# Information for Course Syllabus

Name of Course: Science

Grade Level: 6

Major Assignments:

JMS – Energy PBL, Biomes PBL, Weather/Atmosphere Project RMS – Interactive Notebook, Energy PBL, Biomes Presentation

Field Trips: None

How can parents access instructional materials? Canvas

#### Term 1

Good State6.PS3.1 Analyze the properties and compare sources of kinetic, elastic potential, gravitational potential, electric potential, chemical, and thermal energy.6.PS3.2 Construct a scientific explanation of the transformations between potential and kinetic energy.6.PS3.3 Analyze and interpret data to show the relationship between kinetic energy and the mass of an object in motion and its speed.6.PS3.4 Conduct an investigation to demonstrate the way that heat (thermal energy) moves among objects through radiation, conduction, or convection.

ingineering	Design	<b>6.ETS1.2</b> Design and test different solutions that impact energy transfer.
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and	Activity	<b>6.ESS3.1</b> Differentiate between renewable and nonrenewable resources by asking questions about their availability and sustainability.
Earth	Human	<b>6.ESS3.2</b> Investigate and compare existing and developing technologies that utilize renewable and alternative energy resources.

#### Term 2

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**6.ESS2.2** Diagram convection patterns that flow due to uneven heating of the earth.

**6.ESS2.1** Gather evidence to justify that oceanic convection currents are caused by the sun's transfer of heat energy and differences in salt concentration leading to global water movement.

**6.ESS2.4** Apply scientific principles to design a method to analyze and interpret the impact of humans and other organisms on the hydrologic cycle.

**6.ESS2.3** Construct an explanation for how atmospheric flow, geographic features, and ocean currents affect the climate of a region through heat transfer.

**6.ESS2.6** Explain how relationships between the movement and interactions of air masses, high and low pressure systems, and frontal boundaries result in weather conditions and severe storms.

**6.ESS2.5** Analyze and interpret data from weather conditions, weather maps, satellites, and radar to predict probable local weather patterns and conditions.

#### Term 3

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**6.ESS3.3** Assess the impacts of human activities on the biosphere including conservation, habitat management, species endangerment, and extinction.

Ecosystems: Interactions Energy, and Dynamics **6.LS2.6** Research the ways in which an ecosystem has changed over time in response to changes in physical conditions, population balances, human interactions, and natural catastrophes.

# Term 3

l Change:	Diversity	<b>6.LS4.1</b> Explain how changes in biodiversity would impact ecosystem stability and natural resources.
Biologica	Unity and	<b>6.LS4.2</b> Design a possible solution for maintaining biodiversity of ecosystems while still providing necessary human resources without disrupting environmental equilibrium.
Engineering	Design	<b>6.ETS1.1</b> Evaluate design constraints on solutions for maintaining ecosystems and biodiversity.

#### Term 4



#### **TNReady Review**

**Project Based Learning**