West Deptford Middle School Curriculum Map
Digital Design - Grade 5

Unit/ Duration	Essential Questions	Content	Skills	Assessment	Standards
Unit 1: Intro to Tinkercad Approx. 5 sessions	• How can a 3D Printer be used to create an entire project or a part to fit in an existing project? • How do I select which 3D design software application is best to design my project?	• Students will be guided through the 3D design process via easy hands-on "Lessons", that teach you the basics of Tinkercad before moving on to more complex modeling techniques.	• Getting Started- Navigation and Menus • Testing your New Navigation Skills • Moving, Rotating, and Scaling Objects • Making and Manipulating Grouped Objects • Using the Align Tools and the Workplane Helper	• "Let's Learn Tinkercad" project • Class Participation • Classwork (completion of individual lessons within project) • Projects/Design Challenges	• **MA.5.CCSS.Math.Content.5.MD.A.1** • **MA.5.CCSS.Math.Content.5.G.A.1** • **MA.5.CCSS.Math.Content.5.G.B.3**

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Unit/ Duration	Essential Questions	Content	Skills	Assessment	Standards
Unit 2: Application of Tinkercad Approx. 10 Sessions	• How can a 3D Printer be used to create an entire project or a part to fit in an existing project? • How do I select which 3D design software application is best to design my project?	• Students will be creating a steamship boat using primitive shapes and features within Tinkercad program • Key Chain In this introductory Project Based Learning activity students will learn how to place shapes on the workplane and arrange so they can be 3D printed.	• Grouping shapes to form new objects • Creating holes or negative space within objects. • Scaling shapes or objects • Moving and Rotating objects	• "Steamboat Ship" project • "Name that Key Chain" project • Class Participation • Classwork (completion of individual lessons within projects) • Projects/Design Challenges	• **MA.5.CCSS.Math.Content.5.MD.A.1** • **MA.5.CCSS.Math.Content.5.G.A.1** • **MA.5.CCSS.Math.Content.5.G.B.3**