Arlington Public School Science Curriculum Maps
Course/Class: Technology & Engineering
Grade(s): 6th

Vision of the Student as Learner skills:

Arlington Public School students will:

- work independently and collaboratively
- observe, analyze and synthesize information from a variety of sources to enhance existing understandings and construct new knowledge
- demonstrate perseverance by using repeated reasoning and inquiry
- participate in rigorous, focused discourse
- develop and defend arguments based on evidence and respectfully consider different perspectives
- create and critique original work

Vision of the Student as Global Citizen skills:

Arlington Public School students will:

- speak with and listen to others in a manner that is respectful of multiple perspectives
- cultivate and maintain healthy and rewarding relationships with diverse individuals and groups
- develop self-awareness and self-understanding
- think critically and reflect upon choices and their impact on others
- participate as a consumer of and contributor to the cultural and civic life of local and global communities

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UNIT: Simple Machines and Materials

LESSON(S): Simple machine introduction, Materials

Essential Questions:

- How do simple machines work together to perform a task?
- How do the properties of materials impact design and construction of projects?

Frameworks Standards:

6.MS-ETS2-1(MA). Analyze and compare properties of metals, plastics, wood, and ceramics, including flexibility, ductility, hardness, thermal conductivity, electrical conductivity, and melting point.

6.MS-ETS2-2(MA). Given a design task, select appropriate materials based on specific properties needed in the construction of a solution.*

Learner Outcomes (Knowledge):

Students will:

- Choose the appropriate material for specific construction projects

Instructional Strategies:

- Direct instruction
- Project Based Learning
- Formative assessment

Assessment Practices: Worksheets, notes, hands-on activities

Resources:

- Massachusetts Curriculum Frameworks 2016 - Science and Technology/Engineering
- YouTube
- Hands-on activities
- Brainpop
- PBS