

JA Be Entrepreneurial Creative Problem Solving

Session Description	Social Studies Standards	Essential Skills	Common Core ELA
<p>Session One: Identifying the Problem</p> <p>Students are oriented to problem/solution thinking practices and introduced to the Design Thinking process of creative problem solving. They explore the first step (Empathize) that teaches them to look at problems as human-centered, from the customer’s perspective.</p> <p>Students will:</p> <ul style="list-style-type: none"> Describe how brainstorming several ideas and then picking the best options will lead to creative problem solving. Describe the Design Thinking model and the steps involved in the process. Describe the advantages of applying the Design Thinking model to new ideas or problem solving. Describe the Empathize step in the Design Thinking model. Demonstrate how an empathy map can be used to identify a user’s needs. 	<p>HS 3.1.a a. Explain the economic way of thinking: The condition of scarcity requires choice and choice has a cost (opportunity cost).</p>	<p>HS 3.1.1 Apply knowledge and skills to analyze how individuals, businesses, governments, and nonprofits deal with the challenges of scarcity. (Civic/Interpersonal Skills: Global/Cultural Awareness)</p>	<p>Grades 9–10 RI.2,4,8 W.4,7 SL.1,2,3,4,6 L.1,2,3,4,6</p> <p>Grades 11–12 RI.2,4,6 SL. 1,2,3,4,6 L.1,2,3,4,6 W 4,7 RH 9-12 2,4, 5,7,9 WhST 4,6,7,9</p>
<p>Session Two: Exploring Solutions</p> <p>Students focus on the second and third steps of the Design Thinking process (Define and Ideate). They summarize the root cause of the issue in a problem statement and then use brainstorming techniques to generate viable ideas as solutions.</p> <p>Students will:</p> <ul style="list-style-type: none"> Describe the Define step in the Design Thinking model. Demonstrate how to write a short, clear problem statement that reflects the problem to be solved. Describe the Ideate step in the Design Thinking model. Apply ideation methods by brainstorming ideas in a fast-paced activity. 	<p>HS 3.1 a. Explain the economic way of thinking: the condition of scarcity requires choice and choice has a cost (opportunity cost).</p>	<p>Disciplinary, Information, and Media Literacy:</p> <ol style="list-style-type: none"> Read for a specific purpose (i.e., detect cause-and- effect relationships, compare and contrast information, identify fact vs. opinion, and author bias). Process or synthesize information through writing using note taking, graphic organizers, summaries, proper sequencing of events, and/or formatting thesis statements that examine why as well as how. Create, interpret, and analyze graphs, charts, and diagrams 	<p>Grades 9–10 RI. 2,4,8 W.4 SL. 1,2,3,4,6 L. 1,2,3,4,6</p> <p>Grades 11–12 RI. 2,4,8 SL. 1,2,3,4,6 L. 1,2,3,4,6 W 4 RH 9-12 1,2,4,5,6,7,9 WhST 1, 4,6,9</p>

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<p>Session Three: Prototyping the Solution</p> <p>Students use rapid prototyping techniques to create an inexpensive model of their solution for customer review and feedback. This process teaches the importance of keeping customers involved in the process without large investments of time or money.</p> <p>Students will:</p> <ul style="list-style-type: none"> Describe the Prototype step in the Design Thinking model. Construct a prototype based on a problem statement and a brainstormed solution to the problem. 	<p>HS 3.1. c. Analyze how factors of production (land, labor, capital) are brought together to produce goods and services in an economic system.</p>	<p>Essential Skills Guidance</p> <p>Engage in novel approaches, moves, directions, ideas and/or perspectives (Creativity/Innovation)</p> <p>HS.1.1.3. Synthesize ideas in original and innovative ways. (Entrepreneurial Skills: Creativity/Innovation)</p> <p>Disciplinary, Information, and Media Literacy:</p> <p>1. Gather relevant information from multiple print and digital sources, and assess the credibility and accuracy of the sources.</p>	<p>Grades 9–10</p> <p>RI.2,4 W. 4 SL.1,2,3,6 L. 1,2,3,4,6</p> <p>Grades 11–12</p> <p>RI.4,8 SL. 1,2,3,6 L. 1,2,3,4,6 W 4 RH 9-12 1,2,4,5,7 WhST 4,6</p>
<p>Session Four: Testing the Solution</p> <p>Students devise testing plans to validate the design and function of their prototyped ideas with customer participants. User testing emphasizes the importance of ongoing improvement cycles in the Design Thinking model.</p> <p>Students will:</p> <ul style="list-style-type: none"> Define the Test step in the Design Thinking model. Develop a testing plan for a given product and target audience. 	<p>HS 3.1. c. Analyze how factors of production (land, labor, capital) are brought together to produce goods and services in an economic system.</p>	<p>Essential Skills Guidance</p> <p>Test hypotheses/prototype with planned process for getting feedback (Inquiry/Analysis)</p> <p>Innovate from failure, connect learning across domains, and recognize new opportunities (Entrepreneurial Skills, Risk Taking)</p> <p>Disciplinary, Information, and Media Literacy:</p> <p>1. Gather relevant information from multiple print and digital sources, and assess the credibility and accuracy of the sources.</p>	<p>Grades 9–10</p> <p>RI. 2,4 W. 2,4,7 SL.1,2,4,6 L. 1,2,3,4,6</p> <p>Grades 11–12</p> <p>RI.4,8 SL. 1,2,3,4,6 L. 1,2,3,4,6 RH 9-12 1,4,5,7 WhST 4,6,7,9</p>

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<p>Session Five: Applying Design Thinking (Optional, Self-Guided)</p> <p>Students complete a cumulative Design Thinking project to demonstrate comprehension and execution of the creative problem-solving process.</p> <p>Students will:</p> <ul style="list-style-type: none"> Use the Design Thinking model to create a solution to an identified problem. Produce an artifact for each step of the Design Thinking process to demonstrate their work. 	<p>HS 3.1. c. Analyze how factors of production (land, labor, capital) are brought together to produce goods and services in an economic system.</p>	<p>Disciplinary, Information, and Media Literacy:</p> <p>4. Process and effectively communicate and present information orally, in writing, and through development of websites, multimedia presentations and other forms of technology.</p>	<p>Grades 9–10 RI.2,4 W. 2,4,7 SL.2,3,4,6 L.1,2,3,4,6</p> <p>Grades 11–12 RI.2,4 SL. 2,3,4,6 L. .1,2,3,4,6</p> <p>RH 9-12 1-9</p> <p>WhST 1.4.6.7.9</p>