

3-D Science Concept Organizer – Kindergarten Heredity Example

Phenomena or anchoring event:

- Who's My Daddy? photo display for students to select the correct pair of offspring and parents. (see last page of example)
- This can also be introduced with a picture book or story such as "Are you my Mother?" by P.D. Eastman

Big Idea(s): Genetic information is passed down from one generation of organisms to another.

- Living things produce offspring that are similar but not identical to each other or their parents.

Strand: 4 Concepts: C2 (connects to C1 and C3)**Arizona Performance Objectives:****S4C2: Life Cycles**

PO 1. Describe that most plants and animals will grow to physically resemble their parents.

S4C3: Organisms and Environments

PO 1. Identify some plants and animals that exist in the local environment

S4C1: Characteristics of Organisms

PO 2. Name the following human body parts:

- | | |
|-------------|----------|
| • head | • legs |
| • shoulders | • hips |
| • arms | • knees |
| • elbows | • ankles |
| • wrists | • feet |
| • hands | • heels |
| • fingers | • toes |

Grade Band Endpoints from Disciplinary Core Ideas Learning Progression**LS3: Heredity: Inheritance and Variation of Traits**

- Organisms have characteristics that can be similar or different. Young animals are very much, but not exactly, like their parents and also resemble other animals of the same kind. Plants also are very much, but not exactly, like their parents and resemble other plants of the same kind.
- Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.

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Strand 1 – Inquiry Process Arizona Performance Objectives: S1C1: Observations, Questions, and Hypotheses PO 1. Observe common objects using multiple senses. PO 2. Ask questions based on experiences with objects, organisms, and events in the environment. S1C3: Analysis and Conclusions PO 1. Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics S1C4: Communication PO 1. Communicate observations with pictographs, pictures, models, and/or words. PO 2. Communicate with other groups to describe the results of an investigation.	Grade Band Endpoints from Science and Engineering Practices Learning Progressions Asking Questions and Defining Problems <ul style="list-style-type: none">Ask questions based on observations to find more information about the natural world. Constructing Explanations and Designing Solutions <ul style="list-style-type: none">Make observations (first hand or from media) to construct an evidence-based account for natural phenomena.
Unifying Concepts: Systems, Order, and Organization	Grade Band Endpoints from Crosscutting Concepts Learning Progressions Patterns <ul style="list-style-type: none">Students recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.

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Connections	
Strand 2: History and Nature of Science None applicable to this unit	
Strand 3: Science in Personal and Social Perspective None applicable to this unit	
Other Arizona Content Standards: K.RI.2 With prompting and support, identify the main topic and retell key details of a text. K.RI.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	

References	
Prerequisites or Co-requisite Performance Objectives (Background Knowledge)	Based on school or district curriculum: how the objectives are bundled, and the sequence objectives are taught.
Materials and Resources	School or district determined
Assessments	School or district determined

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