

STEAM Lab Lesson Plans

Week of November 12-16

8:40-9:10 Morning Duties

9:10-10:10- RtI

11:50-12:20- Lunch

3:40-4:00 Afternoon Duties

Grade Level	Objectives/Learning Targets	Learning Activities and Instructional Strategies	Standards Assessed
2nd (10:10-11:00)	I can design and create a tower that supports a bucket that will hold the most weight.	<p>Students will work in groups of 4 to complete the STEM challenge. Each class will have a winning team that will advance to be selected as a school winner to go to the district STEM challenge.</p> <p><u>Challenge:</u> Design and create a tower that supports a bucket that will hold the most weight.</p> <p><u>Criteria:</u> -Bucket must hang and swing freely from the top of the tower -Bucket must be at least 6 inches above the table -Failure point will be when the bottom of the</p>	K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

		<p>bucket touches the top of the table or pennies fall out of the cup</p> <p><u>Constraints:</u> 8 straws 12 inches string 1 cup 36 inches tape 5 craft sticks Scissors Ruler</p>	
<p>3rd (11:00-11:50)</p>	<p>I can design and create a tower that supports a bucket that will hold the most weight.</p>	<p>Students will work in groups of 4 to complete the STEM challenge. Each class will have a winning team that will advance to be selected as a school winner to go to the district STEM challenge.</p> <p><u>Challenge:</u> Design and create a tower that supports a bucket that will hold the most weight.</p> <p><u>Criteria:</u> -Bucket must hang and swing freely from the top of the tower -Bucket must be at least 6 inches above the table -Failure point will be when the bottom of the bucket touches the top of the table or pennies fall out of the cup</p>	<p>3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.</p>

		<p><u>Constraints:</u> 8 straws 12 inches string 1 cup 36 inches tape 5 craft sticks Scissors Ruler</p>	
<p>4th (12:20-1:10)</p>	<p>I can design and create a tower that supports a bucket that will hold the most weight.</p>	<p>Students will work in groups of 4 to complete the STEM challenge. Each class will have a winning team that will advance to be selected as a school winner to go to the district STEM challenge.</p> <p><u>Challenge:</u> Design and create a tower that supports a bucket that will hold the most weight.</p> <p><u>Criteria:</u> -Bucket must hang and swing freely from the top of the tower -Bucket must be at least 6 inches above the table -Failure point will be when the bottom of the bucket touches the top of the table or pennies fall out of the cup</p> <p><u>Constraints:</u> 8 straws</p>	<p>3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.</p>

		12 inches string 1 cup 36 inches tape 5 craft sticks Scissors Ruler	
K (1:10-2:00)	I can design and create a tower that supports a bucket that will hold the most weight.	Students will work in groups of 4 to complete the STEM challenge. Each class will have a winning team that will advance to be selected as a school winner to go to the district STEM challenge. <u>Challenge:</u> Design and create a tower that supports a bucket that will hold the most weight. <u>Criteria:</u> -Bucket must hang and swing freely from the top of the tower -Bucket must be at least 6 inches above the table -Failure point will be when the bottom of the bucket touches the top of the table or pennies fall out of the cup <u>Constraints:</u> 8 straws 12 inches string 1 cup 36 inches tape	K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

		<p>5 craft sticks Scissors Ruler</p>	
1st (2:00-2:50)	<p>I can design and create a tower that supports a bucket that will hold the most weight.</p>	<p>Students will work in groups of 4 to complete the STEM challenge. Each class will have a winning team that will advance to be selected as a school winner to go to the district STEM challenge.</p> <p><u>Challenge:</u> Design and create a tower that supports a bucket that will hold the most weight.</p> <p><u>Criteria:</u> -Bucket must hang and swing freely from the top of the tower -Bucket must be at least 6 inches above the table -Failure point will be when the bottom of the bucket touches the top of the table or pennies fall out of the cup</p> <p><u>Constraints:</u> 8 straws 12 inches string 1 cup 36 inches tape 5 craft sticks Scissors Ruler</p>	<p>K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p>

5th (2:50-3:40)	I can design and create a tower that supports a bucket that will hold the most weight.	<p>Students will work in groups of 4 to complete the STEM challenge. Each class will have a winning team that will advance to be selected as a school winner to go to the district STEM challenge.</p> <p><u>Challenge:</u> Design and create a tower that supports a bucket that will hold the most weight.</p> <p><u>Criteria:</u> -Bucket must hang and swing freely from the top of the tower -Bucket must be at least 6 inches above the table -Failure point will be when the bottom of the bucket touches the top of the table or pennies fall out of the cup</p> <p><u>Constraints:</u> 8 straws 12 inches string 1 cup 36 inches tape 5 craft sticks Scissors Ruler</p>	3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.