

	Sandy beach	Rocky shore	Mangrove swamp	Coral reef	Kelp forest	Oceanic (open ocean)
Wildlife	Snowy plover, sea gooseberries, California beach hopper, eelgrass, sand clam, Dungeness crab, sanderling, etc. (West coast of North America)	Irish moss, blue mussel, periwinkle, harbour seal, herring gull, oystercatchers, dog whelks, sea stars, green crabs, etc. (East coast of North America)	Hérons, oysters, egrets, mosquitoes, pelicans, spoonbills, shrimp, snails, beetles, frogs, etc. (Some mangrove species from around the world)	Butterfly fish, sea cucumbers, stingrays, anemones, hermit crabs, giant clams, sponges, etc. (Some coral reef species from around the world)	Abalone, sea lions, kelpfish, harbour seals, sea otters, clams, crabs, anemones, etc. (Some kelp forest species from around the world)	
Where found	<ul style="list-style-type: none"> Generally found worldwide 	<ul style="list-style-type: none"> Generally found worldwide 	<ul style="list-style-type: none"> Most common in tropics, such as Malaysia, Philippines Florida 	<ul style="list-style-type: none"> In warm, shallow, tropical seas Most are found in the Caribbean, around Indian Ocean islands Red Sea and Persian Gulf Southeast Asia, South Pacific 	<ul style="list-style-type: none"> Along Pacific coast Near Chile, Peru, and Argentina Along Atlantic coast Australia, New Zealand, Tasmania, South Africa, etc. 	
Benefits of ecosystem	<ul style="list-style-type: none"> Diversity of wildlife Recreation Eating and resting spots for migrant birds Tourism 	<ul style="list-style-type: none"> Diversity of wildlife Tidepools Protects land from ocean 	<ul style="list-style-type: none"> Diversity of wildlife Stop shoreline erosion Traps sediments, keeps water clean Provides firewood Natural sewage treatment plants 	<ul style="list-style-type: none"> Diversity of wildlife Protects land from ocean waves Used in building materials, medicine, and jewellery 	<ul style="list-style-type: none"> Diversity of wildlife Used in foods, cosmetics, paper, ink 	
Problems and enemies	<ul style="list-style-type: none"> Pollution Oil spills Garbage and plastic litter Development Tourism 	<ul style="list-style-type: none"> Pollution Development Garbage and plastic litter 	<ul style="list-style-type: none"> Cut for timber and fuel Turned into fish and shellfish ponds Covered over by development 	<ul style="list-style-type: none"> Boat anchors Silt from rain forests being chopped down Fishing with dynamite and cyanide Tourists walking on reefs Pollution 	<ul style="list-style-type: none"> Pollution Over-harvesting Too many sea urchins 	
Solutions	<ul style="list-style-type: none"> Control pollution, development, etc. Prevent littering Education Limit tourism Local actions 	<ul style="list-style-type: none"> Control pollution, development, etc. Prevent littering Education Local actions 	<ul style="list-style-type: none"> Restrict cutting, development, etc. Education Local actions 	<ul style="list-style-type: none"> No anchors allowed Conserve rain forests Teach environmentally friendly fishing methods Education Control pollution Local actions 	<ul style="list-style-type: none"> Control pollution Protect from over-harvesting Protect sea urchin predators such as otters Education Local actions 	

0 m
Sunlight zone
200 m

1000 m

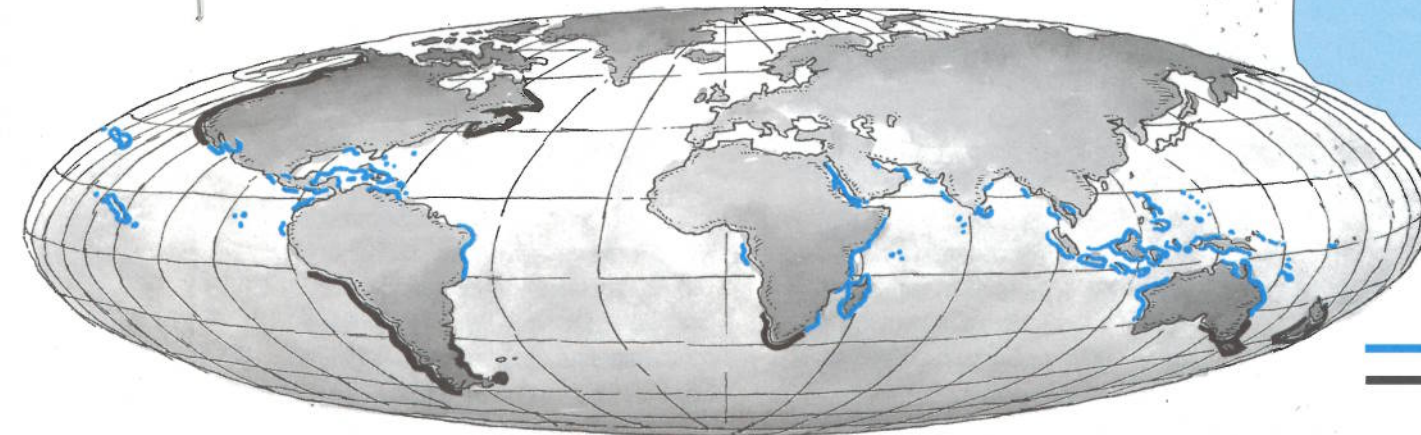
4000 m

Ocean floor

Use this chart to help students complete the activity on the back of the poster. First, photocopy and enlarge the three panels showing three ocean ecosystems — sandy beach, kelp forest, and coral reef. (You could also draw the panels on a large sheet of paper.) Older students can then cut out or trace the species illustrated below and paste them under the appropriate ecosystems. Have younger students cut out and colour the poster species, then tell them where to paste each one. For all students, use the chart to discuss details of the three ecosystems.

You can also choose other species illustrated throughout the booklet, then challenge students to research them and determine in which ocean and ecosystem they are found.

- Sandy beach:** Eelgrass, sand clam, sanderling, snowy plover
- Kelp forest:** Kelpfish, sea otter, harbour seal, sea urchin
- Coral reef:** Spiny lobster, butterfly fish, hermit crab, anemone



— Coral reefs
— Kelp forests