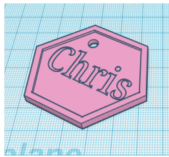
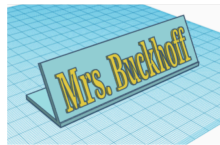
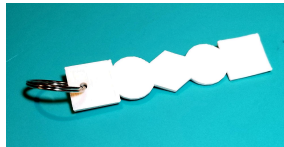
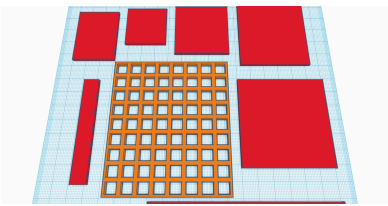
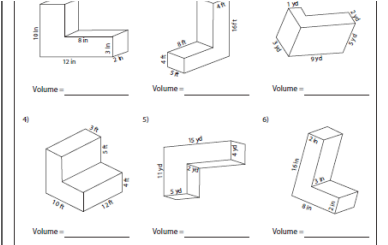
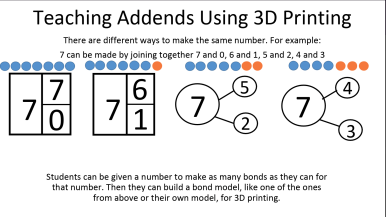
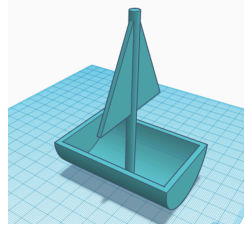
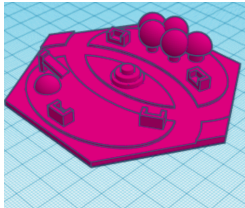
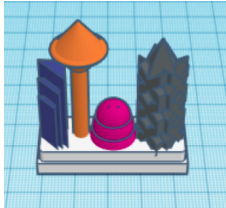
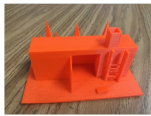


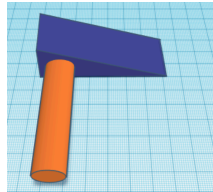
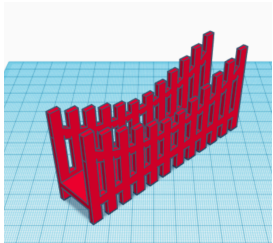
3D Printing Lessons from Moreno Valley USD teachers and beyond

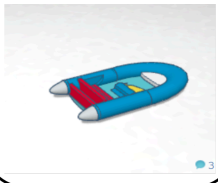
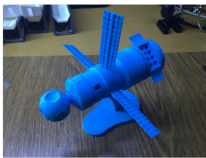
Some links connect you to lessons developed by teachers during Professional Development Trainings others were found on the web and are linked here for reference.

Learn Tinkercad with Starter Projects		
Key Chain 	House 	Desk Sign 
Positive Behavior		
Backpack Tags - Ed Ariza	Students create a design for a SWIFT reward that can be given to students in the student of the month Spirit Assembly.	
College and Career Ready 3rd grade	Design a building from the college you wish to attend	
Science		
Plant and animal Structures K-2	Design a butterfly	
Mathematics		
Number sense and Geometry Kindergarten	Create a 5 shape keychain	

Area & Perimeter of Complex Shapes 4th-5th grade	Create math manipulatives to enhance learning kinesthetically	
Fractions - Melissa Cotant	Fraction Math Manipulatives with 3D Printing	
Geometry - Karina Jones	Studying solids and formulating volume	Aligns with Chapter 11 in Go Math
Volume - Marcie Tamayo	3D Lesson on Volume	
Geometry - Tera Trotter	Recognize and draw shapes having specified attributes	
Addends - Courtney Kane		
3rd grade Multiplication	Students will make small flat math manipulatives, similar to thick cards, to illustrate multiplication facts. These objects will be divided to show the fact being illustrated, for example, 3 units x 7 units, which will have 21 units total. These objects will also illustrate area and arrays. The cards will be one unit thick. Multiple cards with the same multiplication fact, when stacked on top of each other, will illustrate volume. Eventually, we will create boxes that these cards can be stacked into to further illustrate volume of a container.	

Math - surface area, volume, net	Design a useful classroom item. calculate the volume	
Social Studies/Geography		
Early Civilizations	Build a boat within Tinkercad that will serve the needs of their growing civilization	
ELA Community involvement - Matt Story	Design a community park	
Egyptian Cartouche	Use a template to create an Egyptian cartouche using hieroglyphics	
Tic Tac Town - Rebecca Buckhoff	Design a building or mini city to fit in your tic tac container	
Native Tribes - Zach Mercer	Group PBL project to create tools or structures.	Native American Home or Tool 
Ca Missions	Design a 3D printed Mission	
11th grade social studies 20th Century US Changing Womens Roles	Students will create a 3-D printed artifact that symbolizes changing and	

	unchanging status of women for their time period	
8th grade social studies Industrial Revolution Shark Tank	Design a 3D printed artifact or prototype	
8th grade social studies Historical Artifact Museum	Create an Artifact	
Language Arts		
Character Analysis	Design a character using details from a story	Character 
READ 180 Universal: Workshop 3 - What's your story - Dawn Perez	Design an item that represents YOU.	
4th grade Reading Literature	The Great Race - Create a race track	
8th grade ELA Superhero/protagonist project	Create a superhero or villain	
Engineering		
Bridge Engineering - Matt Story	Design a bridge	

Boat Challenge - Matt Story	Design a boat to meet parameters.	Boat 
Space Station - Ricky Stark	3D Space Station Space Station 	
HS Engineering	Modify a machine to improve performance	
Engineering process 10th grade	Design a puzzle cube	

For more resources and lessons, visit bit.ly/TEACH3D.