GIPS 1st Grade Science Design Map

Units (in sequence)	**Estimated Time Frame** (sessions)	**K-12 Program Strands With Corresponding Course/Grade Level Standards**	**K-12 Program Enduring Understandings (for content only)**	**K-12 Program Essential Questions (for content only)**	**Unit Assessments** (note if optional)	**C/GL Key Vocabulary Concepts**
Unit 1 **Pebbles, Sand, & Silt**	24 sessions	**Physical Science:** **2.1 Chemical & Physical Properties of Matter** Observe, describe, and sort earth materials based on properties (Inv. 1,2) Explore places where earth materials are found and ways that earth materials are used (Inv. 3) **Earth Science:** **4.1 Structure, History, & Cycles** Explore places where earth materials are found and ways that earth materials are used (Inv. 2,3)	All matter is made up of relatively few kinds of basic materials combined in various ways. The way matter can be separated determines what type of matter it is. Materials within the Earth system have physical/.chemical properties that make them useful in different ways. **See strand one for full text.**	How do scientists describe things? What do they learn from the comparisons? How do the properties of an object determine its use? What are the parts of this system? How do they work together?	FOSS End-of-Module Assessment: Performance & Structured Response (Written)	particle earth material property separate mixture construct nutrients texture classifying
Unit 2 **Solids & Liquids**	21 sessions	**Physical Science:** **2.1 Chemical & Physical Properties of Matter** Observe, describe, and sort solids and liquids based on properties (Inv. 1,2,3,4) Recognize and describe differences between solids and liquids (Inv. 1,2,3,4) Conduct an investigation on an unknown material and identify its properties (Inv. 1,2,3,4)	All matter is made up of relatively few kinds of basic materials combined in various ways. When two or more substances interact to form new substances, the properties of the new combinations may be very different from those of the old. **See strand one for full text.**	How do scientists describe things? What do they learn from the comparisons?	FOSS End-of-Module Assessment: Performance & Structured Response (Written)	solid liquid dissolve change

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Unit 3 **Plants (optional)**	29 sessions (It takes several science classes to plant the various seeds. This is followed by observations and conversations about what students are noticing and learning about the various plants.)	**Life Science:** **3.1 Diversity of life** Observe and describe the changes that occur as plants grow and develop (Inv. 1,2,3,4) Identify plant structures and their functions (Inv. 1,2,3,4) **Life Science:** **3.2 Classification** Record observations of plants using the techniques of drawing and writing (Inv. 1,2,3,4) **Life Science:** **3.3 Ecosystems** Identify a variety of ways to begin new plants (Inv. 1,2,3,4) **Life Science:** **3.4 Genetics** List the needs of plants to germinate and grow (Inv. 1,2,3,4)	Living things have certain structures that serve necessary functions for growth, response to stimulus, reproduction and use of energy. The level of classification systems is an ongoing effort within the science community so that there are meaningful ways to study groups. Organisms can survive only in environments in which their needs can be met. The change one organism makes in order to adapt/survive has significant ripple effects. All living things go through predictable phases of life or maturity. Environment has the power to shape/change how an organism responds/functions in it's surroundings. **See strand one for full text.**	What does it mean to be alive? What are living things made of? Why and how do scientists classify living things? How do organisms change, survive, and adapt to their environments? How do living things interact with each other? What are the life cycles of living things? Where do living things get their traits?	FOSS End-of-Module Assessment: (Optional) Structured Response (Written)	nutrients change germination life cycle