



PEF Summer, *At Home Edition* – Lesson Plan

Class: 3D Printing	Grade Band: 6th-8th
Teacher: Dr. Brooks	Lesson: Designing a Keychain Level: Beginners
Objectives: This video tutorial will guide students through 3D designing a keychain using Tinkercad. Students will utilize skills such as placing, grouping, and aligning in order to make the keychain.	Materials: CPU Access Website https://www.tinkercad.com/
Process: Students will visit the following website: https://www.tinkercad.com/joinclass/BSIA9ED7VYXE This will allow students to join the Tinkercad PEF Summer 2020 3D printing class. Once students have joined the class they will enter their first name and the first letter of their last name. Students will then click on the "New Design" tab which will take them to the 3D design space. -Students will "place" a box onto workplane. -Students will resize the box to 60cm in length and 5 cm in height. The width will remain 20 cm. -Students will change the radius to 5cm curving the edges. -Student will place TEXT onto the workplane and over the keychain. -Students will type in their initials. -Students will make the text smaller by holding down the SHIFT key and using their finger to drag the text to its appropriate size. -Students will use the "align" tool to center the initials. -Students will "group" them together by using Ctrl G cutting a hole through the keychain. -Students will then "place" a hollow cylinder over the left side of the keychain. -Students will resize the cylinder to its appropriate size. -Students will "align" the cylinder so it is center. -Students will "group" them together cutting a hole for a keychain to fit through.	
Vocabulary: Placing, grouping, and aligning	



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