2021 CTSC adapted for Yonkers Understanding by Design (UbD) Template

CTSC/Yonkers SMART Start 2021-22

School Name: Dodson

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Name of Project: Rising Entrepreneurship Grade: 8 Design Date Start: 11/2/2021

Est. Launch Date: May Duration of Project: 6 weeks Big Idea: Cause & Effect

STAGE 1: DESIRED RESULTS

Enduring Understandings:

- Individuals and groups are impacted by the availability of economic resources.
- Economic and environmental disasters affect the way Americans live, work, and relate to one another, with varying effects based on class, race, and gender.

Essential Question(s):

(MEANT TO BE SHARED WITH STUDENTS)

- How does the economy affect society?
- How do current and historical events impact the economy and environment?
- How do decisions around equity and social impact affect the way businesses run?

Established Goals (Standards, Performance Indicators, Learning Goals

- Explain how economic and environmental decisions affect the well-being of individuals, businesses, and society; evaluate alternative approaches or solutions to economic issues in terms of benefits and costs for different groups of people.
- 2. Explain the roles of buyers and sellers in product, labor, and financial markets.
- 3. Describe the role of competition in the determination of prices and wages in a market economy.
- 4. Explain how government policies affect the economy.
- Students will research how risky investing, protectionism, and overproduction led to the collapse of the stock market, a wave of bank failures, and a long and severe downturn in the economy called the Great Depression.
- Students will examine how the economic practices of the 1920s contributed to the coming of the Great Depression.

STANDARDS

Science Standards:

<u>MS-ESS3-4.</u> Construct an argument supported by evidence for how increases in human population and per capita consumption of natural resources impact Earth's system.

Social Studies Standards:

8.5 GREAT DEPRESSION:

8.5a Students will examine how the economic practices of the 1920s contributed to the coming of the Great Depression.

8.5b Students will examine the effects of the Great Depression on American families in terms of the loss of jobs, wealth, and homes, noting varying effects based on class, race, and gender. Students will explore the conditions in New York City and other communities within New York State during the Great Depression. Students will explore the man-made and environmental conditions that led to the Dust Bowl, the economic as well as cultural consequences of the Dust Bowl, and federal government efforts to address the problem.

8.5c Students will identify key programs adopted under the New Deal, including the creation of the Federal Deposit Insurance Corporation and the Securities and Exchange Commission, and the adoption of the Social Security Act.

Mathematics Standards:

Backward Stages: 1. Identify desired results. 2. Determine acceptable evidence. 3. Plan learning experiences and instruction Adapted from Wiggins & McTighe (2005) Understanding by Design (UbD)

Revised April 2021

Center for Technology and School Change http://ctsc.tc.columbia.edu/

NY-8.G.1: Understand congruence and similarity using physical models, transparencies, or geometry software.

ELA Standards:

CCSS.ELA-LITERACY.CCRA.R.1: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.

NextGen Reading Anchor Standard 6 (Craft and Detail): Assess how point of view or purpose shapes the content and style of a text, drawing on a wide range of global and diverse texts

CCSS.ELA-LITERACY.CCRA.R.7: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words...

CCSS.ELA-LITERACY.CCRA.R.8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

Technology Standards:

- NY State K-12 Computer Science and Digital Fluency Standards
 7-8.DL.2 Communicate and collaborate with others using a variety of digital tools to create and revise a collaborative product. **7-8.DL.4** Select and use digital tools to create, revise, and publish digital artifacts.
- **7-8.DL.5** Transfer knowledge of technology in order to explore new technologies.

International Society of Technology Educators (ISTE) Standards

- 1.4 Innovative Designer: Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
 - 1.4a Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
 - 1.4b Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
 - 1.4c Students develop, test and refine prototypes as part of a cyclical design process
 - 1.4d Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with openended problems.

Social Justice Standards:

Domain: Diversity

Anchor Standard 10: Students will examine diversity in social, cultural, political and historical contexts rather than in ways that are superficial or oversimplified.

Links to Standards/Reference Frameworks:

NGSS, NGSS by DCI Nat'l C3 SS Framework, NYS K-8 SS Standards, Common Core, ISTE, Learning for Justice Social Justice Standards, CASEL SEL Framework, NYS CS and Digital Fluency

Unpacking Standards Verbs

STAGE 2: EVIDENCE & ASSESSMENTS:

Performance Task Narrative

Goal:

Students will research how economic and environmental disasters in the 1930s and today impact daily life for Americans with varying effects for race, class, and gender. Students will create an investment company focused on equity and social impact. They will select stocks that their company will invest in with an imaginary budget of \$100,000. Students will learn how the stock market works and be able to buy, sell and track their stocks. Students will be introduced to key financial literacy components relevant to their lives. At the end of the unit, students will report their earnings to their shareholders (the class).

As students create their own investment company complete with a company name, logo, mission statement, they will design and 3D print a physical prototype that represents their company. This prototype will be used in presentations and any video messaging. Students will also create an investment portfolio for their clients and invest an imaginary $\$100,\!000$ on their behalf.

Commented [CT1]: Where could a public component be incorporated in the presentation? Could students present what they learned to parents or the public around financial literacy? A bilingual presentation? A

Roles: Historian, Researcher, Economist, Financial Analyst, Investor, Investment Banker, Engineer, Designer, Marketing

Classmates, teachers, administrators and parents wanting to understand more about financial decisionmaking and the history in the U.S. behind some of the great financial movements.

As investment professionals and business owners, you will spend time researching the movements and upheavals in the U.S. financial markets such as wars, environmental disasters, COVID, and other international instabilities in order to best understand the basic principles of the stock market and investment decision-making today. You will create an investment company focused on positive social impact through economic and climate justice.

You will work in groups to build your company throughout this unit, including company name, logo, mission statement, and the design of a 3D printed prototype that represents your company. This prototype will be used in presentations, communications, and any video marketing. Each group will also create an investment portfolio for clients that invests (an imaginary) \$100,000 on their behalf.

- Students will create an investment company portfolio including a company name, logo and mission statement.
- Students will create presentations to report their earnings to their shareholders.
- Students will create a dictionary of basic financial literacy terms to be shared with younger
- Students will show, through fabrication modeling and 3D printing, how their logo and/or mission statement can come alive through 3D data visualization in order to support their presentations.

Standards (criteria for success):

- ☐ Students will apply concepts learned in math class as they create their investment portfolios.
- ☐ Students will work in cooperative groups to create an investment company.
- ☐ Students will create a dictionary of basic financial literacy terms for younger students.
- ☐ Make inferences about results- articulate the cause and effect of stocks rising or falling
- ☐ Show evidence real-world connections
- ☐ Students will apply core content areas in order to design, model, prototype, and 3D print components of their businesses such as logos and visual presentations of their businesses.
- ☐ Students will show how strong communication of a business idea includes differentiating for audience types with data, digital presentations, and physical components.

Other Evidence/Assessments:

- Entry/Exit Tickets
- Socratic seminar
- Peer Review
- EdPuzzle.com Traditional unit exam/quizzes
- Rubrics for mission statement, presentations.
- Completion of transaction logs
- Calculations of losses/gains

Learning Activities

Week 1: How do people meet their economic and environmental needs?

Learning Goals: Students will identify how they personally meet their economic and environmental needs, making connections between their personal sphere and the world around them.

Students will create a digital mind map showing how they meet their economic and environmental needs to begin to understand how resources move through systems and the cause and effect relationship of supply and demand.

Formative Assessments:

Student Survey: Microsoft Forms

Linguistic Supports for Multilingual Learners:

- Videos
- Pictures

Modifications for Individual Students and/or Student Groups:

- Translation
- Differentiated Instruction: Scaffolding

Notes/Resources:

Week 2: How do environmental disasters impact people and the economy?

Learning Goals:

- Students will learn how the stock market works.
- Students will learn how to calculate and gains and losses.
- Students will make connections between environmental disasters such as the Dust Bowl, Covid, and Hurricane Sandy and their economic impacts.

Learning Events:

- Intro Song: Money, Money, Money
- Think-Pair-Share: What do you know about the stock market?
- TedEd: The History of the Stock Market
- Guided Practice: Students will learn how to find the ticker symbol and share price for a particular stock.
- Independent Practice: Students will select a company and find the ticker symbol and the share price.
- Cooperative Task: Students will select their teams and create a company name and logo.
- Exit Slip: Glows and Grows
- Research data about economic impacts of selected environmental disasters.

Formative Assessments:

- Conferencing
- Turn and talks

Linguistic Supports for Multilingual Learners:

- Build Prior Knowledge
- Think-Pair-Share
- Sentence Starters
- Allow students to draw/illustrate key concepts

Modifications for Individual Students and/or Student Groups:

- Extra Time
- Differentiate Instruction (Lexile Levels) based on Datamate Assessments

Notes/Resources:

Week 3: How do the decisions people make impact the environment and economy?

Learning Goals:

- SWBAT explain how the stock market works and the basic premise of creating an
 investment portfolio.
- · Students will be able to research how historical events impact the stock market.

Learning Events:

- Gallery Walk
- Spotlight on Women's History Month: Lauren Simmons
- Students will research companies they would like to invest in and select 3 companies to invest in
- Students will record their investments on their log sheet.

Formative Assessments:

- Vocabulary Check
- Planning Pages
- Exit Slips
- Linguistic Supports for Multilingual Learners:
- Background Knowledge
- Scaffolding
- Pictures/Visuals

Modifications for Individual Students and/or Student Groups:

Notes/Resources:

Week 4: How can we create an investment company to address economic and climate justice?

Learning Goals:

- Students will work in cooperative groups to create an investment company complete with company name, logo and mission statement.
- Students will research companies to invest in based on their investment goals (long term v. short term goals).
- Students will define economic and climate justice.
- Students will learn how to track their investments.
- Students will learn how supply and demand impact the prices of stocks.
- Students will work in cooperative groups to research one of the companies they invested in.

Learning Events:

- Gallery Walks
- Formulating an Inquiry Based Question
- Research Skills
- Inquiry Research Questions:
 - How does the war in Russia/Ukraine effect the stock market?
 - How did COVID-19 impact the stock market?
 - What causes stock prices to do up and down?
 - What's the difference between NASDAQ and the NYSE?
- Students will be conducting research online (WebQuest) to explore research questions and
 collect information to share with their peers (opportunity for jigsaw). Students can use this
 information as they create their shareholder presentations.
- Students will create prototypes of their 3D printed designs, using digital tools to create, revise, and publish digital artifacts.

Formative Assessments:

- Vocabulary Check
- Planning Pages
- Exit Slips

Linguistic Supports for Multilingual Learners:

Background Knowledge

- Scaffolding
- Pictures/Visuals

Modifications for Individual Students and/or Student Groups:

Notes/Resources: TinkerCad

Week 5: How do we use our research and digital tools to present and communicate our company's progress?

Learning Goals:

- Students will prepare their findings for their shareholder's meetings.
- Students will present their findings to the class.
- Students will create multimodal presentations to show their results to the class.
- Students will create dictionary of key financial terms to share with third graders.

Learning Events:

- Students will learn how to create multimodal presentations to share their data to the class, using digital tools to create, revise, and publish digital artifacts.
- Students will develop a list of key financial literacy terms to include in their financial dictionary.
- Students will present their findings to the class.

Formative Assessments:

- Vocabulary Check
- Planning Pages
- Exit Slips

Presentation Rubric:

Rubric Criteria:

- apply concepts learned in math class as they create their investment portfolios.
- cooperative group work
- usage basic financial literacy terms and correct application of vocabulary
- articulate the cause and effect of stocks rising or falling
- · evidence real-world connections
- students can identify what choices they made that made their company successful or financially unstable
- how accurately did they complete their transactions, budgeting
- · evidence of financial diversity for resiliency

Peer Assessment

Linguistic Supports for Multilingual Learners:

- Think Aloud
- Think Pair Share
- Key Vocabulary with Pictures
- Build Prior Knowledge

Notes/Resources:

Week 6: How can we integrate feedback to improve our presentations and reflect on our work?

Learning Goals:

Students will integrate peer and teacher feedback to facilitate reflection and revision.

Learning Events: Reflection about how it went for each group what choices were made that lead to success or failure- how they embrace and share out.

Formative Assessments:

- Conferencing
- Turn and talks
- Reflection protocols

Backward Stages: 1. Identify desired results. 2. Determine acceptable evidence. 3. Plan learning experiences and instruction Adapted from Wiggins & McTighe (2005) Understanding by Design (UbD)

 Linguistic Supports for Multilingual Learners Background Knowledge Scaffolding Pictures/Visuals 	
Notes/Resources:	

Link to document with resources for 3D printing with the Makerbot Stitch printer and Tinkercad design cloud software: $\underline{\text{HERE}}$