

Congruence with the NGSS

Unit Title: Natural Hazards: Never Turn Your Back on Mother Earth

Science and Engineering Practices (SEPs)

| SEPS | Activities |
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| Asking Questions and Defining Problems | <ul style="list-style-type: none"> Locating an Earthquake With Recent Seismic Data Hurricanes Lab 9: Death and Destruction Climate and Civilization - The Maya Example |
| Developing and Using Models | <ul style="list-style-type: none"> Seismology S-P Earthquake Location Locating an Earthquake With Recent Seismic Data |
| Planning and Carrying Out Investigations | <ul style="list-style-type: none"> Seismology S-P Earthquake Location Locating an Earthquake With Recent Seismic Data Climate and Civilization - The Maya Example |
| Analyzing and Interpreting Data | <ul style="list-style-type: none"> Rapid Earthquake Viewer Seismology S-P Earthquake Location Locating an Earthquake With Recent Seismic Data Climate and Civilization - The Maya Example |
| Using Mathematics and Computational Thinking | <ul style="list-style-type: none"> Seismology S-P Earthquake Location Locating an Earthquake With Recent Seismic Data Climate and Civilization - The Maya Example |
| Constructing Explanations and Designing Solutions | <ul style="list-style-type: none"> Tsunami Run-up Prediction for Seaside, Oregon Natural hazards pose risk to humans Hurricanes Lab 9: Death and Destruction |
| Engaging in Argument from Evidence | <ul style="list-style-type: none"> Hurricanes Lab 2: Hurricane Anatomy Locating an Earthquake With Recent Seismic Data Tsunami Run-up Prediction for Seaside, Oregon |
| Obtaining, Evaluating and Communicating Information | <ul style="list-style-type: none"> Tsunami Run-up Prediction for Seaside, Oregon Natural hazards pose risk to humans Climate and Civilization - The Maya Example |
| Scientific Knowledge is based on Empirical Evidence | <ul style="list-style-type: none"> Rapid Earthquake Viewer Hurricanes Lab 2: Hurricane Anatomy |

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| | <ul style="list-style-type: none"> • Locating an Earthquake With Recent Seismic Data • Climate and Civilization - The Maya Example |
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Disciplinary Core Ideas (DCIs)

| DCIs | Activities |
|---|---|
| ESS2A: Earth Materials and Systems | <ul style="list-style-type: none"> • Natural hazards pose risk to humans • Hurricanes ab 9: Death and Destruction |
| ESS2B: Plate Tectonics and Large-Scale Systems | <ul style="list-style-type: none"> • Rapid Earthquake Viewer • Seismology S-P Earthquake Location • Locating an Earthquake With Recent Seismic Data • Volcanic Hazards |
| ESS2C: The Role of Water in Earth's Surface Processes | <ul style="list-style-type: none"> • Natural hazards pose risk to humans • Hurricanes Lab 9: Death and Destruction |
| ESS2D: Weather and Climate | <ul style="list-style-type: none"> • Natural hazards pose risk to humans • Climate and Civilization - The Maya Example |
| ESS3B: Natural Hazards | <ul style="list-style-type: none"> • Rapid Earthquake Viewer • Seismology S-P Earthquake Location • Locating an Earthquake With Recent Seismic Data • Tsunami Run-up Prediction for Seaside, Oregon |
| ESS3C: Human Impacts on Earth's Systems | <ul style="list-style-type: none"> • Natural hazards pose risk to humans |
| ESS3D: Global Climate Change | <ul style="list-style-type: none"> • Natural hazards pose risk to humans • Climate and Civilization - The Maya Example |

Cross Cutting Concepts (CCCs)

| CCCs | Activities |
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| Patterns | <ul style="list-style-type: none"> • Rapid Earthquake Viewer • Seismology S-P Earthquake Location • Locating an Earthquake With Recent Seismic Data |

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| Cause and Effect | <ul style="list-style-type: none"> • Seismology S-P Earthquake Location • Locating an Earthquake With Recent Seismic Data • Climate and Civilization - The Maya Example |
| Scale, Proportion, and Quantity | <ul style="list-style-type: none"> • Hurricanes Lab 2: Anatomy of a Hurricane |
| Systems and System Models | <ul style="list-style-type: none"> • Natural hazards pose risk to humans • Seismology S-P Earthquake Location |
| Energy and Matter | <ul style="list-style-type: none"> • Tsunami Run-up Prediction for Seaside, Oregon • Natural hazards pose risk to humans • Hurricanes Lab 9: Death and Destruction |
| Structure and Function | <ul style="list-style-type: none"> • Seismology S-P Earthquake Location • Locating an Earthquake With Recent Seismic Data |
| Stability and Change | <ul style="list-style-type: none"> • Rapid Earthquake Viewer • Natural hazards pose risk to humans • Locating an Earthquake With Recent Seismic Data • Tsunami Run-up Prediction for Seaside, Oregon |
| Interdependence of Science, Engineering and Technology | <ul style="list-style-type: none"> • Rapid Earthquake Viewer • Natural hazards pose risk to humans • Seismology S-P Earthquake Location |
| Influence of Engineering, Technology and Science on Society and the Natural World | <ul style="list-style-type: none"> • Natural hazards pose risk to humans • Locating an Earthquake With Recent Seismic Data • Tsunami Run-up Prediction for Seaside, Oregon • Climate and Civilization - The Maya Example |