**Weather and Climate**

**Overview & Concepts**

This module examines the fundamentals of weather and climate and why scientists are cautious about confirming a link between the two. You will learn the differences between weather and climate, how climate is classified, and how scientists define and identify weather extremes.

When you complete this module, you should be able to

* Differentiate between weather and climate.
* Characterize the five general types of climate, as defined by Koppen’s Climate classification system.
* Explain the relationship between global warming and climate change.
* Compare methods meteorologists use for forecasting weather to those used by climate scientists for predicting climate trends.
* Analyze temperature data to identify recent heat waves at various locations on Earth.

Identify extreme weather events using the National Climatic Data Center (NCDC) website.

**Science Standards (Next Generation Science Standards, Sunshine State Science Standards, and Climate and Energy Literacy Principles)**

See website for standards addressed in the module.

**Suggested Scope and Sequencing of Module**

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| **Day 1**Introduction (20 min.)  | Loading the Dice: How Probable Are Warmer than Normal Seasons?  |
| **OR** | The Reasons for the Seasons (should we include this one too??? |
| **Day 2**Inquiry Lesson | Superstorm Sandy Inquiry Lesson (in development) |
| **Days 3 – 4**Module Content | Guided Reading/Note-Taking, and PowerPoint Presentation |
| **Day 5**Investigation Lesson | Extreme Measures: Are Extreme Weather Events Increasing? |
| **Day 6**Argumentation Practice | ??????????????? |
| **Evaluation** | Pre and Post Quiz Questions, Inquiry Lesson, Guided Reading/Note-Taking, and Argumentation Practice |