



Standards and Objectives

Topic	Learning Objective	Maryland Standards Match	National Standards Match
A Blood Feast Mosquito bite (this may be best included in #8)	Students will be able to visualize the process of a mosquito biting a person		
Deadly Parasites Life cycle of <i>Plasmodium falciparum</i> , one of four parasites that cause malaria	Students will be able to trace the life cycle of <i>Plasmodium falciparum</i> , including its symbiotic relationship with the female <i>Anopheles</i> mosquito.	3.0 F.1.a (Grade 6)	NSF 6.2 NOAA 1c
History of a Lethal Disease Malaria (and other vector borne diseases)	Students will be able to discuss the course of malaria and identify factors that lead to its increased range, and the increased range of other vector borne diseases.	3.0 D.1.a (Grade 8) 3.0 F.1.a (Grade 6)	NSF 6.2 NOAA 1e, 6f, 7e AAAS-Science in Personal and Social Perspectives, Natural Hazards
Changing Climate, Changing Habitats Effect of climate change on animal and plant distribution	Students will be able to explain how changes in temperature, precipitation, and habitat distribution change animal and plant distribution, including that of the mosquito.	3.0 D.1.a (Grade 8) 3.0 F.1.a (Grade 6) 6.0-B. 1a (Grade 6,7,8)	NSF 3.8, 6.2 NOAA 1c, 6f, 7e AAAS-Science in Personal and Social Perspectives, Natural Hazards
Tracking Temperature Trends Temperature change	Students will be able to locate relevant temperature data and analyze its significance	6.0-B. 1a (Grade 7)	NSF 3.6 NOAA 4h, 6b, 6e
The Carbon Cycle Carbon cycle, carbon reservoirs	Students will be able to describe the carbon cycle, identify carbon reservoirs, and describe carbon exchange between carbon reservoirs and the atmosphere.	6.0-B. 1a (Grade 7)	NSF 3.6 NOAA 4h, 6b, 6e



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<p>The Greenhouse Effect The effect of greenhouse gases and radiation on temperature</p>	<p>Students will be able to describe the relationship between CO₂ levels in the atmosphere and the temperature of the earth</p>	<p>2.0-E.2.b (Grade 8) 6.0-B.1.a (Grade 6,7,8)</p>	<p>NSF 3.2, 3.6, 3.8 NOAA 3e,3g, 4g, 4h</p>
<p>Molecules on the Move: Greenhouse Gases Molecular behavior of greenhouse gases</p>	<p>Students will be able to explain on a molecular level why certain gases are more efficient than others at capturing radiation</p>	<p>2.0-E.2b (Grade 8)</p>	<p>NSF 3.8 NOAA 3e</p>
<p>Fossil Fuel and a Fiery Future Fossil Fuel</p>	<p>Students will be able to describe the relationship between the burning of fossil fuels, the production of greenhouse gases, and the carbon cycle</p>	<p>6.0-B. 1a (Grade 6,7,8)</p>	<p>NSF 3.2, 9.3 NOAA 1f, 4d, 4h,6b, 6d, 6e, 7e</p>
<p>What We Do Now... Relationship between greenhouse gases and human activity</p>	<p>Students will be able to identify human activities that produce greenhouse gases</p>	<p>6.0-B. 1a (Grade 6,7,8)</p>	<p>NSF 6.2, 9.3 NOAA 1f, 7e</p>
<p>Blood Fever Mosquito and malaria instructional framework</p>	<p>Students will be able to find relevance in the above materials</p>	<p>6.0-B. 1a (Grade 6,7,8)</p>	<p>NSF 3.8, 6.2, 9.3 AAAS-Science in Personal and Social Perspectives, Natural Hazards</p>