You and Our Home Planet Curriculum Map

Grade k-1

Earth's Materials

Topic: **Properties of soil and water**

Content Statements

1) Water and soil have physical properties.
2) Rocks and soil can be sorted and classified.
3) Air is a nonliving resource that circles and moves around the Earth.
4) Shadows result when the sun's rays are blocked.
5) Scientists conduct tests called experiments to learn about water..
6) Information can be recorded using words and numbers.
7) Rulers and meter sticks can be used to estimate the size of earth's materials.
8) Scales can be used to weigh earth's materials.

Key terms: rock, soil, water, solid, liquid, geologist, ruler (centimeter, meter), scale (grams)

hp	em	3	20	12	k1

Earth's Systems

Topic: Changes on Earth

Content Statements

1) Everyone, everywhere on Earth experiences day and night (short-term change).
2) Everyone, everywhere on Earth experiences seasons (long-term change). Seasons are patterns of change in weather conditions.
3) Plants and animals need protection during short- and long- term changes.
4) Weather is not the same every day, nor is it the same in every location.
5) Plants and animals adapt to the weather conditions in which they live.

Key terms: day, night, fall, winter, spring, summer, adapt, hibernate

hp	se	3	20	12	k1

Weather

Topic: Air all around

Content Statements

1) The air can be observed and felt.
2) Sunlight can be observed and felt.
3) There are ways to define short- and long-term weather conditions.
4) Wind, temperature, and precipitation can be recorded and tracked on a chart to find patterns.
5) Some instruments can be used to explain the interactions of the Sun and air (thermometer, windsock, weather vane, rain barrel, etc.)

Key terms: weather, air, sunlight, temperature, thermometer, wind, windsock, weather vane, precipitation, and other weather words

hp	we	3	20	12	k1

Global Awareness

Topic: Maps as models

Content Statements

1) Use relative location to describe position.
2) Maps represent areas on earth's surface.
3) Maps can be used to locate and identify places in the neighborhood.
4) 4) The earth is made up of regions that have special characteristics

Key terms: landmark, map, left, right, up, down, key, symbol
Biomes: forest, jungle, prairie, farm, city

hp	en	3	20	12	k1

Populations & Cultures

Topic: Describing Places

Content Statements

1) Places have physical features that make them very different from other locations.
2) A place can be described using natural or man-made features.
3) People are all very different. Observing differences and being able to appreciate diversity.
4) The world is made up of many populations of people, lands, and ideas.

Key terms: farm, city, town, lake, river, hill, mountain, forest, population, custom, culture, tradition

hp	po	3	20	12	k1

Earth's Resources

Topic: Interact with the Environment

Content Statements

1) People depend on the physical environment for food, clothing, shelter, transportation and recreation.
2) Humans impact the physical environment when they use Earth's resources to meet their needs.
3) There are ways to protect and preserve Earth's resources to help them last longer.

Key terms: natural resources, shelter, wants, needs, reduce, reuse, recycle

hp	re	3	20	12	k1

You and Our Home Planet Curriculum Map

Grade 2

Earth's Materials

Topic: Properties of air & water

Content Statements

1) Air can be described in terms of speed and direction.
2) Air has mass and takes up space (volume).
3) Water is present in the air (clouds, steam, fog, etc.)
4) Scientific reasoning occurs as we make hypotheses using information we know.
5) Charts and graphs are helpful for finding patterns.
6) Thermometers, anemometers, barometers, and other devices are used to tell us about the properties of air.

Key terms: air, miles per hour, mass, volume, cloud, steam, fog

hp	em	3	20	12	2

Earth's Systems

Topic: The Atmosphere

Content Statements

1) The air is Earth's atmosphere and it contains water which changes forms.
2) The reason for seasons has to do with Earth's position (and tilt) in relation to the Sun.
3) The reason for day and night has to do with Earth's rotation on its axis.
4) Because the Earth is spinning and rotating, not everyone experiences the same times and seasons at once.

There are forces on earth that interact that can cause changes to the atmosphere and the landscape.

Key terms: atmosphere, rotate, revolve, tilt, season, energy, force, gravity, meteorologist

hp	se	3	20	12	2

Weather

Topic: Water is in the Air

Content Statements

1) The Sun is a source of energy on Earth.
2) The Sun transfers its energy to power the water cycle.
3) There are short-term and long term weather conditions that have lasting impacts on the environment (moves rocks, wears them down, etc.)
4) Instruments are used to measure weather and track changes to Earth's surface.
5) There are mild forms of weather and more severe forms of weather

Key terms: energy transfer, water cycle, cloud, thunderstorm, and other weather words; (NOTE: *The emphasis should be on concepts, not vocabulary terms.*)

hp	we	3	20	12	2

Global Awareness

Topic: Maps as Tools

Content Statements

1) Map symbols are used to show earth's features and a map key explains these symbols.
2) Earth's surface has different landforms. Maps can show these features.
3) There are landforms on earth that are distinctive of a region.
4) Earth is divided into regions (biomes) that have unique plants and animals.

Key terms: map key, symbol, continents, oceans, terrain, landform, plateau, island, hill, mountain, valley, creek, pond, lake
Biomes: mountains, plains, grassland, rainforest, desert

hp	en	3	20	12	2

Populations & Cultures

Topic: Human vs. Physical Features

Content Statements

1) The work that people have to do is impacted by both human and physical characteristics of an area.
2) People move from place to place spreading their cultures and beliefs.
3) People all over the world interact with one another as we share cultures and ideas.

Key terms: human characteristics: population distribution, language and religions of the area
physical characteristics: landforms, climate, soil

hp	po	3	20	12	2

Earth's Resources

Topic: Change the Environment

Content Statements

1) Some resources are natural resources while others are man-made.
2) Humans modify the land so it will meet their needs. This brings about some changes that are positive and some that are negative.
3) Humans are responsible for taking care of the environment.

Key terms: natural resources, worm, compost bin, rain barrel, preserve, conserve, reduce, reuse, recycle

hp	re	3	20	12	2

You and Our Home Planet Curriculum Map

Grade 3

Earth's Materials

Topic: Properties of Rocks and Soil

Content Statements

1) Rocks and soils are made up of individual pieces of rocks, organic material, water, and air (matter).
2) Rocks and soils have unique characteristics and properties which can be used to determine where they can be found and how they can be used.
3) Many of earth's resources can be used for the energy they contain.
4) Information that is discovered through experimentation and research should be organized and recorded in order to support our claims.
5) We use tools to determine time, mass, and volume, but sometimes when tools are not available, scientists use estimates.
6) Tools and technology can be used to describe conditions and changes in rocks and soil.

Key terms: rock, mineral, grain, pattern, texture, mass, composition, organic, dichotomous key, sediment tube

hp	em	3	20	12	3

Earth's Systems

Topic: Earth in Motion

Content Statements

1) An apple can be a model for the Earth and its structure.
2) Many of Earth's resources can be used for the energy properties that they contain. (water, air, rock, soil) (i.e., some rocks contain a magnetic energy as well as being useful as conductors or insulators)
3) Renewable energy is an energy that can be replenished in a short amount of time.
4) Non-renewable energy is an energy resource that has a finite amount available that cannot be replenished easily.
5) Technologies have been developed to help humans test energy sources and provide information for how to reduce, recycle, and conserve energy.

Key terms: crust, mantle, inner core, outer core, fossil fuels, wind energy, solar energy, thermal energy cartographer, surveyor

hp	se	3	20	12	3

Weather

Topic: The Water Cycle

Content Statements

1) Earth's water is constantly moving and changing states.
2) Water has three states of matter: solid, liquid and gas. (The concept of water vapor is being introduced for the first time.)
3) Precipitation, infiltration, evaporation and condensation are the stages of the water cycle (or hydrologic cycle).
4) Water is being stored throughout this cycle in many forms.

Key terms: water cycle: precipitation, infiltration, evaporation, condensation, fresh, salt water, permafrost, glacier

hp	we	3	20	12	3

You and Our Home Planet Curriculum Map

Grade 3

Global Awareness

Topic: Maps Show Earth's Features

Content Statements

1) Relative locations on a map use cardinal directions (NSEW)
2) Absolute locations on a map include a letter and numeral (alphanumeric) description.
3) Physical and political maps are used for different reasons.
4) Countries are divided into smaller regions. In the United States these regions are called countries.
5) There are landforms on earth that are distinctive of a region. Landforms are often the result of climate and weather.

Key terms: physical map, political map, north, south, east, west, gridlines, geomorphology, landforms (landform vocab: plateau, island, hill, mountain, valley, canyon, cave, etc.)

Biomes: grassland, prairie, chaparral, temperate forests, tropical rainforest, temperate rainforest

hp	**en**	**3**	**20**	**12**	**3**

Populations & Cultures

Topic: Moving People and Ideas

Content Statements

1) Artifacts are used to make inferences about a community's lifestyle.
2) Transportation moves people and products from place to place, and communication moves ideas.
3) People from other countries have moved to the United States. When they arrive they bring customs, beliefs, and their ideas which impact our nation.

Key terms: immigration, migration artifact, inference, lifestyle, transportation, communication, population, manufacturing, agriculture, trade, construction

hp	**po**	**3**	**20**	**12**	**3**

Earth's Resources

Topic: Environments That Change

Content Statements

1) The Earth has living and non-living resources that are used to provide energy. Some of Earth's resources are limited (coal and oil).
2) There are many changes that occur in the environment as it becomes populated. As humans move in they must take precautions to protect the animals, the vegetation, and the land.
3) Humans develop technologies that are designed to preserve the environment and its energy.

Key terms: natural resources, species, endangered species, solar energy, wind energy, geothermal energy

hp	**re**	**3**	**20**	**12**	**3**

You and Our Home Planet Curriculum Map

Grade 4	Earth's Materials	Earth's Systems	Weather
	Topic: Earth's Systems **Content Statements** 1) 70% of the Earth is water. 2) Rocks change size and shape due to earth's processes. The characteristics of the rock impacts how much change occurs. 3) Fossils provide a point in time where we can learn about past events. 4) Scientists use scientific journals, research, and experimentation as a basis for hypotheses and future research. 5) Units in science are usually converted into metric units. 6) Line plots and graphs are excellent visuals for data that is collected. 7) Scientists use technology to work collaboratively to better understand earth's materials and systems. **Key terms:** sink hole, cave, prehistoric, era, period, dinosaur, trilobite, (etc.) mold fossil, cast fossil, trace fossil, preserve, petrification, replacement	**Topic: Earth's Systems** **Content Statements** 1) There are four earth systems: the geosphere, the biosphere, the hydrosphere, and the atmosphere which have cycles that interact to keep our planet in balance. 2) Waves, wind, water, and ice shape and reshape Earth's land surface. Some changes are due to slow processes, such as weathering and erosion. Some are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes. 3) Gravity impacts movement of rocks, water, and soil and landforms are created. **Key terms:** geosphere, lithosphere, biosphere, hydrosphere, atmosphere, destructive & constructive forces, gravity, erosion, weathering, catastrophic events	**Topic: Weathering & Erosion** **Content Statements** 1) Climate impacts the rate at which weathering and erosion occur and the shape of earth's surface. 2) The total amount of matter is conserved when it undergoes a change. 3) Heating and cooling changes the state of matter (even rocks) gradually or quickly. 4) The clouds can be used to forecast the weather. 5) Weather satellites are useful for predicting the weather and spotting storms. **Key terms:** climate, conservation of matter, atmosphere, forecast, clouds and precipitation, satellite, weather station
	hp em 3 20 12 4	**hp se 3 20 12 4**	**hp we 3 20 12 4**

You and Our Home Planet Curriculum Map

Grade 4

Global Awareness	Populations & Cultures	Earth's Resources
Topic: Political/Physical Maps **Content Statements** 1) Locate human and physical characteristics using relative locations on a map (NE, NW, SE, SW). 2) Map scales indicate the distance from point A to point B. 3) Political maps show countries divided into smaller regions that have capital cities. 4) Physical maps show how the landscape changes from one place to another. **Key terms:** physical map, political map, absolute and relative directions, cardinal directions, NE, SE, NW, SW; map scale, landforms (landform vocab: glacier, gulf, isthmus, marsh, peninsula, delta, dune, etc.) **Biomes:** Arctic, subarctic, tundra, taiga, chaparral, desert	**Topic: Populations Grow** **Content Statements** 1) The characteristics of an area determine the products it can produce and export. This has an impact on the jobs that are available in a region and the skill level of the population. 2) People around the world have characteristics that make them unique. Americans, too, have unique characteristics. 3) Each region of people has their own culture. Cultures include artistic expression, music, literature, beliefs, and stories. **Key terms:** immigration, migration artistic expression, literature, philosophy, inference, lifestyles, production, export, population density, population distribution, expansion	**Topic: Consequences of Growth** **Content Statements** 1) Growth, distribution, and movement of people drive human and physical events. 2) There are many changes that occur in the environment as it becomes populated. As humans move in they must take precautions to protect the animals, the vegetation, and the land. 3) Many things happen in a watershed that affect the quality of the water on which plants, animals, and humans rely. **Key terms:** groundwater, watershed, solar power, geothermal, wind power, irrigation systems, canal, dam, extinct

hp	**en**	**3**	**20**	**12**	**4**	**hp**	**po**	**3**	**20**	**12**	**4**	**hp**	**re**	**3**	**20**	**12**	**4**

You and Our Home Planet Curriculum Map

Grade 5

Earth's Materials	Earth's Systems	Weather
Topic: Earth's Composition **Content Statements** 1) Earth is a planet in the solar system. Its composition is unique. An apple model can be used to describe Earth's structure. 2) Earth is comprised of 70% water though not all of it is usable. 3) Earth's materials determine how they will be used. 4) Some distances are so great scientists have created a special numerical system to use to measure them. 5) Accurate recordkeeping requires that records of investigations are kept and are not altered later. 6) People use computers, cameras, and recording devices as a means to better understand earth's composition and processes. **Key terms:** solar system, planet, model, potable water, measurements, including light year and scientific notation	**Topic: Earth's Patterns** **Content Statements** 1) There are predictable patterns that occur on Earth. 2) The hydrologic cycle (water cycle) is powered by energy that originates from the Sun. 3) Forces such as magnetism and gravity impact how objects move and interact on Earth. 4) Knowing and understanding Earth's patterns allows us to predict events (i.e., climate change, geological change, etc.) 5) Earth's position and motion impacts Earth's processes such as the weather and tides. **Key terms:** hydrosphere, hydrologic cycle, earthquake, volcano, magnetism, gravity, tides	**Topic: The Hydrologic Cycle** **Content Statements** 1) The hydrologic cycle is another name for the water cycle. 2) The hydrologic cycle impacts weather around the world. 3) Seasons occur because of the Earth's tilt and revolution around the Sun. Seasons around the world are represented at different times and do not have the same climate. 4) The position on earth (relative to land and water masses, altitude, and topography) and the interaction of Earth systems (winds, ocean currents, cyclonic storms) determine climate. **Key terms:** hydrologic cycle, precipitation, condensation, evaporation, monsoon, rainy season, dry season, Doppler Radar
hp **em** **3** **20** **12** **5**	**hp** **se** **3** **20** **12** **5**	**hp** **we** **3** **20** **12** **5**

You and Our Home Planet Curriculum Map

Grade 5

Global Awareness

Topic: Globes and Images

Content Statements

1) Globes, satellite images, and aerial photographs provide information about places.
2) The way that the model is used impacts the way that a cartographer presents the information on a map.
3) Latitude and longitude lines enable people to make inferences about climate and landforms.
4) Earth is divided into regions called biomes. The vegetation and animal life of biomes have distinctive characteristics.
5) The Americas have some similarities and differences. The beliefs and cultures of North, South, & Central America have influenced the world.
6) Biomes of the Americas include: the tundra and taiga, coniferous forest, temperate and tropical rainforests, small deserts, grasslands

Key terms: cartographer, latitude lines, longitude lines, location, climate, equator, prime meridian, North/South Pole, Arctic/Antarctic Circle

hp	**en**	**3**	**20**	**12**	**5**

Populations & Cultures

Topic: Cultures of the Americas

Content Statements

1) Regions have human constructs that are used to organize the Earth's surface based on shared characteristics.
2) There are political, environmental, social and economic factors cause movement of people, products and ideas.
3) Human systems create cultures which include beliefs, languages, social relationships, institutions, artistic expression and material goods (food, clothing, buildings).
4) Human activities develop in response to the characteristics of the physical environment. People may need to adapt or modify these characteristics if they want to remain in the area.
5) The Indians of North and South America formed hundreds of tribes with diverse cultures and beliefs

Key terms: region, Indian cultures of North America, South America, and Central America

hp	**po**	**3**	**20**	**12**	**5**

Earth's Resources

Topic: Humans & the Environment

Content Statements

1) Humans adapt and modify the environment in order to survive and thrive.
2) Humans have impacted the Earth since Prehistoric time
3) Humans create and adapt products to protect the environment and conserve earth's resources.
4) Some modifications to the environment are good, while others may be detrimental.
5) Some issues facing the world today are the result of unintended consequences of human activities.

Key terms: urbanization, natural habitat, pollution, global warming, acid rain, ozone depletion, toxic air pollutants

hp	**re**	**3**	**20**	**12**	**5**

You and Our Home Planet Curriculum Map

Grade 6

Earth's Materials	Earth's Systems	Weather
Topic: Earth's Materials **Content Statements** 1) Rocks are made up of one or more minerals. Minerals have unique characteristics. 2) Rocks are formed in different ways (fire, pressure, sediments). 3) The earth's crust is composed of layers called horizons. 4) Rocks, minerals, and soils have common and practical uses based on their properties. 5) Chemicals and tools found in the lab can be used to better understand rocks and soil. 6) Digital tools are a means to better understand rocks and soil. **Key terms:** rock, mineral, hardness, luster, streak, Moh's hardness scale, breakage, effervescence, specific gravity, volume, surface area, soil horizons	**Topic: The Rock Cycle** **Content Statements** 1) Earth's surface characteristics change in predictable ways. 2) Water causes change to earth's surface. Water flows through rocks and soil at different rates. 3) There are three types of rocks whose formation occurs in predictable ways. A rock cycle explanation is utilized. 4) Heat from Earth's interior is the source of energy that drives the rock cycle. 5) Heating and cooling changes the state of matter (even rocks). 6) Earth experiences natural disasters, such as earthquakes and floods, and man-made disasters such as fires and ore stripping. **Key terms**: metamorphic, sedimentary, igneous, volcano, magma, lava, etc., rock cycle, convection, crust, mantle, inner core, outer core, natural disaster, man-made disaster, strip mining	**Topic: Erosion and Weathering** **Content Statements** 1) Weather changes erosion and deposition patterns. 2) Erosion occurs when earth's materials change location. 3) Mechanical weathering and chemical weathering occurs when earth's materials are worn down, but stay in place. 4) As sediments are broken off and float or fall away, they continue to be worn down as they are sorted through natural processes. **Key terms:** erosion, chemical weathering (oxidation, hydrolysis, acid), mechanical weathering (frost action, plant action, abrasion) sediments, horizontal and vertical sorting, gravity, landslide, deposition, arch, cave, butte, delta, etc.
hp em 3 20 12 6	**hp se 3 20 12 6**	**hp we 3 20 12 6**

You and Our Home Planet Curriculum Map

Grade 6

Global Awareness

Topic: Regional Features

Content Statements

1) Topographical maps and aerial maps tell us a great deal about the earth's surface.
2) Population maps describe where groups of people live.
3) Globes and other geographic tools can be used to gather, process, and report information about people, places, and environments.
3) The earth is divided into regions with distinctive features (landforms, climate, etc.). Position on the globe and earth's processes influence these features.
4) The areas in the Eastern Hemisphere have some similarities and differences. The beliefs and cultures of the East have influenced the world.
5) Biomes of the Eastern Hemisphere include: tropical and temperate rainforest, desert, grasslands and chaparral, the savanna

Key terms: latitude, longitude, absolute location, relative location, topographical map, aerial map, landform, and landform terminology, climate

hp	**en**	**3**	**20**	**12**	**6**

Populations & Cultures

Topic: Eastern Hemisphere Cultures

Content Statements

1) Humans live in communities and adapt in order to survive and thrive.
2) People, products, and ideas move from place to place for political, environmental, social, and economic reasons.
3) As people move about they will influence the culture of the region to which they travel.
4) Modern cultural practices and products show the influence and diffusion of traditions and beliefs, including language and religion.
5) Trade offers an explanation for why populations grow and how they expand.

Key terms: human systems, culture, population, economic, politics, language, Buddhism, Hinduism, Islam, and Judaism, Egypt, China, India, Mesopotamia

hp	**po**	**3**	**20**	**12**	**6**

Earth's Resources

Topic: Clean Energy

Content Statements

1) Humans create and adapt products to protect the environment and conserve earth's resources.
2) Some organisms that once lived on Earth have disappeared, although similar organisms still exist today.
3) Humans need energy. Many of the processes developed to create energy do not use the earth's natural resources wisely, i.e., strip mining, burning coal, car exhaust, etc.

Key terms: endangered species, strip mining, pollution, global warming

hp	**re**	**3**	**20**	**12**	**6**

You and Our Home Planet Curriculum Map

Grade 7

Earth's Materials	Earth's Systems	Weather
Topic: Landforms: Land & Sea **Content Statements** 1) The atmosphere, like the earth, has multiple layers with unique characteristics at various heights. 2) The ocean floor topography is similar to the surface that is not below water. 3) The sun is a major source of energy for wind, air, and ocean currents. As thermal energy transfers occur in the air and ocean, currents form. 4) The sun drives the movement of the tides. Digital tools are utilized to make inferences about earth's surface and the processes that occur. **Key terms:** stratosphere, mesosphere, thermosphere, troposphere, convergent boundary, divergent boundary, transform fault boundary, sea floor spreading, kinetic, potential energy, topography	**Topic: Biogeochemical Cycles** **Content Statements** 1) Carbon is one of the elements that cycle through nature. The Carbon Cycle is one of the biogeochemical cycles. 2) Nitrogen is the most common gas found in the earth's atmosphere. It is necessary for plant growth and the survival of all ecosystems. The nitrogen Cycle is another one of the biogeochemical cycles. 3) Oxygen gas is essential for life. Green plants are key to keeping the oxygen cycle going. 4) Water changes states as it moves through the lithosphere, biosphere, hydrosphere, and atmosphere. 5) Energy is transferred or transformed, but is never lost. **Key terms:** carbon cycle, fossil fuel, respiration, photosynthesis, nitrogen cycle, nitrate, nitrite, ammonia, lithosphere, biosphere, hydrosphere, atmosphere, energy transformation	**Topic: Powered by the Sun** **Content Statements** 1) Thermal energy transforms in the ocean causing currents and waves. 2) The atmosphere moves in currents that are powered by the sun. 3) Global climate patterns are predictable and impact daily weather. 4) Clouds have a cyclic pattern of formation and can be "read" to aid in weather forecasts. **Key terms:** cirrus, stratus, cumulus clouds, stratosphere, solar radiation, turbulence, jet stream, polar, mid-latitude, and Hadley cells, trade winds, westerlies, southeasterly trade winds, westerly trade wind, high pressure, low pressure

hp	**em**	**3**	**20**	**12**	**7**	**hp**	**se**	**3**	**20**	**12**	**7**	**hp**	**we**	**3**	**20**	**12**	**7**

You and Our Home Planet Curriculum Map

Grade 7

Global Awareness	Populations & Cultures	Earth's Resources
Topic: Regional Features **Content Statements** 1) Maps, aerial photographs, satellite produced imagery, and geographic information systems (GIS) can be used to show special relationships and to explain how settlements change over time. 2) Remote Sensing (RS) devices are used to learn more about the patterns of earth's materials and earth's resources. 3) Countries are divided into smaller regions that have distinctive characteristics. 4) The areas in the Western Hemisphere have some similarities and differences. The beliefs and cultures of the West have influenced the world. 5) Biomes of the western hemisphere include deserts, grasslands, chaparrals, mountains, temperate and deciduous forests, the tundra and taiga 6) Aquatic biomes are unique and diverse. **Key terms:** global positioning systems, remote sensing device, computer-based information system, coastal areas	**Topic: Western Hemisphere Cultures** **Content Statements** 1) Geographic factors promote or impede the movement of people, products, or ideas. 2) The advances and cultures of previous generations can be seen in the beliefs, cultures, and traditions today. 3) Trade routes connecting Africa, Europe, and Asia fostered the spread of technology and major world religions. 4) Improvements in transportation, communication, and technology have encouraged cultural diffusion among peoples around the world. 5) As cultures clash, people must learn to respect one another. Promoting peace talks and peaceful alternatives is preferable to war. 6) Data from random samples of populations can be used to make inferences and comparisons about the whole. **Key terms:** cultural diffusion, Christianity, Catholic church, Enlightenment and Reformation, Renaissance	**Topic: Oceans for Survival** **Content Statements** 1) Our lives require healthy oceans for oxygen, food, jobs, medicines and more. 2) The cleanliness and health of the ocean impacts our lives. 3) Conservation of the plants and animals of the sea is the responsibility of everyone, even those who do not live on the coast. 4) Some activities being done on and around the ocean are creating problems that will have unintended consequences for years to come. **Key terms:** coastal development, fisheries, aquarium, salmon run, sea life conservation, carbon footprint, exploited marine lie, aquaculture, poaching, industry, "hard" water, salty water, purifier, oil spill, hydropower, dam
hp **en** **3** **20** **12** **7**	**hp** **po** **3** **20** **12** **7**	**hp** **re** **3** **20** **12** **7**

You and Our Home Planet Curriculum Map

Grade 8

Earth's Materials

Topic: Inside Earth

Content Statements

1) The earth in constantly in motion. Earthquakes crack and bend the earth's surface.
2) The earth has multiple layers. As the earth's core is approached, the layers become more compacted and the heat becomes intense. The core of the earth is a solid piece of iron.
3) Forces on earth can act with or without direct contact.
4) Earth can be related to a gigantic puzzle. Earth's surface is composed of major and minor tectonic plates.
5) Rocks and rock layer composition record a story of events and can be used to track their dates (radioactive decay)

Key terms: seismograph, seismic waves, convection, conduction, p-waves, s-waves, o-waves, core, crust, mantle, inner core, outer core, transposition, carbon/radioactive dating

hp	em	3	20	12	8

Earth's Systems

Topic: Earth's Forces at Work

Content Statements

1) Earth's has a magnetic core that creates a magnetic force field.
2) There are constructive and destructive processes that form Earth's surface.
3) Formation of planet generated by heat from gravitational energy and decay or radioactive elements.
4) Heat drives convection inside earth which gives rise to seismic waves and volcanic activity on earth's surface.
5) Evidence of the dynamic changes in earth's surface through time are represented in the geologic record.

Key terms: Earth's magnetic core, constructive forces, destructive forces, radioactive decay, convection currents, the faults and their actions, seismic waves (p-waves, s-waves), volcano, magma, lava

hp	se	3	20	12	8

Weather

Topic: Weather Forecasting

Content Statements

1) The sun is the source of the energy cycle that drives weather.
2) Weather can be predicted and forecasted to guide decision making.
3) Weather forecasting has its own vocabulary and coding system that provides a connection among meteorologists.
4) The ocean and the atmosphere interact to create weather systems.

Key terms: weather station symbols, sea level, dew point, cloud cover, high/low pressure system, warm /cold front, stationary, occluded front, weather satellite, radar, Doppler Radar Clouds have a cyclic pattern of formation and can be "read" to aid in weather forecasts

hp	we	3	20	12	8

You and Our Home Planet Curriculum Map

Grade 8

Global Awareness	Populations & Cultures	Earth's Resources
Topic: Geography & History	**Topic: United States Cultures**	**Topic: Protect and Preserve**
Content Statements 1) Maps and other positioning systems can be used to analyze how historic events are shaped by geography. 2) Global Positioning Systems (GPS) devices are used to learn more about an environment and can be used for navigation. 3) The areas in the United States have some similarities and differences. The beliefs and cultures of the U.S. have influenced the world. 4) The major land biomes of the United States are tundra, coniferous forest, deciduous forest, tropical rain forest, grassland, and desert. 5) Aquatic biomes are an important factor in shaping the culture of coastal regions.	**Content Statements** 1) The movement of people, products, and ideas result in new patterns of settlement and land use that influence political and economic development. 2) Cultural biases, stereotypes and prejudices had social, political, and economic consequences for minority groups and the populations as a whole. 3) Americans began to develop a common national identity among its diverse regional and cultural populations based on democratic ideals. 4) Cultures reside in pockets throughout the United States, but they also converge to create a rich cultural experience.	**Content Statements** 1) The availability of natural resources contributes to geographic and economic expansion. 2) Many government agencies have been established that are dedicated to the preservation of wildlife and the environment. 3) U.S. businesses are held responsible for the care and preservation of the land they have been allotted. 4) US citizens must be informed and do what they can to reduce, reuse, and recycle natural resources.
Key terms: satellite positioning systems; global positioning system, navigation, biome, deciduous, tropical, & coniferous forests, grassland, desert	**Key terms:** melting pot, salad bowl, diversity, pluralism, immigrant, green card, naturalization, stereotype, western culture, cuisine, dialect	**Key terms:** extinction, ozone, greenhouse gas, acid rain, USDA, US Fish and Wildlife service, Energy conservation, national parks, NOAA, etc
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