

# Yu Laoshi's Class 1<sup>st</sup> Quarter Science Objectives 2016-2017

## 4<sup>th</sup> Grade: Matter & Energy (8 weeks)

4.P.2.1 Compare the physical properties of samples of matter (strength, hardness, flexibility, ability to conduct heat, ability to conduct electricity, ability to be attracted by magnets, reactions to water and fire).

4.P.3.1 Recognize the basic forms of energy (light, sound, heat, electrical and magnetic) as the ability to cause motion or create charge.

4.P.3.2 Recognize that light travels in a straight line until it strikes an object or travels from one medium to another, and that light can be reflected, refracted and absorbed.

## 2<sup>nd</sup> Quarter Science Objectives

### 4<sup>th</sup> Grade: Magnets, Electricity, Minerals, & Rocks (9 weeks)

4.P.1.1 Explain how magnets interact with all things made of iron and with other magnets to produce motion without touching them.

4.P.1.2 Explain how electrically charged objects push or pull on other electrically charged objects—electrical charges can result in attraction, repulsion and electrical discharge.

4.P.2.2 Minerals

Explain how minerals are identified using tests for the physical properties of hardness, color, luster, cleavage and streak.

4.P.2.3 Rock classify

Classify rocks as metamorphic, sedimentary, or igneous based on their composition, how they are formed and the processes that create them.

## 3<sup>rd</sup> Quarter Science Objectives

### 4<sup>th</sup> Grade: Fossils, Land Changes, Moon, & Adaptations (9 weeks)

4.E.2.1 Compare fossils (including molds, casts, and preserved parts of plants and animals) to one another and to living organisms.

4.E.2.2 Infer ideas about Earth's early environments from fossils of plants and animals that lived long ago.

4.E.2.3 Give examples of how the surface of the earth changes due to slow processes such as erosion and weathering and rapid processes such as landslides, volcanic eruptions and earthquakes.

4.E.1.1 Explain the cause of day and night based on the rotation of Earth on its axis.

4.E.1.2 Explain the monthly changes in the appearance of the moon, based on the moon's orbit around the Earth.

4.L.1.3 Explain how humans can adapt their behavior to live in changing habitats (e.g., recycling wastes, establishing rain gardens, planting trees and shrubs to prevent flooding and erosion).

4.L.1.1 Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.

## **4<sup>th</sup> Quarter Science Objectives**

### **4<sup>th</sup> Grade: Animal Adaptations & Nutrition** (7 weeks)

4.L.1.2 Explain how animals meet their needs by using behaviors in response to information received from the environment.

4.L.1.4 Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.

4.L.2.1 Classify substances as food or nonfood items based on their ability to provide energy and materials for survival, growth and repair of the body.

4.L.2.2 Explain the role of vitamins, minerals and exercise in maintaining a healthy body.