

NAME(S):

WALDEN GREEN MONTESSORI

THE ISLAND

CAPSTONE PROJECT (PART 1)



GEOGRAPHY LOCATION COORDINATES AREA CLIMATE
TERRAIN LAND AND WATER FORMS BIOMES FLORA FAUNA
NATURAL RESOURCES NATIONALITY LANGUAGES RELIGION
POPULATION HISTORY MAJOR CITIES LIFE EXPECTANCY
GOVERNMENT CAPITAL CONSTITUTION BUDGET
AGRICULTURE INDUSTRIES EXPORTS IMPORTS CULTURE
RENEWABLE ENERGY TRANSPORTATION MILITARY RAILWAYS
ROADWAYS AIRPORTS NATIONAL PARKS TOURISM
NATIONAL ANTHEM ETHNIC GROUPS FUNDAMENTAL NEEDS

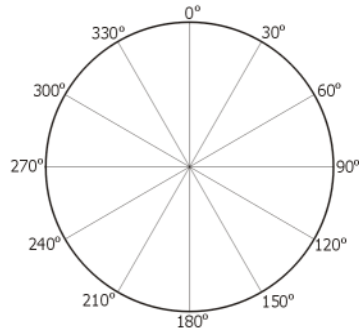
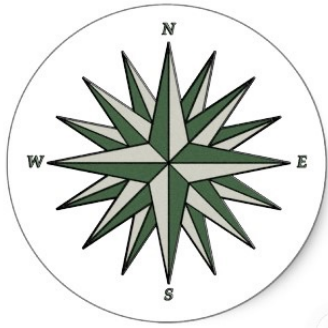
prepared by Mark Roessing

THE IMAGINARY ISLAND
CAPSTONE PROJECT
WALDEN GREEN MONTESSORI

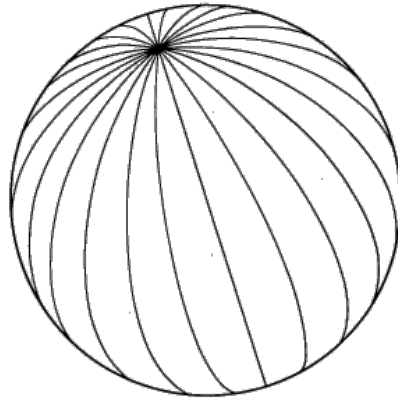
LEVELS
&
EXPECTATIONS

<p>Level 1: Latitude & Longitude</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 1A, 1B, 1C <input type="checkbox"/> Follow-Up Activity 	<p>Level 2: Global Marine & Wind Currents</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 2A, 2B, 2C, 2D <input type="checkbox"/> Follow-Up Activity 	<p>Level 3: Global Precipitation & Biomes</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 3A, 3B, 3C, 3D, 3E <input type="checkbox"/> Follow-Up Activity
<p>Level 4: Initial Map/Island Sketch</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 4A <input type="checkbox"/> Follow-Up Activity 	<p>Level 5: The Big Picture</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 5A <input type="checkbox"/> Follow-Up Activity 	<p>Level 6: Island Climates & Biomes</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: none (<i>individual research</i>) <input type="checkbox"/> Follow-Up Activity
<p>Level 7: Island Land & Water Forms</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 7A, 7B, 7C, 7D, 7E <input type="checkbox"/> Follow-Up Activity 	<p>Level 8: Island Flora (plants)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: none (<i>individual research</i>) <input type="checkbox"/> Follow-Up Activity 	<p>Level 9: Island Fauna (animals)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: none (<i>individual research</i>) <input type="checkbox"/> Follow-Up Activity
<p>Level 10: Natural Resources (biotic/abiotic)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 10A, 10B <input type="checkbox"/> Follow-Up Activity 	<p>Level 11: Island Energy Consumption</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 11A, 11B, 11C, 11D <input type="checkbox"/> Follow-Up Activity 	<p>Levels 12-13: Urban, Suburban, Rural Areas</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 12A, 12B <input type="checkbox"/> Follow-Up Activity
<p>Level 14: Island Political Physical Map</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 14A, 14B <input type="checkbox"/> Follow-Up Activity 	<p>Levels 15-17: Island Flag & Collage</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 16A, 16B <input type="checkbox"/> Follow-Up Activity 	<p>Levels 18: Island History</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 18A, 18B, 18C <input type="checkbox"/> Follow-Up Activity
<p>Levels 19: Island Area, Climate, Terrain</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: none (<i>individual research</i>) <input type="checkbox"/> Follow-Up Activity 	<p>Levels 20: Island Resources & Hazards</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 20A <input type="checkbox"/> Follow-Up Activity 	<p>Levels 21: Island Ethnic Groups</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 21A, 21B, 21C, 21D <input type="checkbox"/> Follow-Up Activity
<p>Levels 22: Island Languages & Religion</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 22A, 22B, 22C, 22D, 22E, 22F <input type="checkbox"/> Follow-Up Activity 	<p>Levels 23: Island Age Demographics</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 23A, 23B <input type="checkbox"/> Follow-Up Activity 	<p>Levels 24-25: Island Form of Government</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 24A, 24B, 24C, 24D, 24E <input type="checkbox"/> Follow-Up Activity
<p>Levels 26: Island Capital & Constitution</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: none (<i>individual research</i>) <input type="checkbox"/> Follow-Up Activity 	<p>Levels 27: Island National Anthem</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 27A <input type="checkbox"/> Follow-Up Activity 	<p>Levels 28: Island Budget & Exports/Imports</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 28A, 28B, 28C, 28D, 28E <input type="checkbox"/> Follow-Up Activity
<p>Levels 29: Transportation & Infrastructure</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: 29A, 29B, 29C <input type="checkbox"/> Follow-Up Activity 	<p>Levels 30: Island Stances on Social Issues</p> <ul style="list-style-type: none"> <input type="checkbox"/> Instructions/Directions <input type="checkbox"/> Video Presentations: "Social Issues" folder <input type="checkbox"/> Follow-Up Activity 	<p>Island Extension Activities</p> <ul style="list-style-type: none"> <input type="checkbox"/> Choice 1: <input type="checkbox"/> Choice 2: <input type="checkbox"/> Choice 3:

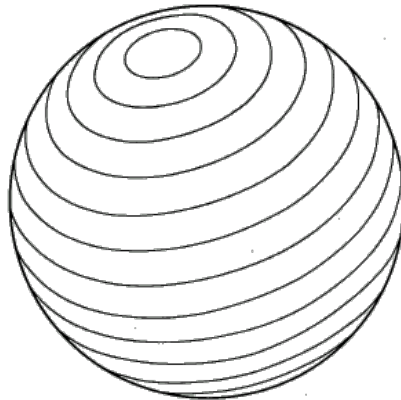
MAP LOCATION SYSTEMS/LONGITUDE AND LATITUDE



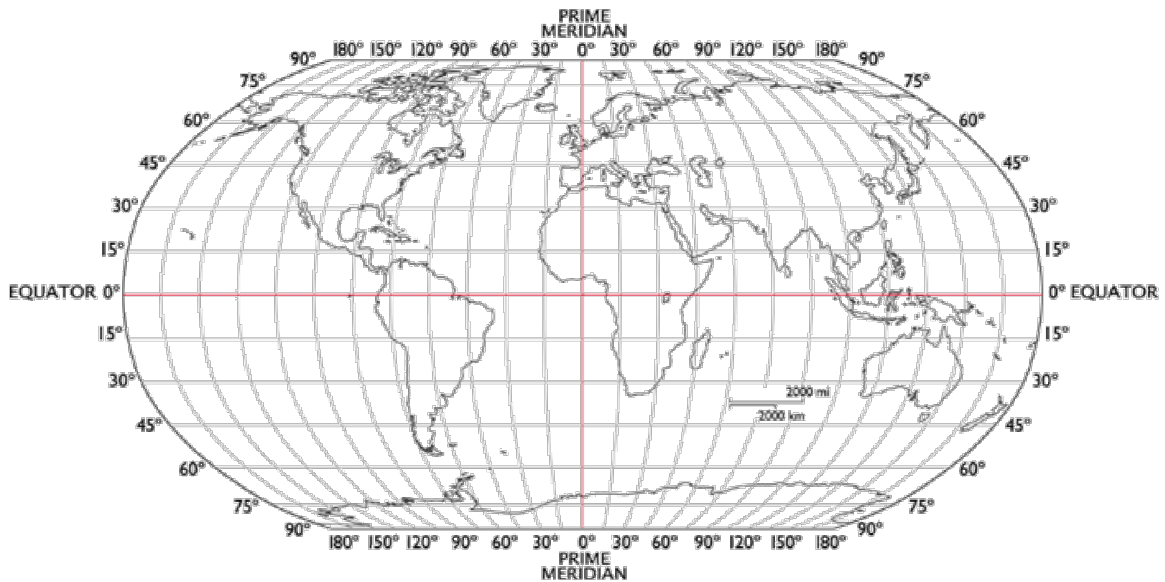
<https://www.findlatitudeandlongitude.com>



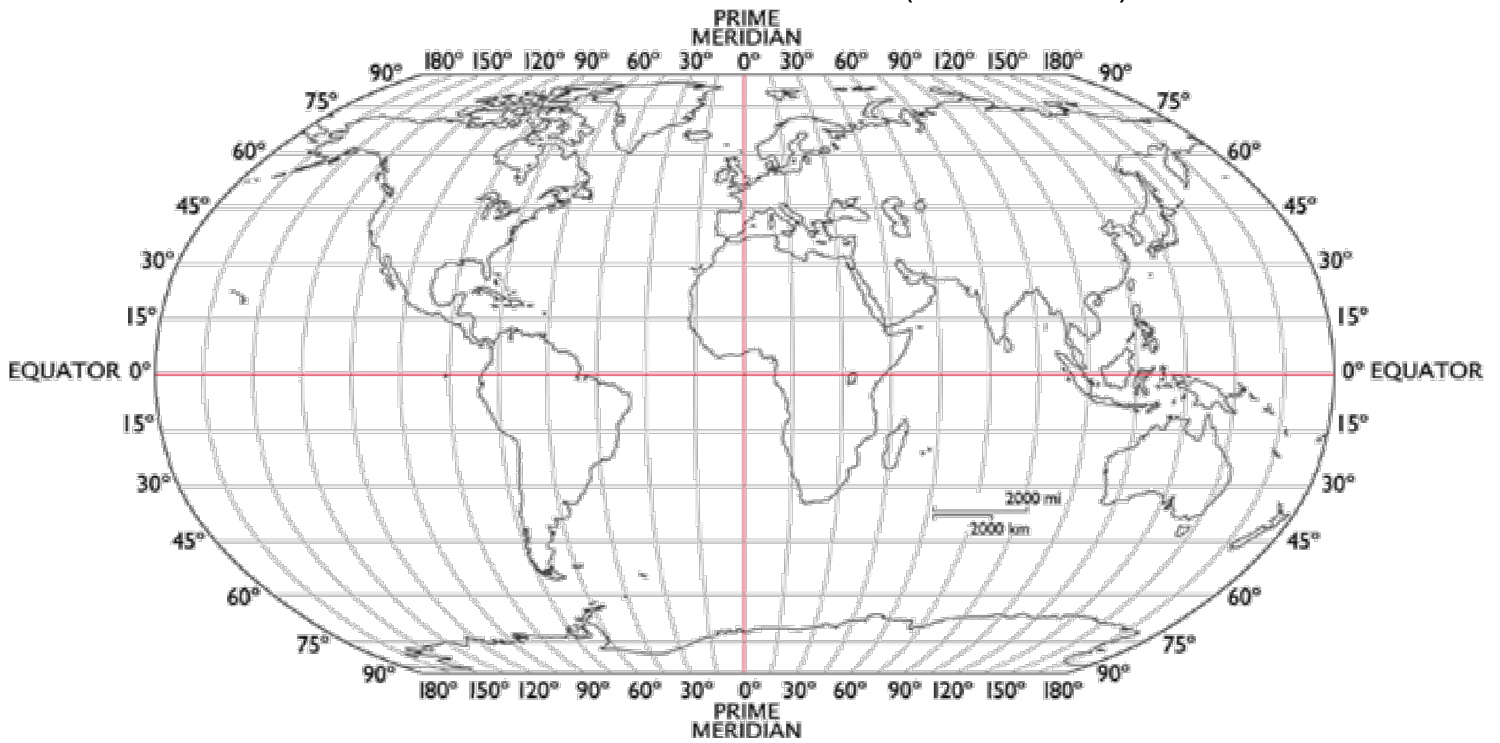
PLACE	ABSOLUTE LOCATION
Spring Lake, MI	
San Francisco, CA	
Paris, France	
Sydney, Australia	
Other:	
Other:	
Other:	
Other:	



LABEL DEGREES WITH: N, E, S, W

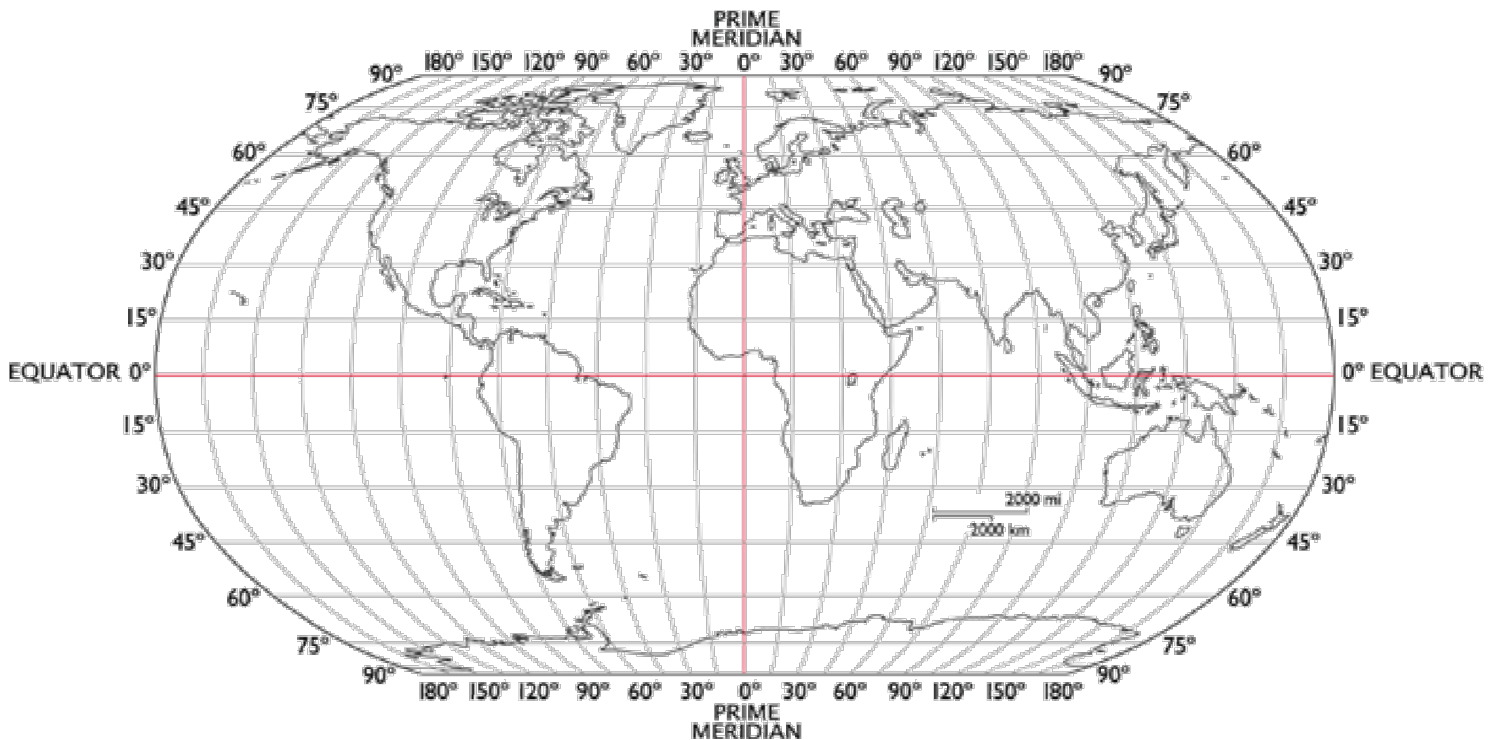


GLOBAL MARINE CURRENTS (label & color)

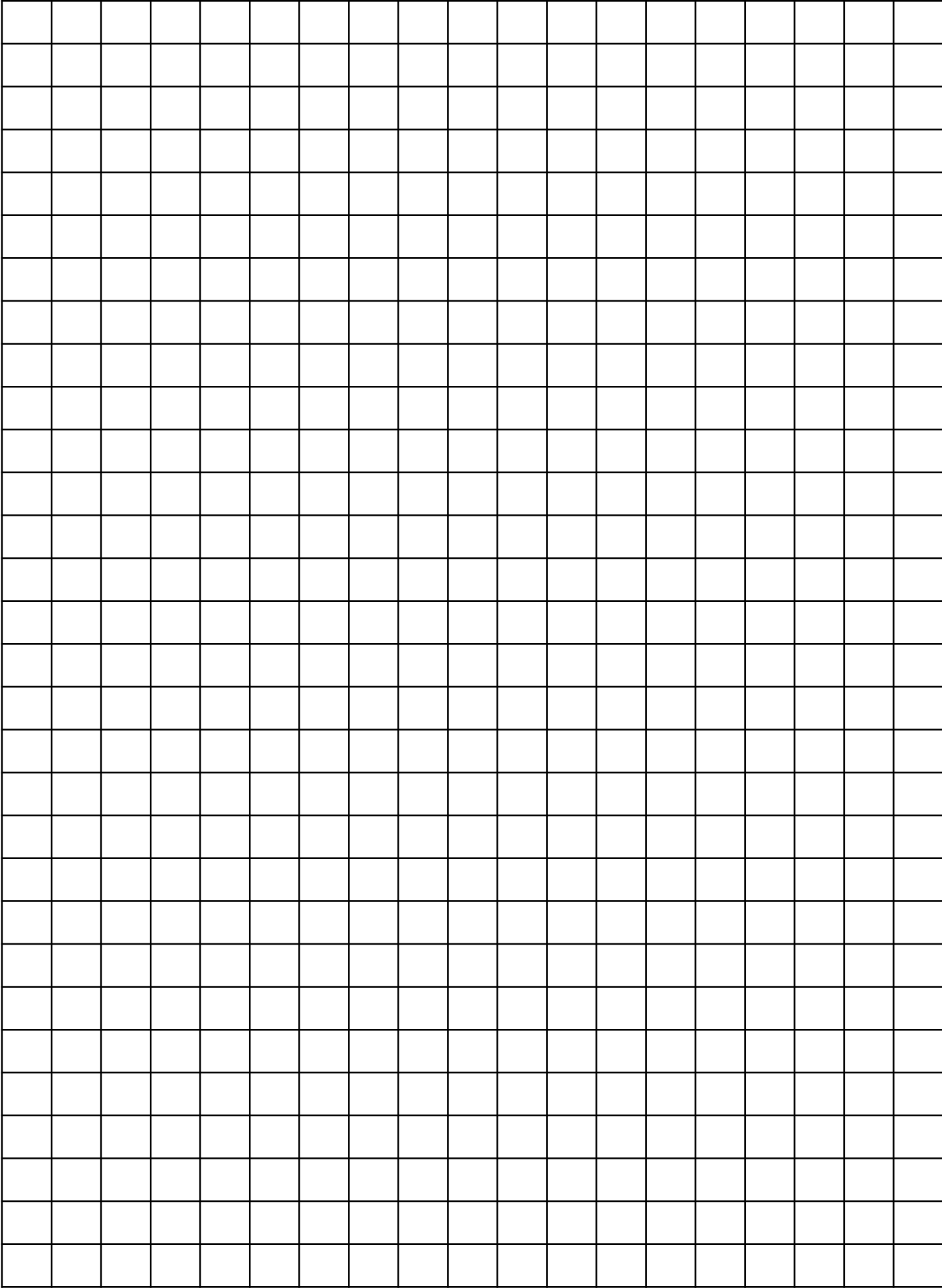


	Cold Currents
	Warm Currents

GLOBAL WIND CURRENTS (label & color)



Northeast Trades	Westerlies	Southeast Trades



initial map/island sketch: determining location/coordinates, shape, and area of island (1 square = 100 square km)



THE UNIVERSE



THE GALAXY



THE SOLAR SYSTEM



THE TERRESTRIAL PLANET

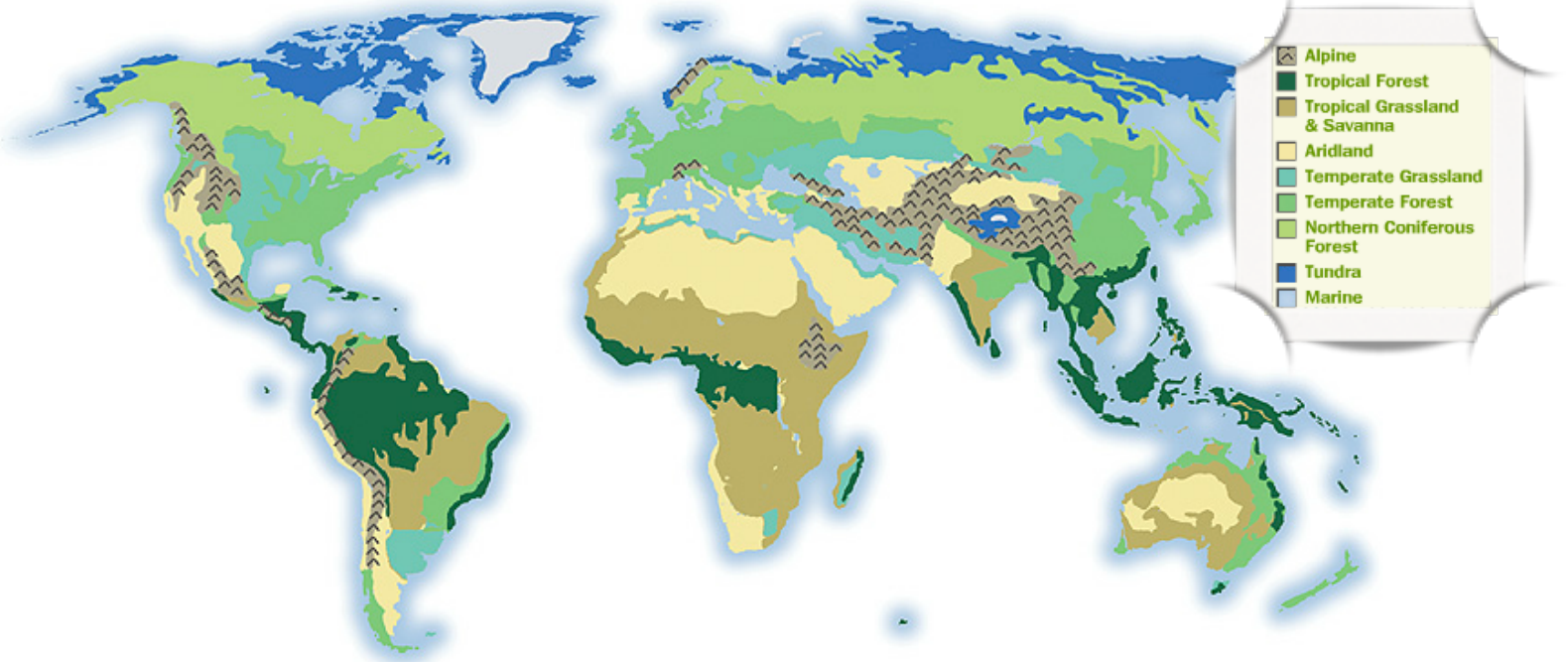


THE ISLAND

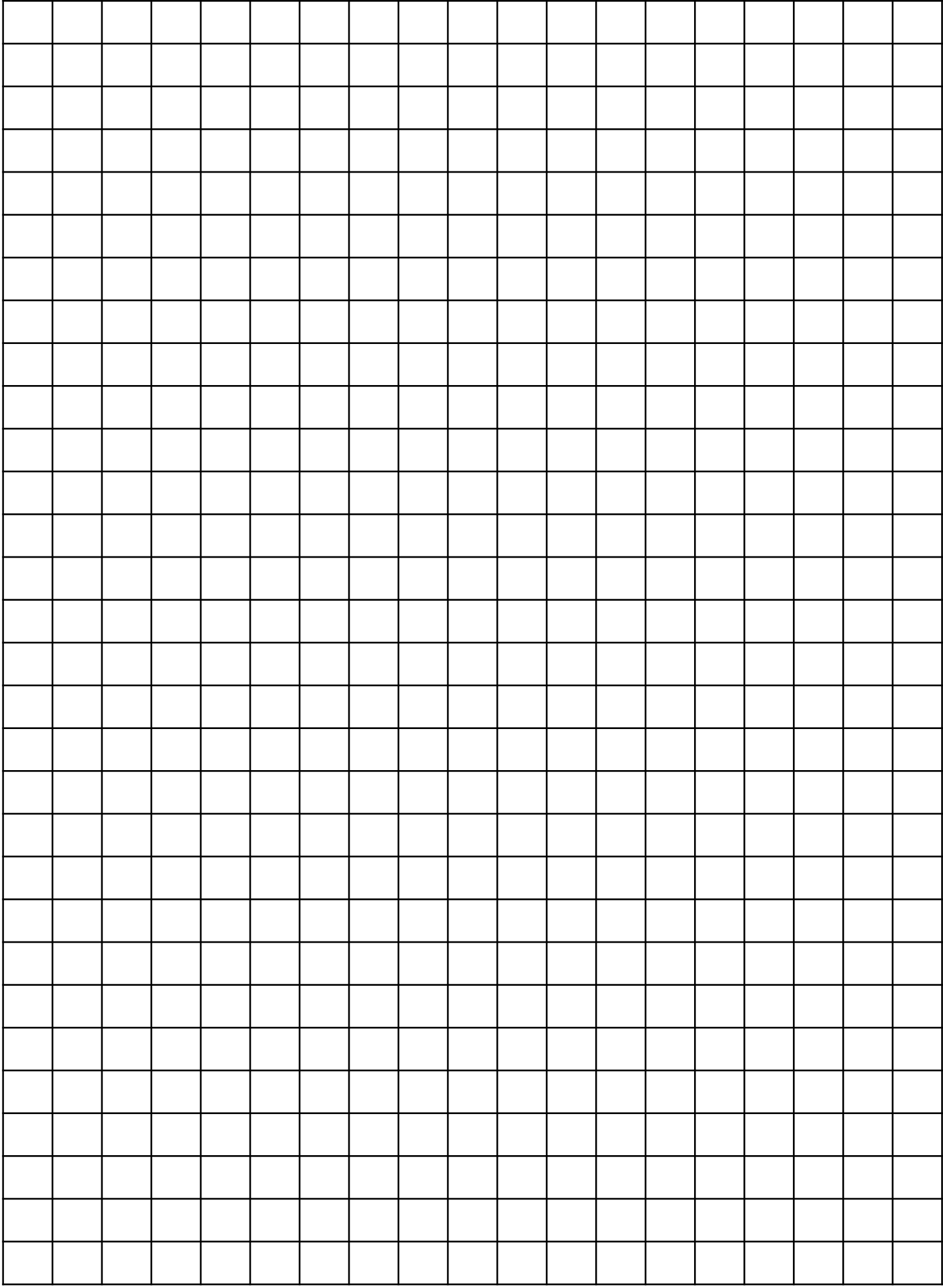


VIEW FROM ISLAND





1. How will the island's **location** to the **equator** and the **poles** impact its **climate**?
2. Which **biomes** will be on the island? (Note: must have at least 3 biomes)
3. **Why** will these **biomes** be present on the island? (Note: draw/color on map above)
4. How will the **marine currents** and **winds currents** of the world **impact** the island? (Note: cold marine currents usually dry out the winds that blow over them, while warm marine currents can bring very warm and humid air into latitudes of colder climates)
5. How will the the **average rainfall** for that part of the world **impact** the island?
6. How many **seasons** will the island have? Why? When?



DRAW COASTLINE OF ISLAND. Analyze/Draw/Label at least 5 land forms. Analyze/Draw/Label at least 5 water forms.

NOTE: Pay attention to windward/leeward sides of mountain ranges.



Alpine	Tropical Forest	Tropical Grassland	Desert/ Aridland	Temperate Grassland	Temperate Forest	Coniferous Forest	Tundra	Marine

BIOME 1:		BIOME 2:		BIOME 3:	
PLANT	PICTURE	PLANT	PICTURE	PLANT	PICTURE



Alpine	Tropical Forest	Tropical Grassland	Desert/ Aridland	Temperate Grassland	Temperate Forest	Coniferous Forest	Tundra	Marine

BIOME 1:		BIOME 2:		BIOME 3:	
ANIMAL	PICTURE	ANIMAL	PICTURE	ANIMAL	PICTURE













Renewable Resources: any natural resource (as wood or solar energy) that can be replenished naturally with the passage of time.

Non-Renewable Resources: resources that are consumed much faster than nature can create them.

1. Analyze the island's **terrain**. Select the best 3 **renewable** resources and 3 **nonrenewable** resources for the island.
2. Using the **diagrams** below, draw/color/label the **energy sources** on the island map above.
3. Show any other energy resources and **complete** the **energy consumption percentage chart** below.

ISLAND ENERGY CONSUMPTION BY SOURCE (must equal 100%)

	BIOMASS <i>renewable</i> Heating, electricity, transportation	soil plants compost	<input data-bbox="597 1318 760 1411" type="text" value="%"/>		PETROLEUM <i>nonrenewable</i> Transportation, manufacturing	<input data-bbox="1192 1318 1354 1411" type="text" value="%"/>
	HYDROPOWER <i>renewable</i> Electricity		<input data-bbox="597 1465 760 1558" type="text" value="%"/>		NATURAL GAS <i>nonrenewable</i> Heating, manufacturing, electricity	<input data-bbox="1192 1465 1354 1558" type="text" value="%"/>
	GEOTHERMAL <i>renewable</i> Heating, electricity		<input data-bbox="597 1617 760 1709" type="text" value="%"/>		COAL <i>nonrenewable</i> Electricity, manufacturing	<input data-bbox="1192 1617 1354 1709" type="text" value="%"/>
	WIND <i>renewable</i> Electricity		<input data-bbox="597 1768 760 1860" type="text" value="%"/>		URANIUM <i>nonrenewable</i> Electricity	<input data-bbox="1192 1768 1354 1860" type="text" value="%"/>
	SOLAR & OTHER <i>renewable</i> Light, heating, electricity		<input data-bbox="597 1919 760 2011" type="text" value="%"/>		PROPANE <i>nonrenewable</i> Manufacturing, heating	<input data-bbox="1192 1919 1354 2011" type="text" value="%"/>

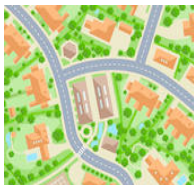
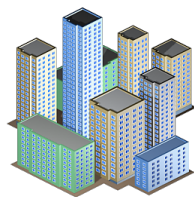
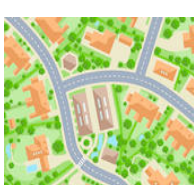
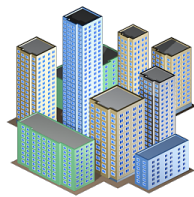


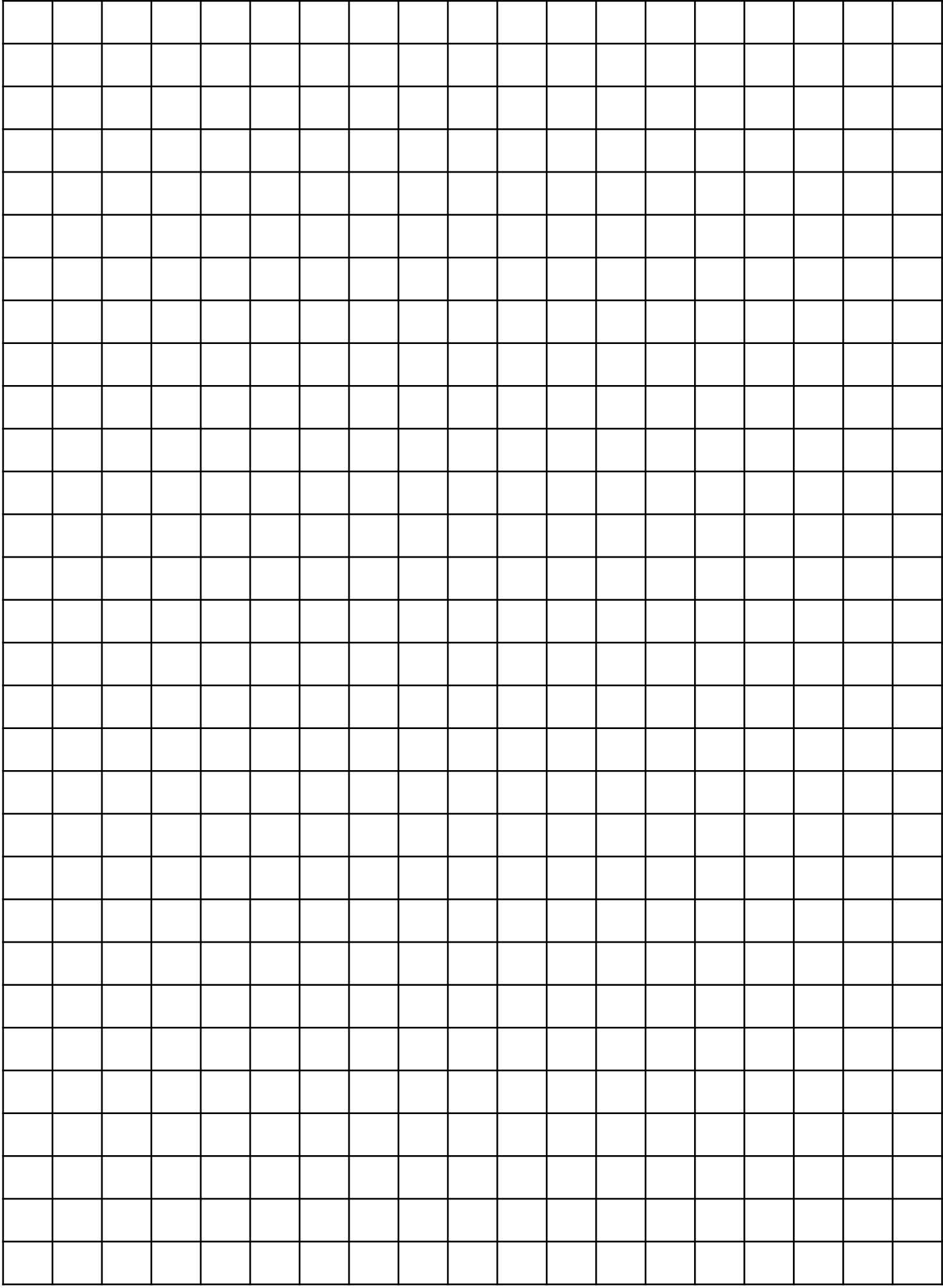
People often define **urban areas**, or cities, as land occupied by buildings and other structures used for residences and institutional and industrial sites. Urban areas often have some form of public transportation, such as buses, subways, or trains and have high population densities. Buildings are often closer together and built higher than those in suburban or rural areas.

Suburban areas are those on the outskirts of cities. Residents of suburban areas often commute to the cities for work. Some suburban areas have commuter trains and buses that shuttle people to and from the cities. Structures in suburban communities are often lower and farther apart than in cities. Though they have smaller populations than cities, suburbs offer the same services including schools, health care facilities, and public works.

Rural areas have large amounts of land with significantly lower populations than urban or suburban areas. Structures are often far apart and some rural communities share hospitals or schools. Rural areas tend to be far from urban areas. When many students think of rural areas, they think of farmland. However, people live in woodland forests, plains, deserts, and prairies, which are examples of rural areas.

HABITATION AREAS: analyze the island's **biomes** and determine the most probable **urban, suburban, and rural areas**. **Cut out the necessary stamps** below and glue to the **island map** on the **next page**.





HABITATION AREAS: lightly color the land and water forms then determine the most probable urban, suburban, and rural areas.

ISLAND PHYSICAL AND POLITICAL POSTER MAP LEGEND 14

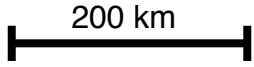
STEPS: 1. lines of latitude & longitude 2. island coastline 3. elevation 4. land/water legend items 5. remaining legend items



compass



highway



scale



tollway



national boundary line



airport



national capital



pipeline

elevation



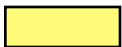
railway



0 - 1,500 feet



recreation area



1,500 - 3,000 feet



port, ferry point



3,000 - 4,500 feet



tourist attraction

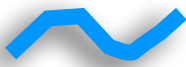


above 4,500 feet



lake

populated places/cities



river



1,000 people



forest



1,000-5,000



mountain(s)



5,000-10,000



grassland



10,000-30,000



desert



30,000-50,000



50,000-100,000



100,000-500,000



500,000-1,000,000



1,000,000 + people

ISLAND PHYSICAL AND POLITICAL POSTER MAP ICONS

