THE SCHOOL DISTRICT OF PHILADELPHIA

**8th Grade Science: March 30-April 17**

**Resource Used:** HMH Science Dimensions: Module D, The Diversity of Living Things

**Topics:**
Unit 1 The History of Life on Earth; Lesson 3: Evidence of Common Ancestry
Unit 2, Evolution; Lesson 1: Genetic Changes and Traits

**What Your Student is Learning:**
In Unit 1, Lesson 3, students identify patterns of similarities in the anatomy and embryological development across species. They analyze these patterns to infer evolutionary relationships among modern and extinct species and to construct scientific explanations about common ancestry.

In Unit 2, Lesson 1, students use models to understand how information in genes is used to code for specific traits that determine traits. They investigate how mutations in DNA can lead to changes in structure and function of proteins. Students develop an understanding that gene mutations are a source of variation in traits and some variations of traits can provide a survival advantage for organisms in specific environments.

**Background and Context:**

Students should read the text, discuss the ideas with you or a classmate by phone, text, or email, and answer the questions in a notebook.
Click here to access the 8th Grade History of Life on Earth Learning Packet.
Click here to access the 8th Grade Evolution Learning Packet

In 8th grade, students should engage in science each day for 45 minutes or every other day for 90 minutes. Below is a suggestion for how you might want to break up the work, but if you haven't started yet, just start with the first week and go forward from there!

- Week of March 16th: Unit 1: The History of Life on Earth, Lesson 1
- Week of March 23rd: Unit 1: The History of Life on Earth, Lesson 2
- **Week of March 30th: Unit 1: The History of Life on Earth, Lesson 3: Evidence of Common Ancestry**
- **Week of April 13: Unit 2: Evolution, Lesson 1: Genetic Changes and Traits**

**Ways to Support Your Student:**

Encourage your students to talk or write about their ideas before, during, and after completing the activities. Tell them not to worry about being wrong or not knowing; science is about revising ideas over time based on new information. Students might call or video chat their classmates to discuss these ideas together as well. They should encourage each other to use evidence from the text to support their ideas.

**Additional Resource for Parents:**
Answer keys are available for:

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Unit 1 Lesson 3 Self-Check (Unit 1 packet, pages 63-65)
Unit 1 Review (Unit 1 packet, pages 67-70)
Unit 2, Lesson 1 Self-Check (Unit 2 packet, pages 91-93)

Click here to access the answer keys for Unit 1, History of Life on Earth
Click here to access the answer keys for Unit 2, Evolution

Tips for Busy Parents who want to support their childrens' science learning

**Online Resources for Students:** These web resources provide other ways to engage with content, with short engaging videos, simulations, articles, and questions.

For Unit 1, Lesson 3: CK-12: Evolution Evidence

For Unit 2, Lesson 1: CK-12: Mutations and Natural Selection