

Connecting “The Fish Weir Engineering Challenge” to the standards

Other Next Generation Science Standards connections (NGSS Lead States 2013):

MS-LS1-4. Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

MS-ESS3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth’s systems.

Connections to the Common Core State Standards (NGAC and CCSSO 2010):

CCSS-Mathematics. Grade 4. Measurement and Data. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

CCSS-Mathematics. Grade 5. Measurement and Data. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

CCSS-Mathematics. Grade 6. Ratios and proportional relationships. Understand ratio concepts use ratio reasoning to solve problems.

CCSS-Writing. Grade 4. Research to build and present knowledge.

CCSS-Writing. Grade 5. Research to build and present knowledge.

CCSS-Writing. Grade 6. Research to build and present knowledge.

References

National Governors Association Center for Best Practices and Council of Chief State School Officers (NGAC and CCSSO). 2010. *Common core state standards*. Washington, DC: NGAC and CCSSO.

NGSS Lead States. 2013. *Next Generation Science Standards: For states, by states*. Washington, DC: National Academies Press. www.nextgenscience.org/next-generation-science-standards.