**Unifying Concept:** Evidence, Models, and Explanation; Constancy, Change, and Measurement; Form and Function

**Big Idea:** All organisms have life cycles. Organisms have specific structures that enable them to survive in their environment.

**Sub Concept I:** Brine shrimp hatch from eggs.

**Sub Concept II:** Brine shrimp have unique physical characteristics.

**Sub Concept III:** Brine shrimp need air, water, salt, light, and food (variables). Changing a variable may affect the brine shrimp.

**Description of Assessment:** Teacher observation, oral presentation of group experiment (L12), suggested formative quick writes, pre- and post-unit writing, review of student work (e.g. Science Notebook)

**Science Process Skills:** Observing, Questioning, Comparing, Communicating, Predicting, and Interpreting

**National Science Standards:** K-4 Life Science; History & Nature of Science; Science as Inquiry

**California Science Standards:** 3: Investigation and Experimentation 5d,e

VIPS 2000
Unifying Concept: Evidence, Models, and Explanation; Constancy, Change, and Measurement; Evolution and Equilibrium
Big Idea: Rocks and minerals have identifiable characteristics.

Sub Concept I: Many earth materials combine to make rocks.

Sub Concept II: Minerals are the ingredients of rocks. Minerals can be ranked by their hardness.

Sub Concept III: Calcite is the only mineral that fizzes when placed in vinegar (acid).

Sub Concept IV: Granite is a rock containing the minerals feldspar, quartz, black mica, and hornblende.

Description of Assessment: End-of-unit assessment includes a hands-on task, pictorial assessment, and reflective questions assessment, review student work (e.g. science notebooks)

Science Process Skills: Observing, Questioning, Comparing, Communicating, Predicting, and Categorizing

National Science Standards: K-4 Earth/Space Science; Physical Science; Science in Personal and Social Perspectives; History & Nature of Science; Science as Inquiry

California Science Standards: 3: Investigation and Experimentation 5a,c
Sound Storyline
Insights Third Grade

Unifying Concept: Evidence, Models, and Explanation; Form and Function
Big Idea: Sounds are caused by vibrations of matter. Pitch, volume, and quality (timbre) are three of the main characteristics of sound.

Sub Concept I: Vibrations cause sounds.

Sub Concept II: Pitch is related to tension and the size of the vibrating matter.

Sub Concept III: Volume is related to the strength of the vibration and the amount of vibrating material.

Sub Concept IV: Sound is transmitted by many materials.

Sub Concept V: Music is sound.

Description of Assessment: Introductory questionnaire, embedded assessment (LE8), final assessment, review student work (e.g. science notebooks)

Science Process Skills: Observing, Questioning, Comparing, Communicating, Applying, and Categorizing

National Science Standards: K-4 Physical Science, Science & Technology; History & Nature of Science; Science as Inquiry

California Science Standards: 3: Physical Science 1d

VIPS 2000
**Amazing Air Storyline**
*Delta Third Grade*

**Unifying Concept:** Systems, Order, and Organization; Evidence, Models, and Explanation; Constancy, Change, and Measurement; Form and Function

**Big Idea:** Air takes up space, has weight, exerts constantly changing pressure, and is always in motion.

**Sub Concept I:** Air is a substance with physical properties.

**Sub Concept II:** A substance's volume is the amount of space it occupies.

**Sub Concept III:** Air has weight; it presses down on everything beneath it.

**Sub Concept IV:** Air moves. Air resists the movement of objects through it.

**Description of Assessment:** End-of-unit assessment includes a hands-on task, picture interpretation, and verbal questions, review student work (e.g. science notebooks)

**Science Process Skills:** Observing, Questioning, Comparing, Communicating, Applying, and Categorizing

**National Science Standards:** K-4 Physical Science; History & Nature of Science; Science as Inquiry

**California Science Standards:** 3: Investigation and Experimentation 5a,d,e

*optional VIPS 2000