

Bubble Wand

Day	Min	Suggested Learning
1	45	What is design thinking? - review the steps of the design thinking process Design Thinking Coloring Page
2	45	Co-Construction: What do we need to know? Co-Construction slides
3	45	Research Learning Toys as a business Bubble solution Solids, liquids and gases slideshow , this video . Define: Who decides what the bubble wand should look like? Do they all have to look the same? What exactly makes up the bubble wand? <ul style="list-style-type: none"> constraints
4	45	Ideate and Brainstorm <ul style="list-style-type: none"> Sticky note ideas, decide on 1 idea Model student worksheet Students do worksheet
5	45	<ul style="list-style-type: none"> Model and prototype Students begin building their model bubble wand with supplies. Students must show COMPLETED and prototype drawing and bubble wand
6	45	Model and prototype Students share their completed designs Test and Evaluate test out prototype wand and evaluate
7	45	3D printing Research <ul style="list-style-type: none"> What is a 3d printer, How does the 3D printer work? 3d shape review Solids liquids and gasses
8	45	Voting

		<ul style="list-style-type: none"> • What is voting, What is Voting Video • Vote on favorite 3D printed bubble wand design shows students the 3 choices, this ballot
9	45	<ul style="list-style-type: none"> • Evaluate data and 3D Print • Graph votes, Bar graph example • 3d print the winning design
10	45	<p>Publish and Produce</p> <p>Test out the winning bubble wand design, reflect on the journey through the design thinking process.</p>