

Design Learning Challenge Planner

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Overview | Jobs in the Year 2050

<p>Premise</p>	<p>Employers responding to NACE's Job Outlook 2014 survey rated "ability to work in a team structure," "ability to make decisions and solve problems," "ability to plan, organize, and prioritize work," and "ability to verbally communicate with persons inside and outside the organization" as the most important candidate skills/qualities. These are followed by candidates' "ability to obtain and process information" and "ability to analyze quantitative data."</p> <p>Source: Gray, Kevin and Koncz, Andrea, "The Candidate Skills/Qualities Employers Want." National Association of Colleges and Employers (NACE) Job Outlook Survey. (2013). http://www.nacweb.org/about-us/press/skills-qualities-employers-want.aspx.</p> <p>"...As much as academics go on about the lack of math and science skills, bosses are more concerned with organizational and interpersonal proficiency. The National Association of Colleges and Employers surveyed more than 200 employers about their top 10 priorities in new hires. Overwhelmingly, they want candidates who are team players, problem solvers that can plan, organize and prioritize their work. Technical and computer-related know-how placed much further down the list..."</p> <p>Source: White, Martha., "The Real Reason New College Grads Can't Get Hired" Time Magazine. (Nov. 10, 2013) http://business.time.com/2013/11/10/the-real-reason-new-college-grads-cant-get-hired/</p>
<p>Source of Challenge Inspiration</p>	<p>The source of inspiration began by simply reading a recent help wanted advertisement, which in turn lead to a series of insights into how we might empower young people today to prepare for jobs in the 21st century within an ever-changing global society.</p> <p>Job Applicant Requirements:</p> <ul style="list-style-type: none"> * Self-motivated * Able to multitask * Prepared to meet deadlines * Excellent organizational skills * Operate in a fast-paced environment * Solid decision making skills * Excellent communication skills – both written and oral * Work independently * Highly proficient in Microsoft Office * Able to travel <div data-bbox="982 1029 1412 1827" style="border: 1px solid black; padding: 5px;"> <p>Help Wanted Full-Time</p> <p>Professional assn in the NW suburbs seeks Executive Assistant to support Executive Director (ED) and operations. Candidate must be self-motivated, able to multi task, meet deadlines, have excell'n't org. skills and operate in a fast-paced environment. 6 years admin work and a 2-year accredited Assoc. degree or equiv exp showing progression; Solid decision making skills, excell'n't communication skills both written and oral; able to work independently; highly proficient in Microsoft Office. Travel required. Draft agendas, produces meeting minutes; prepare precise communication; excell'n't proofing skills; sets up leadership meetings; general office mgt; provides customer service to members; general assistance and support to the ED and office; maintain confidentiality. No phone calls respond via email: ExecAsst@cactuaries.org</p> </div>

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Overview con't. Jobs in the Year 2050	
Overarching Challenge Purpose	<p>Using “design” as pedagogy, the overarching purpose of this challenge is to invite high school students to investigate, design, and prepare for jobs of the near and future from multiple perspectives: art, design, humanities, science, technology, engineering, and math.</p> <p>Students will engage in local and global collaborative opportunities to become creative problem solvers. The goal is for students to develop the capacity to actively engage in making sense of large spaces of information as well as discover insightful interconnections and interrelationships of theory and practice within the real world. Learners will be challenged to solve career-based problems using an eco-centered approach from complementary pathways: home, work, learning, health, community, mobility, play, agriculture, or the environment.</p> <p>Using divergent thinking practices, proposed creative and innovative job scenarios will frame purposeful actions that can be taken today—as well as upcycling practices that can assist with reversing previous adverse practices in an effort to stabilize and balance ecosystems of future job markets. Final challenge solutions will take the form of an artistic expression; product, communication, experience, or service design; human-centered design within current, trajectory, or retrospective context(s); physical or natural system design, software system design; structural system design; or mathematical model design.</p>
Desired Impact	<p>The challenge aims to guide high school students as they learn how to think critically, innovatively, and sustainably about not only their own careers, but also about their future community. The desired impact is for all participants to gain a greater understanding of the past and present of their city’s economy in order to create job opportunities that promote the physical, environmental, economic, and community health of the city’s future. It is the hope that this challenge would continue to promote creative methods of discovering new ways to involve youth in shaping the future of communities.</p>
Worldwide Preparations	<p>Just weeks prior to the KCDW event on March 1, a creative network of industry-leading designers, artists and educators will go back to the future as part of a worldwide design challenge hosted by the University of Lincoln, UK on February 11, 12, and 13. Participants will link with luminaries of the design world from across the UK, the USA and China look ahead to 2050, and work together to tackle pressing issues around the education, employability and creativity of the next generation from multiple perspectives including art, design, the humanities, science, technology, engineering and math.</p>

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Challenge Plan Jobs in the Year 2050			
Challenge Title	Jobs in the Year 2050		
Career Perspective	Art Design Humanities Science Technology Engineering Math		
Project Pathway	Home Work Learning Health Community Mobility Play Agriculture Environment		
Form of Design	Expression Product Communications User Experience Service System Model		
Problem Statement	Kansas City high school graduates today need guidance and support as they prepare for careers that have not yet been invented—nor support balanced ecosystems of the future.		
Challenge Brief	<p>By the year 2050, students who graduate from high school in 2015 will be in their early 50's – whereas babies born in 2015 will be 35 years old. The high school students who engage in this challenge will address the learning needs of our next generation of creative problem solvers as well as their own.</p> <p>In preparation for the March 1, 2014 Kansas City Design Week Learning Challenge, 100 high school students in the Kansas City area will collaborate with like-minded local and global students to investigate future eco-centered career opportunities by way of a selected perspective, pathway, and form of design.</p> <p>During the preparatory phase of the design learning process, students will make sense of the interconnections and interrelationships of current job postings within art, design, the humanities, and STEM opportunities by imagining jobs of the future (2050) in respect to today (2014) and the past (1980) – with an emphasis on entrepreneurship.</p> <p>Students will be challenged to propose creative and innovative job scenarios aimed at purposeful actions as they prepare for an entrepreneur-based career in the near future. In addition, learners will engage in meaningful steps towards reversing previous adverse practices resulting in stabilizing balanced ecosystems in the year 2050.</p>		
Critical Question	Imagine the year 2050, how might the study of careers today, future, and past impact high school students as they prepare for college and jobs in the near future by way of entrepreneurship – as well as purposeful contributions to resolve significant problems that have evolved over the past 70 years?		
Criteria Checkpoints	Perspective and Pathway Patterns and Trends Lead to Solving a Common Problem	Plan of Action Informs an Innovative Solution and Viable Entrepreneurship	Solution is Human-Centered and Supports a Balanced and Stabilized Ecosystem
Habits of Mind	High school students will consider their <u>Habits of Mind</u> such as: <u>Inquiring Mind (curious); Empathic Mind (diversity); Flexible Mind (willing to adjust);</u> etc. – as well as those held by related stakeholders		

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Design Learning Process at a Glance | Jobs in the Year 2050

STEP 1 Explore	STEP 2 Describe	STEP 3 Explain	STEP 4 Demonstrate
<p>Sensory Exercise Students engage in a Year 2050 playful learning experience to explore key terms and concepts, along with essential skills</p> <p>PRE-Assessment Facilitator assesses learners' level of understanding of key terms and concepts—followed by guided inquiry and open dialogue (scored, not graded)</p> <p>Problem Statement Teams discover and state real-world problem that is relevant, doable, with accessible resources—aimed to prepare learners for careers not yet invented and support balanced ecosystems of Kansas City's industrial and economic future</p>	<p>Define Challenge Students transpose problem statement into a human-centered design project—intent with purpose, creative, innovation design solution</p> <p>Ask Critical Question Teams craft guiding question embedded in divergent thinking within Job 2050 challenge</p> <p>Sort Habits of Mind Students observe context along with needs and wants of high school students, employers, high school teachers, and college educators</p> <p>Select Perspective Teams narrow project scope via career (art, design, the humanities, science, technology, engineering, math)</p> <p>Select Pathway Students target area of interest (home, work, learning, health, community, mobility, play, agriculture, environment)</p> <p>Consider Upcycling Resource(s) Teams select upcycle resources and materials (reused materials such as: food cans, plastic bags, paper envelopes, clothing, hangers, boxes, etc.)</p> <p>Engage Experts Students prepare initial plan and roadmap, then engage in open dialogue with global design partners to gain greater understandings</p> <p>Check Assumptions Teams consider next steps and adjustments needed to ensure that industry and economy in Kansas City will benefit</p>	<p>Make Sense of Findings, Consider Alternatives Students sort through most important information gathered from open dialogue with global partners via brainstorming "how might we...?" questions -- teams consider alternatives using divergent thinking</p> <p>Identify Criteria, Embed Feedback Loops Students set clear criteria as indicators of success as aligned with embedded checkpoints of design decisions (patterns & trends of jobs today, future, past; entrepreneurship scenarios; balanced future ecosystem solutions)</p> <p>Conduct Formative Assessments Facilitator assesses learners' level of readiness to apply and transfer key concepts and skills (scored, not graded)</p> <p>Create Plan of Action Teams finalize roadmap into plan of action including final form of design, resources, timing, direction of Kansas City desired outcomes, and exhibition materials</p>	<p>Iterate Design Solutions Students join March 1 event at 1pm to collaborate with entrepreneur professionals, teachers, designers and college students -- engage in speed dating, visualizations of top solutions, and develop final design concept prototype</p> <p>Forms of Design Solutions Art: 2D or 3D Expression Design Design : Product, Communication, Experience, or Service Design Humanities: Human-Centered Design within Current, Trajectory, or Retrospective Context Science: Physical or Natural System Design Technology : Software System Design Engineering : Structural System Design Math: Mathematical Model Design</p> <p>Prepare Presentation Teams prepare to deliver a presentation to entrepreneur jury panel -- produce storyboard or 3-minute video</p>

STEP 5 Evaluate		
<p>Final Presentations, Jury Process</p> <ul style="list-style-type: none"> - Teams present to jury panel - Jury process takes place - Students prepare for open dialogue 	<p>Open Dialogue</p> <p>Moderated whole group discussion and makes sense of five prompts:</p> <ul style="list-style-type: none"> - improvements - changes - new questions - next steps - impact 	<p>POST-Assessment, Jury Announcement</p> <ul style="list-style-type: none"> - Students take POST-assessment - Jury panel announce final outcomes

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Explore Lesson Prior to UK Link	Activities
<p>Step 1) Explore Frame problem set worth solving</p> <p>Prepare participants for the challenge with a fun exercise to explore key concepts, important skills, and connections</p>	
<p>Engage in Fun Sensory Exercise</p> <p>1.1 Students kick-off the challenge by experiencing a fun and playful sensory-based exercise – one that invites learners to explore key concepts, vocabulary, and skills</p> <p>PRE-Assessment</p> <p>1.2 Learners take a scored but non-graded PRE-challenge assessment to capture student levels of understanding and depth of knowledge of key concepts</p>	<p>Activity 1</p> <p>Explore Part I – Introductory Exercise (two 45-min sessions)</p> <p>Refer to Sensory Exercise Sheet (80 min)</p> <p>Conduct PRE-Assessment (10 min)</p>
<p>Unpack Key Concepts and Skills</p> <p>1.3 Students discuss, unpack, and make sense of key concepts and skills – as well as connections to prior knowledge and previous experiences</p>	<p>Activity 2</p> <p>Explore Part II – Unpack Concepts and Skills (50 min)</p> <p>Students read "The Candidate Skills/Qualities Employers Want" report and "The Real Reason New College Grads Can't Get Hired" article (20 min) Note: articles can be read and discussed in any format.</p> <p>Vocab: students explore differences in hard and soft skills* (5 min)</p> <p>Video – The Future Will Not Be Multiple Choice (12 min)</p> <p>Class Discussion - What are some of the problems you see based on this information? (10 min) Note: students take notes, teacher collects to serve as reference for next session</p>
<p>Identify the Problem</p> <p>1.4 Learners discover a real-world problem worth solving – one that is relevant, doable within the allotted time, offers accessible resources, and aimed at purposeful contribution(s)</p> <p>State the Problem</p> <p>1.5 Students articulate the problem in the form of a statement – one that is easily understood without explanation</p>	<p>Activity 3</p> <p>Explore Part III – Define the Problem (50 min)</p> <p>Teacher should quickly review class discussion from previous activity—what were some of the main points, conclusions you reached?</p> <p>Students think back to the previous class discussion about the articles and video. What are 2-3 things that you think are most important about the articles, video, discussion? Write them down.</p> <p>Students get into small groups (3-4) and discuss the 2-3 points you came up with. Do you have any similarities among your answers? As a group, decide on the 2-3 most important things/problems you see related to jobs in the future. Collectively, write one problem statement that is easily understood without explanation.</p>
<p>* From Wikipedia: Soft skills are personal attributes that enhance an individual's interactions, job performance and career prospects. Unlike hard skills, which are about a person's skill set and ability to perform a certain type of task or activity, soft skills relate to a person's ability to interact effectively with coworkers and customers and are broadly applicable both in and outside the workplace.</p>	

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Explore | PRE-Assessment Instructions

Here's a sample brainstormed list for the use of a "paper clip"

- Hold papers together
- Cufflinks
- Earrings
- Imitation mini-trombone
- Thing you use to push that emergency restart button on your DVD player
- Keeping headphones from getting tangled up
- Bookmark



This test assesses the level of divergent thinking across four sub-categories

Conduct the assessment, score results, share feedback with students, then invite all students to discuss assessment results as a class. Do students identify trends and/or ideas in which they want to explore further?

A. Fluency How many different uses were identified? Key: number of ideas	B. Originality How uncommon were the ideas? Key: level of unusual ideas	C. Flexibility How many different categories were identified? Key: number of contexts	D. Elaboration How many additional detail items were included? Key: number of details
7	9	4	7
1. Tally the number of uses identified and enter the total Example Scores 7 = Total number of uses	2. On a scale of 1-3 (3 being the highest), score the how typical or unusual each idea is and enter the total Example Scores 0 = Holds papers together 1 = Cufflinks 2 = Earrings 3 = Imitation mini-trombone 1 = Thing you use to push that emergency restart button on your DVD player 2 = Keeping headphones from getting tangled up 0 = Bookmark	3. Tally the number categories (groupings or types) of responses and enter the total Example Scores 1 = Holds papers together and bookmark 1 = Cufflinks and Earrings 1 = Imitation mini-trombone 1 = DVD player and headphones	4. Tally the number of additional details offered in each idea and enter the total Example Scores 1 = Hold papers together 0 = Cufflinks 0 = Earrings 1 = Imitation mini-trombone 3 = Thing you use to push that emergency restart button on your DVD player 2 = Keeping headphones from getting tangled up 0 = Bookmark
TOTAL 27			

Higher scores are indicators of increased creativity

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Explore Sensory Exercise				
<p>Prompt Please close your eyes - imagine life in the year 2050... Now consider how life might be different? How will you make the world be a better place to live, learn, or have fun?.</p>				
Session One	I want to change how we:	Communicate with Friends	Learn at School	Have Fun During Free Time
	<p>1. In three minutes or less, draw a sketch of what your change looks like in the year 2050: Where you are in the world? Who you are with? What you are doing ?</p>		sketch	
	<p>2. Now list the 3 most important steps that must happen to ensure your vision will come true</p>		a.	
			b.	
			c.	
	<p>3. Please form into teams and share your vision – do you recognize patterns (similarities) emerging? Do you notice common interests, emotional connections, purpose, memories, and/or motivations, etc.?</p>			
Session Two	<p>4. As a team – select one common vision in which to focus – followed by brainstorming many ideas of how to make your change happen</p>			
	<p>5. Using a democratic (equitable) approach, select the three most viable solutions</p>		a.	
			b.	
			c.	
	<p>6. Watch all or part of one of the following videos: The Future Will Not Be Multiple Choice: http://youtu.be/wLiEiLug75A Tomorrow's World - Plastic Grass 10 April 1968 – BBC: http://youtu.be/WlaQHRX9X04 Walter Cronkite in the Living Room of 2001: http://youtu.be/ituFqnI0ANo After the Warming: http://youtu.be/RfE8wBRelxw 1993 View of the Future by AT&T: http://youtu.be/NSfqug_Bp1s Tomorrow's World - Office of the Future 16 April 1969 – BBC: http://youtu.be/HnMjoitdRRM Apple Futureshock: http://youtu.be/3WdS4TscWH8 Prediction of the Home Computer: http://youtu.be/EC5sbdvvnvQM Prophetic Student Internet PSA: http://youtu.be/4m4KZHDVWRE Arthur C. Clarke Predicts the Internet: http://youtu.be/OIRZebE8O84</p>			
	<p>7. As a team – analyze the “hello product” ad – consider how you might communicate your vision in the form of a brief message in the year 2050 https://drive.google.com/file/d/0B7dCg1fKL5EaZ3BGQIJDRjhBeG8/edit?usp=sharing</p>			
Session Three	<p>8. Now as a team – create a one page communication piece for each solution, then select the best idea to present to your class</p>			
	<p>9. As a class – share an open dialogue to offer feedback, input, and ideas for possible improvements, along with a discussion about the overall learning experience</p>			

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**it's 2014.
why use a breath spray from 1984?**

introducing hello® breath spray. it's a little capsule of freshness that fits in your pocket and leaves you and your mouth good to go.

hello products are vegan, never tested on animals, bpa-free and made in the friendly usa. say hello to the future.

spray + greet freely.™

hello 
seriously friendly™ oral care
greetfreely.com



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Describe Lesson Prior to UK Link	Activities
<p>Step 2) Describe Develop the Challenge Brief</p> <p>Ask participants to describe what they experienced, ask questions, and share past experiences</p>	
<p>Define the Challenge</p> <p>2.1 Students transpose the problem statement into a human-centered design challenge—with the intent of producing a purposeful, creative, and innovative design solution</p> <p>Ask a Critical Question</p> <p>2.2 Learners pose a well-crafted critical question to guide the design learning process—one that embraces divergent thinking and is anchored in real-world context</p> <p>Sort Habits of Mind</p> <p>2.3 Students observe and study the context, needs, and wants of end users and stakeholders from all perspectives and pathways in the year 2015, 2020, then 1980 – along with the Habits of Mind that directly link to targeted problem set</p>	<p>Activity 1</p> <p>Describe Part I – Define the Challenge (one 50-min session)</p> <p>Teams transpose the initial problem statement into a human-centered challenge with purposeful intent – to produce a creative and innovative design solution</p> <p>Students explore new vocabulary: human-centered, innovation, problem solving, balance ecosystem, etc.</p> <p>Teams brainstorm an initial critical question - a question that will later be linked to criteria that will guide the decision making process</p> <p>Students study the expectations of current job expectations on: www.careerbuilder.com – to identify today’s patterns, trends, then use storytelling to imagine the year 2050, followed by decisions that were made in 1980 (this will offer students a 70 year span in which to understand the problem)</p> <p>Teams document their findings by populating the Stakeholder Habits of Mind Matrix – begin with the present, followed by the future to freely imagine what might be, to then make sense of the impact of past decisions</p>
<p>Select Perspective</p> <p>2.4 Learners choose one perspective in which to design your solution—art, design, the humanities, science, technology, engineering, or math</p> <p>Select Ecosystem Pathway</p> <p>2.5 Students select one pathway to Imagine Life the Year 2050—home, work, learning, health, community, mobility, play, agriculture, or environment</p> <p>Choose Upcycling Resource(s)</p> <p>2.6 Learners consider and select upcycle resources and materials—such as reused materials, food cans, plastic bags, paper envelopes, clothing, etc.</p>	<p>Activity 2</p> <p>Describe Part II – Select Direction (one 50-min session)</p> <p>Each student selects one perspective and one pathway</p> <p>Students then form teams with complementary perspectives and one common pathway (for example an engineer, designer, and technologist who imagine play in the year 2050)</p> <p>With the aim to create a future of balanced and stabilized ecosystem, teams select upcycled resources and materials to correct non-productive decisions that have been made in the past within their pathway</p>

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Describe Lesson Prior to UK Link con't.	Activities
<p>Engage Content Experts</p> <p>2.7 Teams engage in dialogue with content experts—to gain greater understandings of context of the problem sets being challenged</p> <p>Check Assumptions</p> <p>2.8 Learners generate a list of presumptions early in the process – then check resulting assumptions by gathering input and feedback from end users and stakeholders</p>	<p>Activity 3</p> <p>Describe Part III – Confirm Decisions (one 50-min session)</p> <p><u>Teams consider how might their pathway</u> ensure productive problem solving, plan of action leads to innovation, and supports a balanced ecosystem – then build a roadmap to success and identify top three actions as evidence of an innovative solution</p> <p>Students prepare and present their roadmap to global design learning partners, listen carefully as they respond, identify three most valuable ideas or suggestions</p> <p>Teams consider next steps, adjustments, the need for more information or additional input – to ensure that industry and economy in Kansas City will benefit</p>

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Describe Challenge Stakeholder Habits of Mind		
<p>Problem Statement</p> <p>Kansas City high school graduates today are in need of guidance and support as they prepare for careers that have not yet been invented.</p> <p>To ensure your challenge is successful, identify the needs and wants of these stakeholders over a 70 year span.</p>		
<p>High School Graduate 2015</p> <ul style="list-style-type: none"> * * * 	<p>High School Graduate 2050</p> <ul style="list-style-type: none"> * * * 	<p>High School Graduate 1980</p> <ul style="list-style-type: none"> * * *
<p>Employer 2015</p> <ul style="list-style-type: none"> * * * 	<p>Employer 2050</p> <ul style="list-style-type: none"> * * * 	<p>Employer 1980</p> <ul style="list-style-type: none"> * * *
<p>High School Teacher 2015</p> <ul style="list-style-type: none"> * * * 	<p>High School Teacher 2050</p> <ul style="list-style-type: none"> * * * 	<p>High School Teacher 1980</p> <ul style="list-style-type: none"> * * *
<p>College Educator 2015</p> <ul style="list-style-type: none"> * * * 	<p>College Educator 2050</p> <ul style="list-style-type: none"> * * * 	<p>College Educator 1980</p> <ul style="list-style-type: none"> * * *
<p>Challenge Brief</p>	<p>Critical Question</p>	<p>Criteria Checkpoints</p> <ul style="list-style-type: none"> * * *

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Describe Linked Design Learning Experience with Lincoln, UK				
<p>Prompt</p> <p>Now that your problem statement has been framed, critical question identified, habits of mind discovered... Consider your challenge path and possible adjustments as a result of the linked US/UK exchange.</p>				
Part Three - 1	How might we ensure that we...	Integrate our perspectives and pathways to ensure successful problem solving experiences?	Create a plan of action that ensures an innovative solution and viable entrepreneurship?	Propose a solution that is human-centered and supports a balanced and stabilized ecosystem?
	<p>1. Draw a roadmap of the path your challenge has been on and where it is headed:</p> <p>How has your team integrated ideas?</p> <p>How does your plan ensure innovation?</p> <p>How do you embrace entrepreneurship?</p> <p>Is your solution is human-centered?</p> <p>How will you offer a balanced ecosystem?</p>	Roadmap		
	<p>2. Which top three actions have you taken to show evidence that your innovative solution is on track?</p>	a.	b.	c.
	<p>3. Please prepare a brief presentation to share with your global design learning partners.</p> <p>Think about what they need to know in order to provide meaningful input and feedback.</p>			
Part Three - 2	<p>4. As a team – present your challenge and roadmap to global design learning partners – listen carefully as they respond</p>			
	<p>5. As you listen, what are the three most valuable ideas or suggestions they offer?</p>	a.	b.	c.
	<p>6. Now consider your next steps:</p> <p>How might you adjust your actions plans?</p> <p>What new information might you need to move forward?</p> <p>Who else might you need to check in with and/or talk with?</p>			
Part Three - 3	<p>7. As a team – regroup and move ahead with the design learning process – to ensure that industry and the economy of Kansas City will benefit</p>			

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Explain Lesson Prior to March 1	Activities
<p>Step 3) Explain Define Scope, Structure, and Feedback</p> <p>Using the participants' words, introduce new vocabulary, as well as explain key concepts and required skills</p>	
<p><u>Make Sense of Input and Feedback</u></p> <p>3.1 Students make sense of information of greatest importance as gathered from users and stakeholder to then propose relevant findings</p> <p><u>Consider Alternatives</u></p> <p>3.2 Based on initial investigations, learners brainstorm via open-ended "what if?" questions and divergent thinking – then propose multiple purposeful, creative, and innovative design solutions</p>	<p>Activity 1</p> <p>Explain Part I – Make Sense of Feedback and Alternatives (one 50-min session)</p> <p>Teams sort information gained as a result of presenting to global design learning partners in the UK</p> <p>Students ask "how might we ..." questions along with engaging in divergent thoughts to explore multiple approaches to producing a purposeful, creative, and innovation design solution – to ensure that industry and the economy of Kansas City will benefit</p>
<p><u>Identify Criteria</u></p> <p>3.3 Students identify a set of clear criteria (3-4) as indicators of productive purpose, creativity, and innovation to assist with the design decision making process</p> <p><u>Embed Feedback Loops</u></p> <p>3.4 Learners generate ideas for potential embedded checkpoints as formative feedback loops within the design process – to assess progress, impact of design decisions</p>	<p>Activity 2</p> <p>Explain Part II – Identify Criteria and Feedback Loops (one 50-min session)</p> <p>Teams identify 3-4 items to serve as criteria of a successful design solution and checkpoints for decision making</p> <p>Students create an implementation timeline that includes decision making checkpoints to stay on track during the Demonstrate phase of the design learning process</p>
<p><u>Conduct Formative Assessments</u></p> <p>3.5 Students take a scored but non-graded formative assessment of levels of readiness – to apply and transfer key concepts and skills</p> <p><u>Create a Plan of Action</u></p> <p>3.6 Learners transform their roadmap into a plan of action – including final form of design, resources, sequence of key implementation events and activities, and prospective desired outcomes</p>	<p>Activity 3</p> <p>Explain Part III – Formative Assessment and Plan of Action (one 50-min session)</p> <p>Students will take a non-graded formative assessment of levels of readiness prior to Step 4 – Demonstrate</p> <p>Teams transform their roadmap into a plan of action – including final form of design, resources, sequence of key implementation events and activities, Kansas City-centered desired outcomes, and prepare for March 1 exhibition</p>
<p>Design Solution Options</p> <p>Art 2D, 3D Expression; Design Product, Communication, Service; The Humanities User Experience, Retrospective, Projection; Science Physical or Natural System Study; Technology Software System or Service; Engineering Structural System; Math Mathematical Model Study</p>	

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Explain Team Plan of Action Overview			
Name of Team		Career Perspective	
Grade Level(s) Age(s)		Pathway of Interest	
Number of Students		Form of Design Solution	
Team Problem Statement			
Team Challenge Brief			
Team Critical Question			
Upcycling Resources			
Team Criteria Checkpoints			
Key Terms and Concepts	<p>Creativity: Use your imagination to produce original thoughts, solutions, or expressions</p> <p>Divergent Thinking: Explore many ideas vs. one right answer, along with flipping what you would normally think (convergent thinking) into a contrary position to gain unique insights into the problem</p> <p>Innovation: Create novel (new) ideas, methods, or devices that serve a purpose</p> <p>Entrepreneurship: Develop and manage an innovative business venture in a global marketplace</p> <p>Upcycling: The practice of repurposing materials to ensure added value within a new form of use</p>		
Essential Skills	<ul style="list-style-type: none"> * See with eyes and mind * Effectively collaborate * Sort and filter critical information * Engage in thoughtful reflection 		
Evidence of Success	<ul style="list-style-type: none"> * Act on informed decisions * Assess effectiveness, offer improvements, ask new questions, transfer new understandings 		
Standards	<ul style="list-style-type: none"> * Common Core State Standards: English Language Arts 		

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Demonstrate Lesson on March 1	Activities
<p>Step 4) Demonstrate Finalize, Implement Plan of Action</p> <p>Guide participants as they develop and demonstrate new understandings, skills, and connections to real life.</p>	
<p>Finalize Plan of Action</p> <p>4.1 Students review plan of action and adjust as needed to assure the best possible results – then confirm final form of the design solution</p> <p>Iterations of Design, Visualizations</p> <p>4.2 Learners engage in a series of iterative visualizations of prospective top design solutions – apply formative checkpoints, organize and make sense of data collected</p> <p>Adjust, Prototype, Select Design</p> <p>4.3 Students adjust design(s) as needed – select up to 3 concepts to prototype as mock-ups and/or models – apply final checkpoint to then select one design approach</p> <p>Develop Final Design</p> <p>4.4 Learners develop final design based on feedback received at each formative checkpoint along the way – to prepare a story of their learning experiences</p>	<p>Activity 1</p> <p>Demonstrate Part I – Finalize Plan, Visualize, Prototype Final Design (90-min session)</p> <p>Students join the March 1 event at 1pm to collaborate with entrepreneur startup professionals, teachers, professional designers, and college students</p> <p>Initial contact will be with entrepreneurs in a “speed dating” fashion – where teams have 3 minutes to pitch current plans of action and roadmaps (30 min)</p> <p>Students transition into working groups to review and adjust plans based on input, feedback, and checkpoints</p> <ul style="list-style-type: none"> - Next engage in a series of iterative visualizations of top 3 design solutions - Then apply final checkpoints to develop and prototype one final design concept (60 min)
<p>Produce Storyboard</p> <p>4.5 Students produce a storyboard – to tell the story of how their design solution solves the problem in purposeful, creative, and innovative ways</p> <p>Generate Process Book</p> <p>4.6 Learners develop final design based on feedback received at each formative checkpoint along the way – to prepare a story of their learning experiences</p> <p>Prepare 3-Minute Video</p> <p>4.7 Students prepare a 3-minute video – to serve as an overview of innovative design solution and experiences with the design learning process</p> <p>Refine Design, Presentation</p> <p>4.8 Students continue refinements as needed to prepare and present their final design solution</p>	<p>Activity 2</p> <p>Demonstrate Part II – Prepare Presentation (60-min session)</p> <p>Teams prepare and deliver a 6-minute presentation for the panel of entrepreneur jury members</p> <p>Jury members assess purposefulness, creativity, and innovative qualities of design solution for the Year 2050</p> <p>Presentations must include the following:</p> <ul style="list-style-type: none"> - Prototype of Final Design Solution - PowerPoint Storyboard or 3-Minute Video <p>Storyboard or video must include the following elements:</p> <ul style="list-style-type: none"> - Demonstrate how humans will interact with the design - Explain the application of upcycled materials - Qualify the impact on Kansas City industry and economy
<p>Design Solution Options</p> <p>Art 2D, 3D Expression; Design Product, Communication, Service; The Humanities User Experience, Retrospective, Projection; Science Physical or Natural System Study; Technology Software System or Service; Engineering Structural System; Math Mathematical Model Study</p>	

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Evaluate Lesson on March 1	Activities
<p>Step 4) Evaluate Assess Learning, Identify Next Steps</p> <p>Ask participants for feedback. Did they learn the concepts and skills? Ideas for improvements? New questions?</p>	
<p>5.1 Assess Learning Process</p> <p>Students reflect and make sense of their design learning experiences, progress towards learning key skills and concepts, as well as lessons learned</p>	<p>Activity 1</p> <p>Evaluate Part I – Final Presentations, Jury Process (75-min session)</p> <p>Teams present to entrepreneur startup professionals, 6-min presentation per team (60 min)</p> <p>Jury members assess team projects while all others prepare for open dialogue (15-min)</p>
<p>5.2 Consider Improvements</p> <p>Facilitators and learners consider how the evolution of the process could be improved – then identify any necessary changes if the challenge were repeated</p> <p>5.3 Ask New Questions</p> <p>Students contemplate new critical questions that come to mind – then propose hypothetical next steps if they were to continue the project</p>	<p>Activity 2</p> <p>Evaluate Part II – Open Dialogue Moderated by Garfield Gini-Newman (10-min session)</p> <p>Students, entrepreneur startup professionals, teachers, professional designers, and college students join in all group discussion focused on the following prompts:</p> <ul style="list-style-type: none"> - How might this challenge in improved (prep and event)? - What changes in the challenge should be made? - What new questions come to mind as result of today's event? - If your project were to continue, what next steps are needed? - What impact has this challenge experience had on you?
<p>5.4 Conduct POST-Challenge Assessment</p> <p>Students re-take PRE-assessment – serves as a POST-challenge assessment and comparison of initial, midpoint, and end of project understanding and depth of knowledge findings</p> <p>5.5 Apply and Transfer Learning</p> <p>Learners consider how new understandings (knowledge and skills) along with new ways of thinking – might be used in everyday life and/or in other subject areas</p> <p>5.6 Final Evaluation</p> <p>Facilitators and students evaluate projects based on criteria established within the design learning process – this can serve as a summative (graded) assessment</p>	<p>Activity 3</p> <p>Evaluate Part III – Jury Members Announce Results (5-min session)</p> <p>Jury members announce final outcomes</p> <p>Conduct POST-Assessment</p>

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Demonstrate | POST-Assessment Instructions

Developed by Wallas and Kogan's in 1965, this **Creativity Test** asks you to come up with as many possible items that contain a specific component, such as with wheels, round things, or things that make noise.

Here's a sample brainstormed list for items with wheels

- A car racing down the street
- A truck slamming on its breaks to avoid a car
- A waterwheel
- A go cart
- Your mind when you figuring out how to solve a problem



This test assesses the level of divergent thinking across four sub-categories

Conduct the assessment, score results, share feedback with students, then invite all students to discuss class results compared to PRE-Assessment. Do students identify trends and/or ideas in which they want to explore further?

A. Fluency How many different items were identified? Key: number of items	B. Originality How uncommon were the items? Key: level of unusual items	C. Flexibility How many different categories were identified? Key: number of categories	D. Elaboration How many additional detail items were included? Key: number of details
5	4	4	7
1. Tally the number of items identified and enter the total Example Scores 5 = Total number of uses	2. On a scale of 1-3 (3 being the highest), score the how typical or unusual each item is and enter the total Example Scores 0 = A car racing down the street 0 = A truck slamming on its breaks to avoid a car 1 = A waterwheel 0 = A go cart 3 = Your mind when figuring out how to solve a problem	3. Tally the number categories (groupings or types) of responses and enter the total Example Scores 1 = A car racing down the street and truck slamming on its breaks to avoid a car 1 = A waterwheel 1 = A go cart 1 = Your mind when you figuring out how to solve a problem	4. Tally the number of additional details offered with each item and enter the total Example Scores 2 = A car racing down the street 2 = A truck slamming on its breaks to avoid a car 0 = A waterwheel 0 = A go cart 3 = Your mind when figuring out how to solve a problem
TOTAL 20			

Higher scores are indicators of increased creativity

