DESIGN IT


- STEM Standard of Practice 1: Learn and Apply Rigorous Science, Technology, Engineering and Mathematics Content. A/Demonstrate an understanding of science, technology, engineering and mathematics content (i.e. describe connections between science, technology, engineering and mathematics content and real life)
- STEM Standard of Practice 5: Engage in Logical Reasoning. C/Apply Science technology, engineering and mathematics content to construct creative and innovative ideas (i.e. design models that show innovation and creativity)
- STEM Standard of Practice 6: Collaborate as a STEM team. B/ Share ideas and work effectively with a stem focused multidisciplinary team to achieve a common goal (i.e. Demonstrate perseverance while working with others... to complete a task or common goal)

Maryland State Curriculum: Science, grade 4: 1.D.1

- Standard 1: Skills and Processes. D/ Technology 1/Design constraints: Develop designs and analyze the products: “Does it work?” “Could I make it better?” “Could I have used better materials”

Next Generation Science Standards, grades 3 – 5, Engineering Design, S1-1, S1-2, S1-3

- 3-5-ETS1-1 Define a simple design problem reflecting a need or want that includes specified criteria for success and constraints on materials, time or cost
- 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem
- 3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved

Next Generation Science Standards, grades K-2, Engineering Design, S1-1, S1-2
- K-2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool
- K-2-ETS1-2 Develop a simple sketch, drawing or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem

**KIDS’ MOTORWORKS**

*College, Career, and Civic Life; C3 Framework for the Social Studies*

**Dimension 2: Exchange and Markets**

- D2.Eco.3.K – 2. Describe the skills and knowledge required to produce certain goods and services
- D2.Eco.3 – 5. Identify examples of the variety of resources (human capital, physical capital, and natural resources) that are used to produce goods and services

*Common Core English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects*

**Speaking and Listening Standards 3.1, 4.1**

- Comprehension and Collaboration; Engage effectively in a range of collaborative discussions with diverse partners on grade specific topics and text building on other’ ideas and expressing their own clearly

*Maryland State Curriculum, grade 4: 4.A.3; 6.A.1, 6.E.1*

- Standard 4 Economics. A/ Scarcity and economic decision making. 3/Explain how technological changes have affected production and consumption in Maryland.
- Standard 6 Social Studies Skills and Processes. A/Read to learn and construct meaning about social studies. 1/Use appropriate strategies and opportunities to increase understandings of social studies vocabulary
- Standard 6 Social Studies Skills and Processes. F/Analyze Social Studies Information. 1/Interpret information from primary and secondary sources
KIDS’ CANNERY

College, Career, and Civic Life; C3 Framework for the Social Studies

Dimension 2: Economic Decision Making

- D2.Eco.1.3 – 5. Compare the benefits and costs of individual choices.
- D2. Eco.3.3 – 5. Identify examples of the variety of resources (human capital, physical capital, and natural resources) that are used to produce goods and services.
- D2. Eco.6.3 – 5. Explain the relationship between investment in human capital, productivity, and future incomes.

Dimension 2: Human Population; Spatial Patterns and Movement

- D2. Geo.7.3 – 5. Explain how cultural and environmental characteristics affect the distribution and movement of people, goods and ideas.

Common Core English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects

Speaking and Listening Standards SL.3.1, SL.4.1, SL.5.1

- Comprehension and Collaboration; Engage effectively in a range of collaborative discussions with diverse partners on grade specific topics and text building on other’ ideas and expressing their own clearly.

Maryland State Curriculum: grade 4: 3.C.1; 4.A.1, 4.A.2, 4.A.3; 6.A.1

- Standard 3 Geography. C/Movement of people, goods and ideas. 1/Describe and analyze population growth, migration, and settlement patterns in Maryland and regions of the United States.
- Standard 4 Economics. A/ Scarcity and economic decision making. 1/Explain that people must make choices because resources are limited relative to economic wants for goods and services in Maryland, past and present.
- Standard 4 Economics. A/ Scarcity and economic decision making. 3/Explain how technological changes have affected production and consumption in Maryland.
- Standard 4 Economics. A/ Scarcity and economic decision making. 4/Describe regional economic specialization in Maryland and the ways people live and work.
IN THE NEIGHBORHOOD & CITY BUILDERS

College, Career, and Civic Life; C3 Framework for the Social Studies

Dimension 2; Exchange and Markets

- D2. Eco.3.K – 2. Describe the skills and knowledge required to produce certain goods and services
- D2.Eco.6.K – 2. Explain how people earn income
- D2.Eco.7.K – 2. Describe examples of costs of production

Dimension 2: Human-Environment Interaction

- D2.Geo.4.K - 2. Explain how weather, climate, and other environmental characteristics affect people’s lives in a place or region

Dimension 2: Human Population; Spatial Patterns and Movement

- D2. Geo. 9. K– 2. Describe the connections between the physical environment of a place and the economic activities found there

Common Core English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects

Speaking and Listening Standards SL.K.1, SL.1.1, SL.2.1

- Comprehension and Collaboration; Participate in collaborative conversations with diverse partners on grade appropriate topics and texts with peers and adults in small and larger groups.

INSIDE THE GAME STUDIO

Common Core State Standards for English Language Arts, Grades 3 – 5

- Writing 4; Production and Distribution of Writing: With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose and audience
- Speaking and Listening 1; Comprehension and Collaboration: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners building on others’ ideas and expressing their own clearly.
LIGHTS ON!

*Next Generation Science Standards, grade 1, Engineering Design*

- 1-PS4-2: Make observations to construct an evidence-based account that objects can be seen only when illuminated.
- 1-PS4-3: Plan and conduct an investigation to determine the effect of placing objects with different materials in the path of a beam of light.
- 1-PS4-4: Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating

HISTORY ALIVE TOUR

This experience can be adapted for all grade levels, 2nd – 12th. The tour explores themes related to Baltimore’s industrial history and economic past.

*Common Core English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects*

Speaking and Listening Standards SL.3.1, SL.4.1, SL.5.1

- Comprehension and Collaboration; Engage effectively in a range of collaborative discussions with diverse partners on grade specific topics and text building on other’ ideas and expressing their own clearly