

Curriculum Development Timeline

School: Township of Ocean Elementary Schools

Course: Gifted and Talented, Grade 7

Department: Gifted and Talented

Board Approval	Supervisor	Notes
August 2009	Jessica Shaw	Update Standards
August 2013	Christine Picerno	Update Standards
December 2017	Christine Picerno	Update Standards
August 2021	Rich Steckhahn	Revisions



Township of Ocean Pacing Guide			
Week	Marking Period 1	Week	Marking Period 3
1	Project Based Learning: Hands-On Projects	21	Project Based Learning: Hands-On Projects
2	Project Based Learning: Hands-On Projects	22	Project Based Learning: Hands-On Projects
3	Project Based Learning: Hands-On Projects	23	Project Based Learning: Hands-On Projects
4	Project Based Learning: Hands-On Projects	24	Project Based Learning: Hands-On Projects
5	Project Based Learning: Hands-On Projects	25	Project Based Learning: Hands-On Projects
6	Project Based Learning: Hands-On Projects	26	Project Based Learning: Hands-On Projects
7	Project Based Learning: Hands-On Projects	27	Project Based Learning: Hands-On Projects
8	Project Based Learning: Hands-On Projects	28	Project Based Learning: Hands-On Projects
9	Project Based Learning: Hands-On Projects	29	Project Based Learning: Hands-On Projects
10	Project Based Learning: Hands-On Projects	30	Project Based Learning: Hands-On Projects
Week	Marking Period 2	Week	Marking Period 4
11	Project Based Learning: Technology-based	31	Project Based Learning: Technology-based
12	Project Based Learning: Technology-based	32	Project Based Learning: Technology-based
13	Project Based Learning: Technology-based	33	Project Based Learning: Technology-based
14	Project Based Learning: Technology-based	34	Project Based Learning: Technology-based
15	Project Based Learning: Technology-based	35	Project Based Learning: Technology-based
16	Project Based Learning: Technology-based	36	Project Based Learning: Technology-based
17	Project Based Learning: Technology-based	37	Project Based Learning: Technology-based
18	Project Based Learning: Technology-based	38	Project Based Learning: Technology-based
19	Project Based Learning: Technology-based	39	Project Based Learning: Technology-based
20	Project Based Learning: Technology-based	40	Project Based Learning: Technology-based



Time Frame	Semester
Topic	
Project Based Learning Hands-on Projects	
Alignment to Standards	
LA.W.7.2 - Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. LA.W.7.8 - Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. LA.SL.7.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. 6-8.MS-ETS1-1.1.1 - Define a design problem that can be solved through the development of an object, tool, process or system and includes multiple criteria and constraints, including scientific knowledge that may limit possible solutions. 6-8.MS-ETS1-4 - Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. SCI.MS-PS2-2 - Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. TECH.8.1.8.C.CS4 - Contribute to project teams to produce original works or solve problems. TECH.8.1.8.E.CS2 - Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. TECH.8.1.8.F.CS2 - Plan and manage activities to develop a solution or complete a project. TECH.8.2.8.C.CS2 - The application of engineering design. TECH.8.2.8.C.4 - Identify the steps in the design process that would be used to solve a designated problem. TECH.8.2.8.C.5b - Create a technical sketch of a product with materials and measurements labeled. TECH.8.2.8.D.CS1 - Apply the design process. TECH.8.2.8.D.3 - Build a prototype that meets a STEM-based design challenge using science, engineering, and math principles that validate a solution.	
Learning Objectives and Activities	
Students will understand that... • Activities will be based on completion of the student- interest questionnaire. • Mathematics appears in everyday life experiences. • The steps of the engineering process must be completed in order to achieve maximum benefit. • The scientific method must be completed in a specific order with recorded data to	



prove or disprove a hypothesis.

- Personal attributes, behavior, knowledge and skills promote self-awareness, personal responsibility and self-direction.
- Effective communication skills are necessary to convey meaning and understanding to others.
- There are many solutions to a problem and an unsuccessful attempt is not a failure, but a way that does not work correctly.

Activities...

Students will participate in a minimum of two projects from this curricular area in a quarter.

- Project- based learning geared toward student interests;
 - Marble maze
 - Blind marble maze
 - Biomimicry
 - Magnetic levitation
 - Current World issue projects
 - Urban planning
 - Competitions (individual/group)
 - Moving sculptures

Assessments

Formative:

- Observational
- Self-guided goal setting
- Self-assessment

Summative:

- Rubric based (P/F)

Interdisciplinary Connections

Career Readiness, Life Literacies, and Key Skills

Technology Integration

Career Education

- CRP6. Demonstrate creativity and innovation



- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

Time Frame	Semester
Topic	
Project Based Learning Technology-based	
Alignment to Standards	
LA.W.7.8 - Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation. LA.SL.7.5 - Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points. TECH.8.1.8.A.CS2 - Select and use applications effectively and productively TECH.8.1.8.A.1 - Demonstrate knowledge of a real world problem using digital tools. TECH.8.1.8.C.CS4 - Contribute to project teams to produce original works or solve problems. TECH.8.1.8.E.CS2 -Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. TECH.8.2.8.C.CS2 - The application of engineering design. TECH.8.2.8.C.5b - Create a technical sketch of a product with materials and measurements labeled. TECH.8.2.8.D.CS1 - Apply the design process.	
Learning Objectives and Activities	
<i>Students will understand that...</i> • Activities are based on completion of student- interest questionnaire. • Mathematics appears in everyday life experiences. • Using multiple sources in research is needed to confirm accuracy of sources. • Personal attributes, behavior, knowledge and skills promote self-awareness, personal responsibility and self-direction. • Effective communication skills are necessary to convey meaning and understanding to others. • Proper application of technology assists in daily tasks. • Technology is developing at a rapid pace and computing skills are needed to be successful in today's job market. • There are many solutions to a problem and an unsuccessful attempt is not a failure, but a way that does not work correctly. <i>Activities...</i>	



Students will participate in a minimum of two projects from this curricular area in a quarter.

- Weekly warm-up questions
- Project- based learning geared toward student interests;
 - Coding- technical language
 - Tinkercad
 - Competitions(individual/group)
 - Urban planning- Cities- IXL

Assessments

Formative:

- Observational
- Self-guided goal setting
- Self-assessment

Summative:

- Rubric based (P/F)

Interdisciplinary Connections

Career Readiness, Life Literacies, and Key Skills

Technology Integration

Career Education

- CRP6. Demonstrate creativity and innovation
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

Modifications (ELL, Special Education, At-Risk Students, Gifted & Talented, & 504 Plans)

ELL:



- Work toward longer passages as skills in English increase
- Use visuals
- Introduce key vocabulary before lesson
- Teacher models reading aloud daily
- Provide peer tutoring
- Use of Bilingual Dictionary
- Guided notes and/or scaffold outline for written assignments
- Provide students with English Learner leveled readers.

Supports for Students With IEPs:

- Allow extra time to complete assignments or tests
- Guided notes and/or scaffold outline for written assignments
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications

At-Risk Students:

- Guided notes and/or scaffold outline for written assignments
- Introduce key vocabulary before lesson
- Work in a small group
- Lesson taught again using a differentiated approach
- Allow answers to be given orally or dictated
- Use visuals / Anchor Charts
- Leveled texts according to ability

Supports for Students With 504 Plans:

- Follow all the 504 plan modifications
- Text to speech/audio recorded selections
- Amplification system as needed
- Leveled texts according to ability
- Fine motor skill stations embedded in rotation as needed
- Modified or constrained spelling word lists
- Provide anchor charts with high frequency words and phonemic patterns

