

2021-2022 Mabry CCC Lesson Plan

CCC Meeting		CCC Norms	CCC Meeting Guide
Subject:	KSU Cellular Biology 3D Design		<ol style="list-style-type: none"> 1. What do we want students to learn? <ul style="list-style-type: none"> • Lesson Plan 2. How do we know if students learned it? <ul style="list-style-type: none"> • Create Common Assessments • Review & Assess Data 3. What do we do when students don't learn it? <ul style="list-style-type: none"> • Discuss Possible Strategies 4. What do we do when students learn it? <ul style="list-style-type: none"> • Celebrate! & Discuss Ideas
Unit:	Cell Biology/3D Design		
Week of:	Dec. 6 th to Dec. 10 th		
Members:	Kacie Mummert Rachel Shively Yizeng Li Craig Brasco Keith Smith		

WHAT DO WE WANT STUDENTS TO LEARN?					
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Learning Targets	Today, I will listen and take notes while college professors teach me. In Order to create an accurate 3D Design of an animal cell	Today, I will listen to Ms. Shively review animals cells, and Mrs. Mummert explain Tinker Cad. In Order to use Tinker Cad and create a 3D object.	Today, I will work with Tinker Cad to create the organelle I have been assigned. In Order to create an animal with my group including all the designated organelles.	Today, I will work with Tinker Cad to create the organelle I have been assigned. In Order to create an animal with my group including all the designated organelles.	Today, I will submit my finished design. In Order for my instructors to send my work to KSU so their Design Studio can 3D Print my groups creation.
Content Standards	VA7.CR.2 Choose from a range of materials and/or methods of traditional and contemporary artistic practices to plan and create works of art. VA7.PR.1 Plan, prepare, and present completed works of art. VA7.CN.3 Utilize a variety of resources to understand how artistic learning extends beyond the walls of the classroom.	VA7.CR.2 Choose from a range of materials and/or methods of traditional and contemporary artistic practices to plan and create works of art. VA7.PR.1 Plan, prepare, and present completed works of art. VA7.CN.3 Utilize a variety of resources to understand how artistic learning	VA7.PR.1 Plan, prepare, and present completed works of art. VA7.CN.3 Utilize a variety of resources to understand how artistic learning extends beyond the walls of the classroom. S7L2. Obtain, evaluate, and communicate information to describe how cell structures, cells, tissues, organs, and organ systems interact to maintain	VA7.PR.1 Plan, prepare, and present completed works of art. VA7.CN.3 Utilize a variety of resources to understand how artistic learning extends beyond the walls of the classroom. S7L2. Obtain, evaluate, and communicate information to describe how cell structures, cells, tissues, organs, and organ systems interact to maintain	

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- a. Develop a model and construct an explanation of how cell structures (specifically the nucleus, cytoplasm, cell membrane, cell wall, chloroplasts, lysosome, and mitochondria) contribute to the function of the cell as a system in obtaining nutrients in order to grow, reproduce, make needed materials, and process waste.

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Opening	Welcome in the theater and introduction of what they are about to encounter.	Review of cell organelles	Review of what occurred on Tuesday and assign what will be done today.	Share what issues you had the day before and how you solved them.	Share what you have learned from doing this project.
Lesson Plan	Gather in the theater to listen to Professors Li, Brasco, and Smith inform us of what cellular biology looks like at the college level, why medical illustrations are important, and how Tinker Cad and ZBrush programs work to develop 3D models.	Ms. Shively will meet Mrs. Mummert's classes in the Instructional Lab to review animal cells and interpret what was said the day before by Professor Li. Then Ms. Mummert will lead her students through video tutorials and individual exploration of Tinker Cad. Ms. Shively's class will review and do the same in the Instructional Lab during her class.	Ms. Shively and Ms. Mummert will take their classes to the Media Center to work on their assigned organelles. The students will be placed in design teams to create a complete animal cell.	Ms. Shively and Ms. Mummert will take their classes to the Media Center to work on their assigned organelles. The students will be placed in design teams to create a complete animal cell.	Students will submit their files to Mrs. Mummert and Ms. Shively so they can send them off to KSU.
Closing	Questions and Answers to what the students heard from the college professors.	Make sure your group submits the assigned organelles to the teacher before you leave class.	Check in with your team and make sure everyone has done their part of the project.	Check in with your team and make sure everyone has done their part of the project.	

WHAT DO WE DO WHEN STUDENTS DON'T LEARN IT?					
Differentiation and Specialized instruction & Strategies	None	Students were given video link for tutorials to watch if they were unsure how to do something in the program.	Students were given video link for tutorials to watch if they were unsure how to do something in the program.	Students were given video link for tutorials to watch if they were unsure how to do something in the program.	

WHAT DO WE DO WHEN STUDENTS DO LEARN IT?					
Differentiation and Specialized instruction & Strategies	None	Students will move on to the next steps and help classmates who are unsure of how to do something in the program.	Students will move on to the next steps and help classmates who are unsure of how to do something in the program	Students will move on to the next steps and help classmates who are unsure of how to do something in the program	

STEAM ELEMENTS					
Engineering Design Process Stage	<input checked="" type="checkbox"/> Ask <input checked="" type="checkbox"/> Imagine <input checked="" type="checkbox"/> Plan <input checked="" type="checkbox"/> Create <input checked="" type="checkbox"/> Improve <input checked="" type="checkbox"/> Share	<input checked="" type="checkbox"/> Ask <input checked="" type="checkbox"/> Imagine <input checked="" type="checkbox"/> Plan <input checked="" type="checkbox"/> Create <input checked="" type="checkbox"/> Improve <input checked="" type="checkbox"/> Share	<input checked="" type="checkbox"/> Ask <input checked="" type="checkbox"/> Imagine <input checked="" type="checkbox"/> Plan <input checked="" type="checkbox"/> Create <input checked="" type="checkbox"/> Improve <input checked="" type="checkbox"/> Share	<input checked="" type="checkbox"/> Ask <input checked="" type="checkbox"/> Imagine <input checked="" type="checkbox"/> Plan <input checked="" type="checkbox"/> Create <input checked="" type="checkbox"/> Improve <input checked="" type="checkbox"/> Share	<input type="checkbox"/> Ask <input type="checkbox"/> Imagine <input type="checkbox"/> Plan <input type="checkbox"/> Create <input type="checkbox"/> Improve <input type="checkbox"/> Share
STEAM Connections (2or More)	<input checked="" type="checkbox"/> Science <input checked="" type="checkbox"/> Technology <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Art <input type="checkbox"/> Math	<input checked="" type="checkbox"/> Science <input checked="" type="checkbox"/> Technology <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Art <input type="checkbox"/> Math	<input checked="" type="checkbox"/> Science <input checked="" type="checkbox"/> Technology <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Art <input type="checkbox"/> Math	<input checked="" type="checkbox"/> Science <input checked="" type="checkbox"/> Technology <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Art <input type="checkbox"/> Math	<input type="checkbox"/> Science <input type="checkbox"/> Technology <input type="checkbox"/> Engineering <input type="checkbox"/> Art <input type="checkbox"/> Math
Cross-Curricular Connections	<input type="checkbox"/> ELA <input checked="" type="checkbox"/> Math <input checked="" type="checkbox"/> Science <input type="checkbox"/> Social Studies <input type="checkbox"/> Foreign Language	<input type="checkbox"/> ELA <input checked="" type="checkbox"/> Math <input checked="" type="checkbox"/> Science <input type="checkbox"/> Social Studies <input type="checkbox"/> Foreign Language	<input type="checkbox"/> ELA <input checked="" type="checkbox"/> Math <input checked="" type="checkbox"/> Science <input type="checkbox"/> Social Studies <input type="checkbox"/> Foreign Language	<input type="checkbox"/> ELA <input checked="" type="checkbox"/> Math <input checked="" type="checkbox"/> Science <input type="checkbox"/> Social Studies <input type="checkbox"/> Foreign Language	<input type="checkbox"/> ELA <input type="checkbox"/> Math <input type="checkbox"/> Science <input type="checkbox"/> Social Studies <input type="checkbox"/> Foreign Language
STEAM/Cross-Curricular Standards	See Above	See Above	See Above	See Above	

<p>STEAM/Cross-Curricular Vocabulary</p>	<p>Science: cell, cell organelles, cell membrane, nucleus, ribosomes, endoplasmic reticulum (smooth and rough), lysosomes, golgi bodies, mitochondria, vacuole, tRNA, DNA, DNA replication</p> <p>Elements of art: line, form, space</p> <p>Principals of design: balance, proportion, unity</p>	<p>Science: cell, cell organelles, cell membrane, nucleus, ribosomes, endoplasmic reticulum (smooth and rough), lysosomes, golgi bodies, mitochondria, vacuole, tRNA, DNA, DNA replication</p> <p>Elements of art: line, form, space</p> <p>Principals of design: balance, proportion, unity</p>	<p>Science: cell, cell organelles, cell membrane, nucleus, ribosomes, endoplasmic reticulum (smooth and rough), lysosomes, golgi bodies, mitochondria, vacuole, tRNA, DNA, DNA replication</p> <p>Elements of art: line, form, space</p> <p>Principals of design: balance, proportion, unity</p>	<p>Science: cell, cell organelles, cell membrane, nucleus, ribosomes, endoplasmic reticulum (smooth and rough), lysosomes, golgi bodies, mitochondria, vacuole, tRNA, DNA, DNA replication</p> <p>Elements of art: line, form, space</p> <p>Principals of design: balance, proportion, unity</p>	
<p>Real-world Connection</p>	<p>Students are using Tinker Cad which can be used in model-making and architectural careers.</p>	<p>Students are working as design teams just as adults do in the real world.</p>	<p>Students are working as design teams just as adults do in the real world.</p>	<p>Students are working as design teams just as adults do in the real world.</p>	
<p>Career Connection</p>	<p>Medical model creator, architecture, sculptor, designers of multiple types</p>	<p>Medical model creator, architecture, sculptor, designers of multiple types</p>	<p>Medical model creator, architecture, sculptor, designers of multiple types</p>	<p>Medical model creator, architecture, sculptor, designers of multiple types</p>	