

## How we share the planet

*An exploration of our rights and responsibilities as we try to share finite resources with other people, with other living things; of communities and of the relationships within and between them.*

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| <p><b>Central idea:</b><br/>All living things, no matter how small, affect human beings and the earth.</p>                                                                                                                                                                                                                                         | <p><b>Central idea:</b><br/>Living things have similar needs but inhabit different environments and have external features that help them thrive in these different places.</p>                                                                                                                                                                                                                                            | <p><b>Central idea:</b><br/>Natural resources provide humans with the necessary materials to survive.</p>                                                                                                                                                                                                                                                       | <p><b>Central idea:</b><br/>The decisions people make affects the global world.</p>                                                       | <p><b>Central idea:</b><br/>People depend on, adapt to, and/or modify their physical environment in order to obtain resources.</p>                                                                                                                                                                                                                         | <p><b>Central idea:</b><br/>Individuals have a responsibility to respect their environment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>Transdisciplinary Skills:</b><br/>Science, ELA</p>                                                                                                                                                                                                                                                                                           | <p><b>Transdisciplinary Skills:</b><br/>Science, ELA, Art</p>                                                                                                                                                                                                                                                                                                                                                              | <p><b>Transdisciplinary Skills:</b><br/>Science, Social Studies, ELA</p>                                                                                                                                                                                                                                                                                        | <p><b>Transdisciplinary Skills:</b><br/>IN DEVELOPMENT</p>                                                                                | <p><b>Transdisciplinary Skills:</b><br/>Social Studies, ELA</p>                                                                                                                                                                                                                                                                                            | <p><b>Transdisciplinary Skills:</b><br/>Science, ELA, Social Studies</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>Lines of inquiry:</b></p> <ul style="list-style-type: none"> <li>a) How insects help the earth reduce waste.</li> <li>b) How insects benefit the growth of living plants.</li> <li>c) The role humans have in supporting living things.</li> </ul>                                                                                           | <p><b>Lines of inquiry:</b></p> <ul style="list-style-type: none"> <li>• Plant and animal needs</li> <li>• Animal dependency on plants for food and shelter</li> <li>• Relationship of plants with other living things</li> </ul>                                                                                                                                                                                          | <p><b>Lines of inquiry:</b></p> <ul style="list-style-type: none"> <li>d) Categorize rocks-texture, luster, shape, size</li> <li>e) Earth resources provide materials that humans use can describe where earth materials are naturally found</li> <li>f) Understand the stages of the water cycle</li> <li>g) Understand how the earth provides food</li> </ul> | <p><b>Lines of inquiry:</b></p> <ul style="list-style-type: none"> <li>• IN DEVELOPMENT</li> </ul>                                        | <p><b>Lines of inquiry:</b></p> <ul style="list-style-type: none"> <li>• The physical environment in which a people live determines the resources available to them.</li> <li>• How and why people adapt to their physical environment</li> <li>• How and why people modify their environment</li> </ul>                                                   | <p><b>Lines of inquiry:</b></p> <ul style="list-style-type: none"> <li>• Renewable and Non-Renewable Resources</li> <li>• Conservation</li> <li>• Impact of humans on the environment</li> <li>• Our responsibility to the environment</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>Teacher questions:</b><br/>What is happening to the trash in our compost bin?<br/>How is the compost bin changing?<br/>How can the soil help our garden?<br/>What would happen if we did not recycle our table scraps?<br/>What would happen if everyone recycled their table scraps?</p>                                                    | <p><b>Teacher questions:</b><br/>What are the basic needs of plants?<br/>What are the basic needs of animals?<br/>Why do plants and animals choose to live in a particular habitat?<br/>What external features do they have to help them survive in their habitat?<br/>How do plants and animals help other living things exist?<br/>How can we protect plants and animals?<br/>Do plants and animals need protection?</p> | <p><b>Teacher questions:</b><br/>How do we sort rocks into groups?<br/>What are Earth's resources?<br/>How do we use the resources?<br/>What is the water cycle?<br/>How does the earth provide food?<br/>How can we conserve our natural resources?</p>                                                                                                        | <p><b>Teacher questions:</b><br/>IN DEVELOPMENT</p>                                                                                       | <p><b>Teacher questions:</b><br/>How did early people of CA change their ways of life as their environment changed?<br/><br/>How did the CA Indians of the northern coastal region of CA depend on the natural resources around them?<br/><br/>How did CA Indians in the desert region adapt to, or modify, their dry environment in order to survive?</p> | <p><b>Teacher questions:</b></p> <ul style="list-style-type: none"> <li>• What are the renewable resources available today?</li> <li>• How can we use alternative forms of renewable energy?</li> <li>• How have humans impacts the environment negatively?</li> <li>• How does solar energy work?</li> <li>• How is solar energy used within the community?</li> <li>• How can solar energy be utilized in everyday life?</li> </ul>                                                                                                                                                                                                                                                                                                                                                          |
| <p><b>Key concepts:</b><br/>Change, Causation, Form</p>                                                                                                                                                                                                                                                                                            | <p><b>Key concepts:</b><br/>Connection, Causation, Responsibility</p>                                                                                                                                                                                                                                                                                                                                                      | <p><b>Key concepts:</b><br/>Form, Function, Connection</p>                                                                                                                                                                                                                                                                                                      | <p><b>Key concepts:</b><br/>IN DEVELOPMENT</p>                                                                                            | <p><b>Key concepts:</b><br/>Connection, Perspective, Change</p>                                                                                                                                                                                                                                                                                            | <p><b>Key concepts:</b><br/>Change, responsibility, reflection</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>Developing transdisciplinary and learner profile skills:</b></p> <ul style="list-style-type: none"> <li>• Students will become <u>knowledgeable</u> on creating their own composting bin at home to recycle table scraps.</li> <li>• Students will be <u>inquirers</u> by developing their curiosity when working with red worms.</li> </ul> | <p><b>Developing transdisciplinary and learner profile skills:</b></p> <ul style="list-style-type: none"> <li>• Literacy-Science – read books</li> <li>• Art-science – draw pictures</li> <li>• Students suggestions and ideas</li> </ul>                                                                                                                                                                                  | <p><b>Developing transdisciplinary and learner profile skills:</b></p> <ul style="list-style-type: none"> <li>•</li> </ul>                                                                                                                                                                                                                                      | <p><b>Developing transdisciplinary and learner profile skills:</b></p> <ul style="list-style-type: none"> <li>• IN DEVELOPMENT</li> </ul> | <p><b>Developing transdisciplinary and learner profile skills:</b></p> <ul style="list-style-type: none"> <li>• IN DEVDELOPMENT</li> </ul>                                                                                                                                                                                                                 | <p><b>Developing transdisciplinary and learner profile skills:</b></p> <p><b>Transdisciplinary Skills</b><br/><b>Acquisition of knowledge:</b> Throughout their renewable energy study, the students will gain knowledge about academic vocabulary, facts and ideas and communicate new ideas using this knowledge. They will also interpret data using this base of knowledge.</p> <p><b>Research Skills:</b> The students will formulate a question to research, and plan their research around that question. They will gather, record, organize and interpret data. They will present their findings in an oral report with the support of a visual aid.</p> <p><b>Learner Profile-</b></p> <p><b>Communicators:</b> Students will communicate their findings in an oral presentation.</p> |

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| <p><b>Summative assessment:</b></p> <ul style="list-style-type: none"> <li>• Chart students' thinking</li> <li>• Journal writing</li> <li>• Illustrations</li> <li>• Diagrams</li> <li>• Poetry</li> <li>• Weekly log</li> <li>• Thinking maps and student-generated charts</li> <li>• Partner sharing (work and communicating their thinking)</li> </ul> | <p><b>Summative assessment:</b></p> <ul style="list-style-type: none"> <li>• Basic needs of plants and animals</li> <li>• Recreating habitat – art</li> <li>• Science journals – basic needs</li> <li>• Thinking maps</li> <li>• Students write letters to save habitats</li> <li>• Presentations to other students</li> <li>• Students may take action by thinking of ways to protect plants and animals in their natural habitats</li> </ul> | <p><b>Summative assessment:</b></p> <ul style="list-style-type: none"> <li>• PreAssessment: circle map – What I know about rocks</li> <li>• Water cycle diagram</li> <li>• Where do we get our food?</li> <li>• Rock record</li> <li>• How does the earth provide resources that humans use?</li> <li>• From farm to table flow map</li> <li>• How we use resources workbook pg. 3</li> </ul> | <p><b>Summative assessment:</b></p> <ul style="list-style-type: none"> <li>• IN DEVELOPMENT</li> </ul> | <p><b>Summative assessment:</b></p> <p>At the end of this unit, students will use their notes in order to construct a paragraph detailing various examples of how different tribes used, adapted to, and /or modified their environment in order to meet their needs. Using a teacher developed rubric, they will create a poster display that includes their paragraph and labeled pictures that properly displays their paragraph. The project, as described in the rubric, should focus on the groups' location, and how their geographic location affected the available resources, as well as how they modified or adapted to their environment.</p> | <p><b>Summative assessment:</b></p> <p>Students will decide on an investigable question to research. They will conduct this research using multiple resources available to them, such as classroom library and school computer lab. After they have completed their research, they will write a report to present their findings. The report would include a hypothesis, data, summary, conclusion and next steps. In addition, the students designed exhibits that would be present orally during their school-wide Family Science Night School.</p> <p>Assessment Tool: Teacher create rubrics were created for the written report, as well as the oral presentation of their research.</p> |
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