

MS-ESS3-3 Earth and Human Activity

California Alternate Assessment for Science—Item Content Specifications

# MS-ESS3-3 Earth and Human Activity

| California Science Connector | Focal Knowledge, Skills, and Abilities | Essential Understanding |
| --- | --- | --- |
| Use data from an existing design solution for minimizing a human impact on the environment to identify limitations of the use of technologies employed by the solution. | 1. Ability to use data from an existing design solution for minimizing a human impact on the environment to identify limitations of the use of technologies employed by the solution. | Identify a way humans can minimize their impact on the environment. |

## **CA NGSS Performance Expectation**

Students who demonstrate understanding can:

**Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.** [Clarification Statement: Examples of the design process include examining human environmental impacts, assessing the kinds of solutions that are feasible, and designing and evaluating solutions that could reduce that impact. Examples of human impacts can include water usage (such as the withdrawal of water from streams and aquifers or the construction of dams and levees), land usage (such as urban development, agriculture, or the removal of wetlands), and pollution (such as of the air, water, or land).]

## Mastery Statements

Students will be able to:

* Identify ways people can help the environment
* Identify ways people can mitigate harm to the environment
* Recognize the limitations of a solution which minimizes harm to the environment
* Use data to determine which technology provides the best solution to an environmental problem

## Environmental Principles and Concepts

Principle 1—The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.

Principle 2—The long-term functioning and health of terrestrial, freshwater, coastal, and marine ecosystems are influenced by their relationships with human societies.

## Possible Phenomena or Contexts

*Note that the list in this section is not exhaustive or prescriptive.*

**Possible contexts include the following:**

* Building in undeveloped areas
* Conserving or wasting water
* Farming or gardening practices
* How land is used
* Deforestation
* Pollution
* Reuse and recycling of materials

## Additional Assessment Boundaries

* None listed at this time

## Additional References

California Science Test Item Specification for MS-ESS3-3

<https://www.cde.ca.gov/ta/tg/ca/documents/itemspecs-ms-ess3-3.docx>

Environmental Principles and Concepts <http://californiaeei.org/abouteei/epc/>

The *2016 Science Framework for California Public Schools Kindergarten through Grade Twelve* <https://www.cde.ca.gov/ci/sc/cf/cascienceframework2016.asp>

Appendix 1: Progression of the Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts in Kindergarten through Grade Twelve

<https://www.cde.ca.gov/ci/sc/cf/documents/scifwappendix1.pdf>

Appendix 2: Connections to Environmental Principles and Concepts

<https://www.cde.ca.gov/ci/sc/cf/documents/scifwappendix2.pdf>

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