovations could evolve to improve healthcare delivery systems around the world Students' final proposals include information regarding the use of computational innovations to bridge gaps in healthcare delivery and connect the healthcare community.
CTE (Program of Study) Health Science Education: 2.1 Healthcare Delivery Systems: Identify the different types of facilities and options for health care delivery in the United States healthcare delivery system. Compare and contrast the United States healthcare delivery system with those of two other countries that have high efficiency scores in health care as rated by agencies	Students can identify different types of facilities and options for Healthcare delivery. Students need support to critically compare and contrast delivery methods of Healthcare in the United States and in other countries.	Students can correctly identify different types of facilities and options for Healthcare delivery. Students can critically compare and contrast delivery methods of Healthcare in the United States and in other countries.	Students can correctly identify different types of facilities and options for Healthcare delivery. Students can critically compare and contrast delivery methods of Healthcare in the United States and in other countries.

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such as the World Health Organization. Identify areas for improvement in the United States and brainstorm possible solutions.	Students' proposal to improve healthcare delivery within the United States or within their community need additional supports and require more detail Students' proposals lack evidence of information gained from their community partnership.	Students created a proposal to improve healthcare delivery within the United States or within their community but need further support to refine their proposals. Students' proposal shows some information gained from their community partnership	Students created a thorough and detailed proposal to improve healthcare delivery within the United States or within their community Students' proposal includes information gained from their community partnership
Additional Standards:	N/A	N/A	N/A

This document is editable and can be customized to best fit your needs.