

3-LS3-1 Heredity: Inheritance and Variation of Traits

California Alternate Assessment for Science—Item Content Specifications

# 3-LS3-1 Heredity: Inheritance and Variation of Traits

| California Science Connector | Focal Knowledge, Skills, and Abilities | Essential Understanding |
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| Based on data through observation, identify similarities in the traits of a parent and the traits of an offspring and variations in similar traits in a grouping of similar organisms.  | 1. Ability to identify similarities in the traits of a parent and the traits of an offspring (e.g., tall plants typically have tall offspring).
 | Identify variations in similar traits in a grouping of similar organisms (e.g., dogs come in many shapes and sizes, siblings look alike and different).  |

## CA NGSS Performance Expectation

Students who demonstrate understanding can:

**Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.** [Clarification Statement: Patterns are the similarities and differences in traits shared between offspring and their parents, or among siblings. Emphasis is on organisms other than humans.] *[Assessment Boundary*: *Assessment does not include genetic mechanisms of inheritance and prediction of traits. Assessment is limited to non-human examples.]*

## Mastery Statements

Students will be able to:

* Identify probable offspring from two parents based on physical traits
* Identify the two parents of an offspring based on physical traits
* Select a physical trait that is similar between an offspring and its parents
* Identify an animal that has a trait different from that of a sibling

## Possible Phenomena or Contexts

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

**Possible contexts include the following:**

* Offspring may have obvious traits from both parents.
* Siblings may not look like one another.
* Individuals of the same species may look different from one another.

## Additional Assessment Boundaries

* None listed at this time

## Additional References

California Science Test Item Specification for 3-LS3-1

<https://www.cde.ca.gov/ta/tg/ca/documents/itemspecs-3-ls3-1.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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