

CALS Environmental Awareness Rubric

Students will:	Exemplary	Competent	Emerging	Undeveloped
<p><b>Explain physical interactions within ecosystems</b> (for example, the movement of water among the soil, vegetation and atmosphere)</p>	<p>Assesses and explains linkages between physical and biological ecosystem components from molecular to global scales; synthesizes relevance of many kinds of physical interactions within ecosystems; describes specific mechanisms associated with these interactions and uses them to predict and evaluate potential outcomes across spatial and temporal scales.</p>	<p>Describes linkages between physical and biological components across at least three scales; identifies specific physical interactions, interprets and explains mechanisms by which interactions occur across spatial and temporal scales.</p>	<p>Describes interactions at one to two (spatial or temporal) scales; identifies and lists four to six kinds of physical interactions within ecosystems; does not identify mechanisms or linkages to biological components.</p>	<p>Unable to describe mechanisms, linkages, or scale issues; recognizes and identifies two to three physical interactions but is unable to adequately describe them or scales at which they occur.</p>
<p><b>Explain biological interactions within ecosystems</b> (for example, can describe complex trophic structures and other relationships among organisms in ecosystems)</p>	<p>Describes and evaluates relevance of many kinds of biological interactions within ecosystems; identifies specific mechanisms associated with these interactions; describes linkages with physical elements and predicts outcomes of these interactions for individual organisms and the biosphere.</p>	<p>Identifies and describes specific biological interactions, can explain some mechanisms by which interactions occur, is aware of linkages to physical components across scales.</p>	<p>Able to identify and list a limited number of biological interactions within ecosystems, does not identify mechanisms or linkages to physical components at one or two scales.</p>	<p>Identifies but is unable to fully describe biological interactions; unable to differentiate mechanisms, linkages, or scale issues.</p>
<p><b>Explain how human activities impact the environment</b> (for example, by changing land use or by altering nutrient flows)</p>	<p>Provides comprehensive description of intended and unintended consequences of many human activities that have environmental impacts; anticipates potential problems and identifies and evaluates trade-offs; articulates how humans could participate in solutions.</p>	<p>Describes environmental consequences of human activities; identifies several dimensions of problems/trade-offs associated with them; offers simplistic solutions that address those problems.</p>	<p>Describes environmental consequences of a limited number of human activities; identifies one or two dimensions of problems; struggles to identify possible solutions.</p>	<p>Unable to fully describe environmental consequences of human activities; perceives and describes environmental impacts in “black and white”.</p>
<p><b>Explain how societies are affected by environmental change</b> (for example, due to changes in biodiversity, water quality and availability, and climate)</p>	<p>Anticipates and evaluates effects of changing environmental conditions, both positive and negative, on societies at multiple scales, from local to global; able to estimate consequences and predict potential outcomes.</p>	<p>Recognizes positive and negative effects of changing environmental conditions, can discern across limited scales (e.g. local to regional).</p>	<p>Recognizes either positive or negative effects of changing environmental conditions at one or two scales.</p>	<p>Considers only negative impacts of changing environmental conditions, describes effects on society only at a local scale.</p>