

# 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

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### **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

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### **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