Science Unit Map – Grade 5 – Trimester 2

Trimester Focus:

- Measuring Changes in Motion
- Animal Systems

Big Ideas:

Motion:

- Forces are pushes and pulls that can be contact and non-contact forces.
- Motion is described relative to something else (point of reference).
- A change in motion is due to unbalanced forces.
- No change in motion and an object at rest are due to balanced forces.
- Every force is part of an interaction between one thing and another.

Animal Systems:

- Animals' bodies are made up of various body systems that perform specific functions.
- These body systems function together and contribute to the animal's survival and well being.

GLCEs	Vocabulary	Resources (See Curriculum Calendar for Details)	Assessment/Activities
Motion: *Distinguish between contact forces and noncontact forces and demonstrate how they change the motion of an object* *Describe what happens to an object when is acted upon by two or more forces in the same or opposing directions* *Describe how constant motion is the result of a net force of zero (balanced)* *Describe how changes in the motion of objects is caused by nonzero (unbalanced) forces* *Relate the size of change in motion to the strength of unbalanced forces and the mass of the object* *Explain the motion of an object relative to an point of reference* *Describe the motion of an object in terms of distance, time, and direction* *Demonstrate motion on a graph* *Animal Systems:* *Identify systems within an animal (digestive, circulatory, respiratory, skeletal, muscular, nervous, excretory, reproductive* *Explain the interactions of the above systems and how they work together* ***See inquiry and reflection GLCEs**	Motion: balanced force change of direction change of motion change of speed force strength friction graph magnetic attraction magnetic repulsion mass relative position constant speed direction of motion gravitational force speed unbalanced force zero net force non-zero net force Animals: Digestive system Circulatory system Skeletal system Muscular system Nervous system Excretory system Reproductive system	**MOTION** Textbook: • National Geographic Physical Science chapter 3 & suggested chapter 4 (for vocab.) Suggested Trade Books: • The Magic School Bus Plays Ball: A Book About Forces (Magic School Bus Series) by Joanna Cole Websites, Video Streaming, & Smart Board Activities: • myNGconnect.com • See grade level resource packet Grade Level Resource Packet: • See unit Measuring changes in Motion **ANIMAL SYSTEMS** Textbooks: • National Geographic Life Science chapter 5 Suggested Textbook Resource: • MI Model-phase 3 • Systems of the Human Body Milliken Transparency Book Suggested Trade Books: • How Bodies Work: Animal Physiology (Come Learn with me) by Bridget Anderson Websites, Video Streaming, and Smartboard Activities : • myNGconnect.com • See grade level resource packet Grade Level Resource Packet: • See unit Animal Systems	**Motion:** Formative Assessment • Demonstrations and explorations using magnets to change motion which would include moving a magnetic object that is at rest, repelling or attracting another magnet from distance. • Students illustrate via graphs or number lines what it means to move regarding distance, time and direction. • Poetry: Poetic formats such as • Shape Poems, Haiku, Cinquaine, Diamonde, Limerick and Sonnet • Quick Writes • Design inquiry experiments using contact and non-contact forces Summative Assessment • Poster, brochure, or Power Point presentation on energy transfer • Written report on uses/benefits of alternative power **Animal Systems:** Formative assessment • Evaluate the accuracy of students' matching of body systems with appropriate organ/part and function. • Explain which body systems, during exercise, are most involved and they work together. Summative assessment • Complete a fill in the blank chart with three columns: body system, parts (organs), general purpose. • Explain what body systems work together as you do your homework.