3rd Grade Science Curriculum Map

Unit of Study	The sequence of Units of Study provides a coherent flow to science instruction throughout the year.
Interconnections Lessons	Specific lessons, listed in order of which Essential Question they correspond to, are listed in the map to help plan your pacing of material.
Science Content/Language Objectives	The Science Content and Language Objectives are to be posted for each lesson, restated to students during the lesson, and revisited at the end of each lesson. These are written as "I Can" statements.
Key Concepts for Differentiation 0🔑	In an effort to assist teachers in the process of differentiation in Tier I teaching, Key Concepts have been identified in the curriculum maps as those specific objectives a teacher would focus on during small group instruction with struggling students. Key concepts cover minimum, basic skills and knowledge every student must master. Key Concepts are <u>not</u> an alternative to teaching the entire Utah Core Standards, rather they emphasize which concepts to prioritize for differentiation.
Vocabulary	Use in word walls, or in science notebooks and graphic organizers.
Additional Resources/Notes	Teachers are encouraged to makes notes or jot down resources they find useful for each unit.
Assessment	Each Interconnection lesson has an assessment, but you may also look at more general options such as Exit slips, graphic organizers, class discussion, homework

Unit of Study 1	3rd Grade	Quarter 1	Science Mar 2013 ed.

Concepts:	Skills:
Interactions, relationships, cause and effect	Analysis, communication

Standards:

Standard II: Students will understand that organisms depend on living and nonliving things within their environment.

Objective 1: Classify living and nonliving things in an environment.

Objective 2: Describe the interactions between living and nonliving things in a small environment.

Science Content Objectives	Vocabulary students should use		Lessons
• I can classify living and nonliving things in an environment. I can describe the interactions between living and nonliving things in a small environment.	• aquarium • environment • interaction • living • moisture • nonliving	• observe • organism • small-scale • survive • temperature • terrarium	• Characteristics of Living Things • Living Things Grow and Develop • Living Things Adapt to their Environment* • Habitat: Small Environments* • Environmental Comparisons* **Key Concepts covered in these lessons.* **Additional Resources:**
Science Language Objectives • Describe the relationship between a series of scientific ideas or steps in technical procedures. • Use information gained from illustrations and words to demonstrate understanding. • Write informative/explanatory texts to convey ideas clearly. • Conduct short research projects that build knowledge about a science concept. • Engage in collaborative discussions • Ask and answer questions about information from a speaker.			

Assessment Options: Interconnections lessons-each lesson has a built in assessment

General: projects, lab notebooks, discussions, exit slips, homework,

Unit of Study 2A	3rd Grade	Quarter 2	Science Mar 2013 ed.

Concepts:	Skills:
Interactions, relationships, relative motion, cause and effect	Analysis, communication

Standards:

Standard III: Students will understand the relationship between the force applied to an object and resulting motion of the object.

Objective 1: Demonstrate how forces cause change in speed or direction of objects.

Objective 2: Demonstrate that the greater the force applied to an object, the greater the change in speed or direction of the object.

Science Content Objectives	Vocabulary students should use		Lessons
I can demonstrate how forces cause change in speed or direction of objects. I can demonstrate that the greater the force applied to an object, the greater the change in speed or direction of the object.	• direction • distance • force • motion	• simple machine • speed • weight	Essential Question #1 • Push or Pull* • Force in Motion* • Force Applied to an Object* • Collision zone* Essential Question #2 • Simple Machines* • Simple Machine Inventions* **Key Concepts covered in these lessons.* **Additional Resources:**

Science Language Objectives

- Describe the relationship between a series of scientific ideas or steps in technical procedures.
- Use information gained from illustrations and words to demonstrate understanding.
- Write informative/explanatory texts to convey ideas clearly.
- Conduct short research projects that build knowledge about a science concept.
- Engage in collaborative discussions
- Ask and answer questions about information from a speaker.

Assessment Options: Interconnections lessons-each lesson has a built in assessment

General: projects, lab notebooks, discussions, exit slips, homework,

Unit of Study 2B	3rd Grade	Quarter 3	Science Mar 2013 ed.

Concepts:	Skills:
Interactions, relationships, relative motion, cause and effect	Analysis, communication

Standards:

Standard IV: Students will understand that objects near Earth are pulled toward Earth by gravity.
Objective 1: Demonstrate that gravity is a force.
Objective 2: Describe the effects of gravity on the motion of an object.

Science Content Objectives	Vocabulary students should use		Lessons
 I can demonstrate that gravity is a force. • I can describe the effects of gravity on the motion of an object.	• direction • distance • force • gravity	• motion • speed • weight	<u>Essential Question #3</u> • Introduction to Gravity* • Gravity is a Force* • Roller Coasters • Gravity Experiments **Key Concepts are covered in these lessons.* **Additional Resources:**
Science Language Objectives • Describe the relationship between a series of scientific ideas or steps in technical procedures. • Use information gained from illustrations and words to demonstrate understanding. • Write informative/explanatory texts to convey ideas clearly. • Conduct short research projects that build knowledge about a science concept. • Engage in collaborative discussions • Ask and answer questions about information from a speaker.			

Assessment Options: Interconnections lessons-each lesson has a built in assessment
General: projects, lab notebooks, discussions, exit slips, homework,

Unit of Study 3A	3rd Grade	Quarter 3	Science Mar 2013 ed.

Concepts:	Skills:
Interactions, relationships, relative motion, cause and effect	Analysis, communication

Standards:

Standard I: Students will understand that the shape of Earth and the moon are spherical and that Earth rotates on its axis to produce the appearance of the sun and moon moving through the sky.
Objective 1: Describe the appearance of Earth and the moon.
Objective 2: Describe the movement of Earth and the moon and the apparent movement of other bodies through the sky.

Science Content Objectives	Vocabulary students should use		Lessons
I can describe the appearance of Earth and the moon. I can describe the movement of Earth and the moon and the apparent movement of other bodies through the sky.	• appearance • axis • model • moon	• orbit • revolution • rotation • sphere	Essential Question #1 • All About the Moon* Essential Question #2 • Motions of the Earth and Moon* • Phases of the Moon* **Key Concepts are covered in these lessons.* **Additional Resources:**

Science Language Objectives

- Describe the relationship between a series of scientific ideas or steps in technical procedures.
- Use information gained from illustrations and words to demonstrate understanding.
- Write informative/explanatory texts to convey ideas clearly.
- Conduct short research projects that build knowledge about a science concept.
- Engage in collaborative discussions
- Ask and answer questions about information from a speaker.

Assessment Options: Interconnections lessons-each lesson has a built in assessment
General: projects, lab notebooks, discussions, exit slips, homework,

Unit of Study 3B	3rd Grade	Quarter 4	Science Mar 2013 ed.

Concepts:	Skills:
Interactions, relationships, relative motion, cause and effect	Analysis, communication

Standards:

Standard II: Students will understand that the sun is the main source of heat and light for things living on Earth. They will also understand that the motion of rubbing objects together may produce heat.
Objective 1: Provide evidence showing that the sun is the source of heat and light for Earth.
Objective 2: Demonstrate that mechanical and electrical machines produce heat and sometimes light.
Objective 3: Demonstrate that heat may be produced when objects are rubbed against one another.

Science Content Objectives	Vocabulary students should use		Lessons
I can provide evidence showing that the sun is the source of heat and light for Earth. • I can demonstrate that mechanical and electrical machines produce heat and sometimes light. • I can demonstrate that heat may be produced when objects are rubbed against one another.	• degrees • electrical • heat source • lubricated	• machine • mechanical • misconception • temperature	Essential Question #3 • The Sun* • Plants Need Sunlight* • Sunlight Affects People & Animals* Essential Question #4 • Heat Sources • Heat Produced by Machines • Friction **Key Concepts are covered in these lessons.* **Additional Resources:**
Science Language Objectives • Describe the relationship between a series of scientific ideas or steps in technical procedures. • Use information gained from illustrations and words to demonstrate understanding. • Write informative/explanatory texts to convey ideas clearly. • Conduct short research projects that build knowledge about a science concept. • Engage in collaborative discussions • Ask and answer questions about information from a speaker.			

Assessment Options: Interconnections lessons-each lesson has a built in assessment
General: projects, lab notebooks, discussions, exit slips, homework,