Michigan Alternate Content Standards - Science

Engineering, Technology, & Applications of Science: Grades 9-12

Engineering Design

1 **Use evidence to describe major global challenges for which humans need or want solutions.** EE.HS-ETS1-1

- H Use evidence to describe major global challenges for which humans need or want solutions. EE.HS-ETS1-H.1
- M Given evidence about a common challenge, identify one or more effect(s) to "people or the environment if solutions are not developed." EE.HS-ETS1-M.1
- L Given a common familiar challenge, identify who/what is most impacted (hurt by it). EE.HS-ETS1-L.1

2 **During a class investigation of a complex real- world problem, identify a sub-problem and a potential solution that uses engineering.** EE.HS-ETS1-2

- H During a class investigation of a complex real- "world problem, identify a sub-problem and a potential solution that uses engineering." EE.HS-ETS1-H.2
- M During a class investigation of a common, familiar "problem limited to the student's local community or within the state of Michigan, identify a smaller" problem that is related to a larger problem. EE.HS-ETS1-M.2
- L During a class investigation of a common, familiar "problem related to the student's direct experience (such as within the classroom, school, family, or" community), identify a smaller problem that is related to a larger problem. EE.HS-ETS1-L.2

3 **When participating in a group investigation of solutions to a real-world problem, use two factors or criteria (such as cost, safety, reliability, and/or aesthetics) to recommend which of three solutions is best given the factors/criteria.** EE.HS-ETS1-3

- H When participating in a group investigation of solutions to a real- "world problem, use two factors or criteria (such as cost, safety, reliability, and/or aesthetics) to" recommend which of three solutions is best given the factors/criteria. EE.HS-ETS1-H.3
- M Given two or more solutions to a common, familiar problem, identify which "solution best meets a specific criteria or constraint." EE.HS-ETS1-M.3
- L Given a possible solution and a non-solution, identify a possible solution to a common, familiar problem. EE.HS-ETS1-L.3