

Coastal Education Modules *from the Oregon Coast Education Program*

<http://www.pacname.org/oregon-coast-education-program>

	Module 1 – Coastal Ecosystems & Ecology		
	Watersheds	Estuaries	Oceans
Elementary	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Watershed Walk <input type="checkbox"/> Watershed Modeling <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Macroinvertebrates <input type="checkbox"/> Salmon Studies <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Making the Connection 	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Welcome to the Estuary <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tides of the Estuary <input type="checkbox"/> Estuary in a Bottle <input type="checkbox"/> The Brant Project <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Salt Marsh Mania <input type="checkbox"/> Tidal Flat Exploration <input type="checkbox"/> Surveying the Shoreline <input type="checkbox"/> Web of Life 	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Beach Explorers <input type="checkbox"/> Tidepool Inquiry <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Growing Up in the Ocean <input type="checkbox"/> Squid Dissection <input type="checkbox"/> Ocean Animal Adaptations <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recipe for an Ocean <input type="checkbox"/> Kelp Forests <input type="checkbox"/> Exploring Symbiosis
Middle	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Watershed Walk <input type="checkbox"/> Watershed Modeling <input type="checkbox"/> Mapping Your Watershed <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Macroinvertebrates <input type="checkbox"/> Salmon Studies <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Making the Connection <input type="checkbox"/> Riparian Areas 	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Welcome to the Estuary <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tides of the Estuary <input type="checkbox"/> Life in the Waters <input type="checkbox"/> Bountiful Birds <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Salt Marsh Mania <input type="checkbox"/> Tidal Flat Exploration <input type="checkbox"/> Surveying the Shoreline <input type="checkbox"/> Estuary Food Pyramid 	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ocean Observation <input type="checkbox"/> Tidepool Inquiry <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Rocky Shore Survivors <input type="checkbox"/> Squid Dissection <input type="checkbox"/> Ocean Animal Adaptations <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recipe for an Ocean <input type="checkbox"/> Web of Life <input type="checkbox"/> Biodiversity
High School	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Watershed Walk <input type="checkbox"/> Watershed Modeling <input type="checkbox"/> Mapping Watersheds & Estuaries <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Macroinvertebrates <input type="checkbox"/> Salmon Studies <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Watershed Health 	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Observing Estuaries <input type="checkbox"/> Mapping Watersheds & Estuaries <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Survival in an Estuary <input type="checkbox"/> Salinity and Tides <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Eelgrass Communities <input type="checkbox"/> Tidal Flat Exploration <input type="checkbox"/> Biodiversity in an Estuary 	<p>INTRODUCTION</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ocean Observation <input type="checkbox"/> Tidepool Inquiry <p>COASTAL HABITATS & SPECIES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Squid Dissection <input type="checkbox"/> TOPP Predators <input type="checkbox"/> Telemetry Tales <p>COASTAL ECOLOGY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Energy Flow <input type="checkbox"/> Tidepool Diversity <input type="checkbox"/> Arctic Ocean Ecology

Module 2 – Impacts & Solutions			
	Land and Water Use	Pollution	Sustainable Harvester
Elementary	<p>PLACE</p> <input type="checkbox"/> Mapping the Connection <input type="checkbox"/> Field Trip Sites	<p>PLACE</p> <input type="checkbox"/> Human Impact Survey <input type="checkbox"/> Beach Debris	<p>PLACE</p> <input type="checkbox"/> Algae in Your House <input type="checkbox"/> Words from the Ocean
	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> This Land is Your Land <input type="checkbox"/> Water Use	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> Plastics Around Us <input type="checkbox"/> Classroom Recycling	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> Beach Bill <input type="checkbox"/> Fishing
	<p>HUMAN IMPACTS</p> <input type="checkbox"/> Local Habitat Assessment <input type="checkbox"/> How Do Trees Affect Erosion? <input type="checkbox"/> Crayfish Invasion	<p>HUMAN IMPACTS</p> <input type="checkbox"/> Biodegradable Materials <input type="checkbox"/> Pathways to the Ocean	<p>HUMAN IMPACTS</p> <input type="checkbox"/> How Many Fish? <input type="checkbox"/> You're Excluded
	<p>STEWARDSHIP</p> <input type="checkbox"/> Animals in the Classroom <input type="checkbox"/> Habitat Restoration <input type="checkbox"/> Citizen Biomonitoring	<p>STEWARDSHIP</p> <input type="checkbox"/> Pollution Solutions <input type="checkbox"/> Washed Ashore	<p>STEWARDSHIP</p> <input type="checkbox"/> Finding a Balance <input type="checkbox"/> Bycatch Reduction
Middle	<p>PLACE</p> <input type="checkbox"/> Mapping the Connection <input type="checkbox"/> Field Trip Sites	<p>PLACE</p> <input type="checkbox"/> Human Impact Survey <input type="checkbox"/> Stormwater Pathways	<p>PLACE</p> <input type="checkbox"/> Algae in Your House <input type="checkbox"/> Words from the Ocean
	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> This Land is Your Land <input type="checkbox"/> Land Plan Challenge <input type="checkbox"/> Water Use	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> Dirty Water, Clean Water	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> Beach Bill <input type="checkbox"/> Fishing
	<p>HUMAN IMPACTS</p> <input type="checkbox"/> Local Habitat Assessment <input type="checkbox"/> How Do Trees Affect Erosion? <input type="checkbox"/> Invasive Species Impacts	<p>HUMAN IMPACTS</p> <input type="checkbox"/> Nonpoint Source Pollution <input type="checkbox"/> Who Dirtied the Water? <input type="checkbox"/> Real Time Data	<p>HUMAN IMPACTS</p> <input type="checkbox"/> How Many Fish? <input type="checkbox"/> You're Excluded
	<p>STEWARDSHIP</p> <input type="checkbox"/> Landscaping Projects <input type="checkbox"/> Stop the Invasion	<p>STEWARDSHIP</p> <input type="checkbox"/> Storm Drain Marking <input type="checkbox"/> Citizen Biomonitoring	<p>STEWARDSHIP</p> <input type="checkbox"/> Finding a Balance <input type="checkbox"/> Bycatch Reduction <input type="checkbox"/> Protected Areas
High School	<p>PLACE</p> <input type="checkbox"/> Mapping the Connection <input type="checkbox"/> Field Trip Sites	<p>PLACE</p> <input type="checkbox"/> Stormwater Pathways	<p>PLACE</p> <input type="checkbox"/> Algae in Your House <input type="checkbox"/> Words from the Ocean
	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> Land Use and Land Cover <input type="checkbox"/> Land Plan Challenge <input type="checkbox"/> Water Use	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> Wastewater Management	<p>HUMAN USE OF RESOURCES</p> <input type="checkbox"/> Beach Bill <input type="checkbox"/> Fishing
	<p>HUMAN IMPACTS</p> <input type="checkbox"/> Effects of Erosion <input type="checkbox"/> Invasive Species Impacts	<p>HUMAN IMPACTS</p> <input type="checkbox"/> Nonpoint Source Pollution <input type="checkbox"/> Huntington Beach Case Study <input type="checkbox"/> Real Time Data	<p>HUMAN IMPACTS</p> <input type="checkbox"/> How Many Fish? <input type="checkbox"/> You're Excluded
	<p>STEWARDSHIP</p> <input type="checkbox"/> Landscaping Projects <input type="checkbox"/> Citizen Biomonitoring	<p>STEWARDSHIP</p> <input type="checkbox"/> Team Marine	<p>STEWARDSHIP</p> <input type="checkbox"/> Finding a Balance <input type="checkbox"/> Bycatch Reduction <input type="checkbox"/> Protected Areas

Additional comments:

Module 3 – Climate Change			
	Rising Seas	Weather & Climate	Blue Chemistry
Elementary	<p>INTRODUCTION</p> <input type="checkbox"/> How do we know...?	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Climate vs. Weather <input type="checkbox"/> The Ocean and our Weather	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Carbon on the Move <input type="checkbox"/> Carbon Capture
	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Ocean Temperature <input type="checkbox"/> Where the Lands Meets the Sea <input type="checkbox"/> Expand and Contract	<p>IMPACTS</p> <input type="checkbox"/> Measuring Precipitation <input type="checkbox"/> Phenology	<p>IMPACTS</p> <input type="checkbox"/> Too Much Carbon
	<p>IMPACTS</p> <input type="checkbox"/> Melting Ice <input type="checkbox"/> King Tide Photos	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Dealing with Drought	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Protecting Wetlands <input type="checkbox"/> Plant for the Planet
	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Shoreline Structure <input type="checkbox"/> Engineering Ideas		
Middle	<p>INTRODUCTION</p> <input type="checkbox"/> How do we know...?	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Climate vs. Weather <input type="checkbox"/> The Ocean and our Weather	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Carbon on the Move <input type="checkbox"/> Blue Carbon
	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Ocean Temperature <input type="checkbox"/> Sea Level <input type="checkbox"/> Thermal Expansion	<input type="checkbox"/> Deep Density Drivers <input type="checkbox"/> Investigating El Nino	<input type="checkbox"/> Upwelling
	<p>IMPACTS</p> <input type="checkbox"/> Melting Ice <input type="checkbox"/> The New Waterfront	<p>IMPACTS</p> <input type="checkbox"/> Coastal Hazards <input type="checkbox"/> Inland Glaciers	<p>IMPACTS</p> <input type="checkbox"/> Ocean Acidification <input type="checkbox"/> Hypoxia
	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Shoreline Structure <input type="checkbox"/> The Fragile Fringe	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Dealing with Drought <input type="checkbox"/> Inland Planning for Salmon	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Adopt a Wetland <input type="checkbox"/> Fishing in the Future
High School	<p>INTRODUCTION</p> <input type="checkbox"/> How do we know...?	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Climate vs. Weather <input type="checkbox"/> Ocean Circulation	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Carbon on the Move <input type="checkbox"/> Blue Carbon
	<p>SCIENCE CONCEPTS</p> <input type="checkbox"/> Ocean Temperature <input type="checkbox"/> Sea Level <input type="checkbox"/> Thermal Expansion	<input type="checkbox"/> ENSO and Climate Variability	<input type="checkbox"/> Upwelling
	<p>IMPACTS</p> <input type="checkbox"/> Melting Ice <input type="checkbox"/> The New Waterfront	<p>IMPACTS</p> <input type="checkbox"/> Coastal Hazards <input type="checkbox"/> Inland Glaciers	<p>IMPACTS</p> <input type="checkbox"/> Ocean Acidification <input type="checkbox"/> Hypoxia
	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Shoreline Structure <input type="checkbox"/> The Flood Next Time	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Coastal Decision-Making <input type="checkbox"/> Inland Planning	<p>PLANNING</p> <input type="checkbox"/> Reduce Emissions <input type="checkbox"/> Adopt a Wetland <input type="checkbox"/> Fishing in the Future

Additional comments: