

West Deptford Middle School Curriculum Map
Engineering Design - Grade 5

Unit/ Duration	Essential Questions	Content	Skills	Assessment	Standards
<p>Engineering Design</p> <p>Unit 01: Introduction to Structures Technology</p> <p>14 Sessions</p>	<ul style="list-style-type: none"> • How do safety choices I make as an individual affect myself and people around me? • In a world of constant technological change, what skills should I learn? • How does technology extend human abilities? • What is the difference between a stable structural shape and an unstable structural shape? And why? 	<ul style="list-style-type: none"> • Basic principles and terminology of structures technology, including stable shapes, unstable shapes, columns, beams, trusses • Differences between types of forces, compression, tension, and torsion • How to safely choose and use equipment, tools, and materials • Classroom rules and procedures, safety rules • Equipment and supplies • Self assessment process 	<ul style="list-style-type: none"> • Complete a self evaluation of their TLA project. • Follow proper techniques in construction of project as demonstrated by the teacher. • Properly select and use equipment and supplies while building TLA Project. • Use the proper terms while constructing a TLA project. • Work safely when handling/operating tools and equipment. • Proper testing techniques as it relates to testing 	<ul style="list-style-type: none"> • Destructive or non-destructive test of model • Teacher observation. • Grading of technological project through use of rubric. • Classwork / Class Participation • Self-assessment by use of rubric. • Teacher assessment by use of rubric • Measurement of Project 	<p><u>English / Language Arts</u></p> <ul style="list-style-type: none"> • LA.6-8.CCSS.ELA-Literacy.RST.6-8.3 • LA.6-8.CCSS.ELA-Literacy.RST.6-8.4 <p><u>21st Century Life and Careers</u></p> <ul style="list-style-type: none"> • WORK.5-8.9.1.8 • WORK.K-12.9.2.B.a • WORK.K-12.9.2.F.a <p><u>Comprehensive Health and Physical Education</u></p> <ul style="list-style-type: none"> • HE.7-8. • HE.7-8.2.1.8.D.1 • HE.7-8.2.1.8.D.2 • HE.5-6. <p><u>Technology Standards</u></p> <ul style="list-style-type: none"> • TEC.5-8.8.2.8 • TEC.K-12.8.1.A.a • TEC.K-12.8.1.A.b • TEC.K-12.8.1.B.a • TEC.K-12.8.1.B.b • TEC.K-12.8.2.B.b • TEC.K-12.8.2.C.a • TEC.K-12.8.2.C.b

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		<ul style="list-style-type: none">• Techniques in completing a project• Terminology used in project• Testing as it relates to the Design and Problem Solving Loop, i.e. Destructive Testing versus Non-Destructive Testing	of a project in the Design and Problem Solving Loop		
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