

# New Science Benchmarks Grade 6-8

Climate-Related Benchmarks added by NDOE with support from PCEP (May 2014)

Disaster Risk Reduction-Related Benchmarks added by NDOE with support from IOM (August 2014)

## Grade 6

Sci.3.6.6

### **Earth and Space Science**

Learners have a basic understanding of causes and effects of previous natural hazards/disasters in their community (e.g. drought, landslide, typhoon, wave inundations).

Sci.4.6.5

### **Life and Environmental Science**

Identify causes of pollution in local marine and other island environments, and suggest ways to minimize such pollution (e.g. recycling).

Sci.5.6.4

### **Marine Science**

Diagram the impacts of sea level rise on island security with respect to homes, transportation, fresh water, and food.

## Grade 7

Sci.3.7.5

### **Earth and Space Science**

Learners understand patterns/trends of past local disasters in terms of locations, durations, seasons and impacts.

Sci.4.7.6

### **Life and Environmental Science**

Describe how conserving environmental resources and protecting environments from pollution can improve the health of ecosystems and make them more resilient with respect to climate change.

Sci.4.7.7

### **Life and Environmental Science**

Illustrate how ecosystems on and around an island are connected to and affect each other.

Sci.4.7.8

### **Life and Environmental Science**

Learners are able to employ basic first aid skills in assisting with minor injuries.

## Grade 8

Sci.3.8.8

### **Earth and Space Science**

Diagram how energy flows into within and out of the Earth system including reflection and absorption of sunlight, ocean and wind circulation of heat, and the greenhouse effect.

Sci.4.8.7

### **Life and Environmental Science**

Explain how human activities, especially the burning of fossil fuels, are causing the global climate to change, and how climate changes in one part of the planet can cause changes that affect other parts of the planet.

Sci.4.8.8

### **Life and Environmental Science**

Explain how climate change and its impacts will affect island ecosystems such as mangroves and coral reefs, and analyze which adaptation strategies are likely to be most effective for different ecosystems.



## Grade 8 (continued)

Sci.4.8.9

### **Life and Environmental Science**

Explain how climate change and its impacts will affect island communities (shelter, transportation, freshwater, food, economy and health) and analyze which adaptation strategies are likely to be most effective for increasing resilience.

Sci.4.8.10

### **Life and Environmental Science**

Learners understand the impacts of past local disasters from socioeconomic, gender, and human rights perspective.

Sci.4.8.11

### **Life and Environmental Science**

Learners understand the dynamics of the El-Niño-Southern Oscillation (ENSO) cycle and its effects on continental climates and the learners own climate, including the interaction between ocean and atmosphere, and potential impacts on the economy (e.g. fisheries).

Sci.5.8.5

### **Marine Science**

Explain how increased carbon dioxide in the atmosphere is increasing sea levels and causing ocean acidification, and diagram the impacts of these changes on marine ecosystems.

