



Grade 1

3.1.1.C Life Science: Heredity: Inheritance and Variation of Traits

Students who demonstrate understanding can *make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.*

Clarifying Statement: Examples of patterns could include features plants or animals share. Examples of observations could include leaves from the same kind of plant are the same shape but can differ in size; and, a particular breed of dog looks like its parents but is not exactly the same.

Assessment Boundary: Assessment does not include inheritance or animals that undergo metamorphosis or hybrids.

Science and Engineering Practices (SEP)	Disciplinary Core Ideas (DCI)	Crosscutting Concepts (CCC)
Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. <ul style="list-style-type: none"> Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. 	Inheritance of Traits <ul style="list-style-type: none"> Young animals are very much, but not exactly like, their parents. Plants also are very much, but not exactly, like their parents. Variation of Traits <ul style="list-style-type: none"> Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. 	Patterns <ul style="list-style-type: none"> Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.

Pennsylvania Context: Examples of Pennsylvania context include examples of native Pennsylvania animals and plants.

PA Career Ready Skills: Demonstrate respect for the uniqueness of others.

Connections to Other Standards Content and Practices

Standard Source	Possible Connections to Other Standard(s) or Practice(s)
Agriculture (AFNR)	CS.02.02.01.a: Identify and summarize the components within AFNR systems (e.g., Animal Systems: health, nutrition, genetics, etc.; Natural Resources Systems: soil, water, etc.).
Science, Environmental Literacy and Sustainability (NAAEE)	K-4 Strand 1.E. Organizing and analyzing information: Learners describe data and organize information to search for relationships and patterns concerning the environment and environmental topics.
PA Core Standards: ELA	CC.1.4.1.V: Participate in individual or shared research and writing projects. CC.1.4.1.W: With guidance and support, recall information from experiences or gather information from provided sources to answer a question.



Standard Source	Possible Connections to Other Standard(s) or Practice(s)
PA Core Standards and Practices: Math	MP.5: Use appropriate tools strategically. CC.2.4.1.A.1: Order lengths and measure them both indirectly and by repeating length units.
PA Standards: Social Studies	8.3.1.C: Identify examples of change.
Educational Technology (ISTE)	1.3. Knowledge Constructor: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.
Technology and Engineering (ITEEA)	STEL-3A: Apply concepts and skills from technology and engineering activities that reinforce concepts and skills across multiple content areas.