



6TH

Strand	Title	Standard	Skill	Guiding Question	Vocabulary
EARTH AND SPACE	As the Wind Blows	TEKS 6.7A NGSS MS-ETS1-1	Describe the advantages of wind energy	How can wind provide a more sustainable energy source for a community?	<ul style="list-style-type: none"> • wind energy • sustainable
	Changing Phases	TEKS 6.11A NGSS MS-ESS1-1	Explain how the positions of the Earth, Sun and Moon create the changes in the Moon's appearances	How does the position of the Earth, Moon and Sun create the different moon phases?	<ul style="list-style-type: none"> • moon • phases
	Cool Comets	TEKS 6.11A NGSS MS-ESS1-3	Explore the physical properties of a comet	What is a comet made of?	<ul style="list-style-type: none"> • comet
	Gravity Rules	TEKS 6.11B NGSS MS-ESS1-2	Explain how gravity controls the motion of objects on Earth and in space	How do gravitational forces affect planets?	<ul style="list-style-type: none"> • gravity
	Journey into the Earth	TEKS 6.10A NGSS MS-ESS2-A	Investigate the inner core layer of the Earth and the significance of the way it spins	What is the inner core layer of Earth and why has it reversed the way it spins?	<ul style="list-style-type: none"> • inner core
	Mission Complete	TEKS 6.11A NGSS MS-ETS1-4	Describe the properties, location, and movements of asteroids	How can scientists use a spacecraft to redirect an asteroid?	<ul style="list-style-type: none"> • asteroid • redirect
	Rock Out	TEKS 6.10B NGSS MS-ESS2-1	Classify rocks as metamorphic, igneous, or sedimentary	How does the rock formation process determine how a rock will look?	<ul style="list-style-type: none"> • igneous • metamorphic • sedimentary
	Rumble and Tumble	TEKS 6.10D NGSS MS-ETS1-4	Describe how plate tectonics cause earthquakes	What types of movements in Earth's tectonic plates cause earthquakes?	<ul style="list-style-type: none"> • plate tectonics • fault lines

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EARTH AND SPACE	Space Scouts	TEKS 6.11C NGSS MS-ESS1-3	Describe what equipment will be used to travel to space in the future	What types of equipment and transportation will future space explorers use?	<ul style="list-style-type: none"> planet astronaut physical properties
	A Robot's Potential	TEKS 6.8A NGSS MS-PS3-2	Code a robot to demonstrate potential and kinetic energy	How can you code a robot to demonstrate the use of potential and kinetic energy?	<ul style="list-style-type: none"> potential energy kinetic energy
FORCE, MOTION, AND ENERGY	Damage Control	TEKS 6.3A NGSS MS-PS1-1	Analyze explanations using reasoning and testing	Can a dam made out of earth materials, like dirt and rock, successfully hold back water?	<ul style="list-style-type: none"> earth dam properties
	Dangerous Energy	TEKS 6.9C NGSS MS-PS3-4	Demonstrate the dangers of energy transformations	How can energy transformations be dangerous?	<ul style="list-style-type: none"> circuit energy hazard
	First in Flight	TEKS 6.2A NGSS MS-PS2-3	Complete an investigation by making observations, asking questions, and using technology	How did the Wright brothers' first successful flying machine influence modern aircrafts?	<ul style="list-style-type: none"> aircraft
	How Fast is that Plane Going?	TEKS 6.8C & 6.8D	Estimate the speed of a flying object at different distances	How does your perception of airspeed change as an object moves farther away?	<ul style="list-style-type: none"> average speed distance perception altitude airspeed
	Ice Cream Meltdown	TEKS 6.9A NGSS MS-PS3-3	Investigate the movement of thermal energy from warm to cold areas	How can the flow of thermal energy be lessened to protect items that are cold?	<ul style="list-style-type: none"> thermal energy
	It's Electric	TEKS 6.9C NGSS MS-PS3-4	Demonstrate how energy is transformed from one form into another	How can energy be transformed?	<ul style="list-style-type: none"> electricity transfer
	Might as Well Jump	TEKS 6.8A NGSS MS-PS3-5	Investigate kinetic and potential energy	How is energy transformed from potential to kinetic?	<ul style="list-style-type: none"> kinetic energy potential energy energy transformation
	Out of My Way	TEKS 6.8B NGSS MS-PS2-2	Describe how an object changes position, direction, and speed when acted upon by unbalanced forces	How do unbalanced forces affect an object?	<ul style="list-style-type: none"> unbalanced forces position direction speed

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FORCE, MOTION, AND ENERGY	Overcoming Obstacles	TEKS 6.8B NGSS MS-PS2-2	Model changes in motion due to unbalanced forces	How can unbalanced forces produce changes in motion?	<ul style="list-style-type: none"> unbalanced force net force motion freerunning parkour
	Pointy Science	TEKS 6.3A NGSS MS-ETS1-4	Plan an investigation by making observations and asking questions	How does surface area affect pressure?	<ul style="list-style-type: none"> pressure surface area force
	Side to Side	TEKS 6.3B NGSS MS-ETS1-4	Use models to represent aspects of the natural world	What are the benefits and drawbacks of a switchback trail?	<ul style="list-style-type: none"> switchback
MATTER AND ENERGY	Aging Fruit	TEKS 6.5C NGSS MS-PS1-2	Identify clues that a chemical reaction has occurred	How do you know if a chemical reaction is occurring?	<ul style="list-style-type: none"> chemical reaction reactant product
	Blood Falls	TEKS 6.5C NGSS MS-PS1-2	Identify the formation of a new substance by using the evidence of a possible chemical change	What evidence indicates that a new substance has been formed?	<ul style="list-style-type: none"> chemical change substance
	Coding for Density	TEKS 6.6B NGSS MS-PS1-2 & MS-PS1-4	Explain how the density of a liquid affects how objects move in that liquid	How does the density of a liquid affect how an object moves through that liquid?	<ul style="list-style-type: none"> density
	Strike!	TEKS 6.6A NGSS MS-PS1-1	Classify metals and nonmetals based on conductivity	How is conductivity used to classify elements into metals and nonmetals?	<ul style="list-style-type: none"> metals nonmetals elements conductivity
	Symbols in Flight	TEKS 6.5A NGSS MS-ETS1-4	Represent elements by their chemical symbols	What chemical symbols are used to represent the elements on the periodic table?	<ul style="list-style-type: none"> chemical symbol element

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MATTER AND ENERGY	The Perfect Lighting	TEKS 6.2A NGSS MS-ETS1-2	Carry out an investigation by making observations, asking questions, and forming a hypothesis.	How does light placement affect the formation of shadows and silhouettes?	<ul style="list-style-type: none"> • silhouette
ORGANISMS AND ENVIRONMENT	Divide and Conquer	TEKS 6.12 NGSS MS-LS4-4	Identify changes in genetic traits that happen over time through natural selection	How do genetic traits change over time through natural selection?	<ul style="list-style-type: none"> • ancestor • genetic • natural selection • niche
	Is It Living?	TEKS 6.12E NGSS MS-LS2-3	Plan an investigation by making observations and asking questions	What are the abiotic and biotic factors that are important for a healthy ecosystem?	<ul style="list-style-type: none"> • abiotic factors • biotic factors
	Nucleus Knowledge	TEKS 6.12D NGSS MS-LS1-2	Determine factors that classify a cell as either prokaryotic or eukaryotic	How are prokaryotic cells different from eukaryotic cells?	<ul style="list-style-type: none"> • organism • prokaryotic • eukaryotic • organelles
	The Journey Through	TEKS 6.12E NGSS MS-LS2-A	Describe living and nonliving parts of an ecosystem and how they are related	How do living and nonliving things in an ecosystem affect each other?	<ul style="list-style-type: none"> • abiotic • biotic • ecosystem
	The Limitless Beyond	TEKS 6.11C NGSS MS-ETS1-3	Describe the history and future of space exploration	How has the purpose of space exploration changed with the continued improvement of technology?	<ul style="list-style-type: none"> • satellite • orbit • rocket
	Slowing Down	TEKS 6.4A NGSS MS-LS3-1	Describe how genes, and the function of organ systems, change with age	What happens to genes and human organ systems as they age?	<ul style="list-style-type: none"> • aging • genes • organ systems



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EARTH AND SPACE	Diamond Showers	TEKS 7.9A NGSS MS-ESS1-3	Analyze the characteristics of objects in our solar system such as the composition of the atmosphere	How does the composition of the planet Saturn result in diamond rain?	<ul style="list-style-type: none"> atmosphere composition
	Earth Below Us	TEKS 7.9B NGSS MS-ETS1-4	Model the accommodations that enable space exploration	How is space exploration possible?	<ul style="list-style-type: none"> manned space exploration accommodation enable
	Earth to Mars	TEKS 7.9A NGSS MS-ESS1-3	Analyze the characteristics of objects in the solar system	How do dust storms occur on Mars?	<ul style="list-style-type: none"> dust storm
	Erosion: Erasing Earth	TEKS 7.8B NGSS MS-ESS2-2	Analyze how weathering and erosion affect the environment	How do weathering and erosion affect the environment?	<ul style="list-style-type: none"> weathering erosion
	Hurricane Warning	TEKS 7.8A NGSS MS-ESS2-5	Explore how an individual can prepare their home for a hurricane	How can an individual prepare their home for a hurricane?	<ul style="list-style-type: none"> storms hurricane feature
	Sun On, Sun Off	TEKS 7.9A NGSS MS-ESS1-B	Analyze the characteristics of objects in our solar system	How can we create a circuit that mimics the blocking of light similar to a solar eclipse and the transit of Venus?	<ul style="list-style-type: none"> solar eclipse photoresistor transit
	Technology Meets Nature	TEKS 7.8 NGSS MS-ESS3-2	Describe how catastrophic events impact ecosystems	How do disasters impact organisms within an ecosystem?	<ul style="list-style-type: none"> ecosystem aerial view

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EARTH AND SPACE	The Dark Side	TEKS 7.3A NGSS MS-ETS1-3	Analyze scientific explanations through experimental observations and testing	How is it possible for those on Earth to only see one side of the Moon if the Moon both rotates and revolves around the Earth?	<ul style="list-style-type: none"> • rotate • revolve
	Water Washers	TEKS 7.8C NGSS MS-ESS3-3	Understand ways to conserve or restore water	How can we use robotics tools to conserve or restore water?	<ul style="list-style-type: none"> • conserve • adaptations • human impact
FORCE, MOTION, AND ENERGY	Growing Together	TEKS 7.2B NGSS MS-LS1-4	Design an experiment by making observations and asking questions	What causes the process of germination to vary among plants?	<ul style="list-style-type: none"> • germination • offspring • vivipary
	Safety First	TEKS 7.3 NGSS MS-ETS1-4	Use critical thinking and problem solving skills to make decisions	How can light solve human problems related to safety?	<ul style="list-style-type: none"> • safety hazard
	Secrets of the Circulatory System	TEKS 7.7B NGSS MS-LS1-3	Illustrate how the force of blood circulation affects organisms	How does blood circulation affect an organism?	<ul style="list-style-type: none"> • circulatory system • blood circulation
	Special Delivery	TEKS 7.2A NGSS MS-ETS1-1	Plan investigations using equipment and technology	How can using drones to make deliveries be problematic?	<ul style="list-style-type: none"> • autonomous
MATTER AND ENERGY	Name That Change	TEKS 7.6A NGSS MS-PS1-5	Determine when a physical change and a chemical change occurs	How can the same type of matter undergo both a physical and chemical change?	<ul style="list-style-type: none"> • physical change • chemical change • matter
	Plant Cell Power	TEKS 7.12D NGSS MS-LS1-6	Determine how structures within a plant cell contribute to different functions	How do structures within a plant cell contribute to it meeting its needs?	<ul style="list-style-type: none"> • organelles • chloroplast • chlorophyll
	What's for Dinner?	TEKS 7.5B NGSS MS-LS2-2	Analyze how energy flows in food chains that are present in my community	How does energy flow through the food chains that are present in my community?	<ul style="list-style-type: none"> • food chain • energy • ecosystem

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ORGANISMS AND ENVIRONMENT	A Garden of Their Own	TEKS 7.10A NGSS MS-LS2-5	Create a design solution to support organisms that provide an ecosystem service	How can organisms that provide ecosystem services be supported using different design solutions?	<ul style="list-style-type: none"> ecosystem service microhabitat pollinator
	All Together Now	TEKS 7.11B NGSS MS-LS2-1	Analyze the factors that lead to migration	Why do populations of organisms migrate to enhance their chances of survival?	<ul style="list-style-type: none"> migration organism species behavior
	Brain Jam	TEKS 7.12B NGSS MS-LS1-3	Identify the main functions of the nervous system of the human organism	How does the nervous system interpret optical illusions?	<ul style="list-style-type: none"> nervous system
	Chained Together	TEKS 7.5B NGSS MS-LS2-3	Model the flow of energy through food chains	How does energy flow through food chains?	<ul style="list-style-type: none"> food chain flow of energy
	Go With The Flow	TEKS 7.7B NGSS MS-LS1-6	Illustrate how blood circulation affects motion	How does poor circulation affect motion?	<ul style="list-style-type: none"> circulation
	How Far I'll Go	TEKS 7.2A NGSS MS-ETS1-4	Design an investigation by making observations and asking questions	How can practicing wayfinding skills improve self-navigation in the age of technology?	<ul style="list-style-type: none"> wayfinding self navigation
	Lucky to be Alive	TEKS 7.12B NGSS MS-LS1-3	Identify the main functions of the human organ systems	How does the cold affect human bodies?	<ul style="list-style-type: none"> frostbite organ systems
	Message Received	TEKS 7.13B NGSS MS-LS1-8	Describe how internal stimuli produce physical responses, such as wilting in plants	How do cells code and send messages for a physical response to an internal stimulus?	<ul style="list-style-type: none"> wilting physical response internal stimulus
	Moths in the Light	TEKS 4.10A NGSS 4-PS3-2	Describe how an organism responds to an external stimulus	How do organisms respond to an external stimulus?	<ul style="list-style-type: none"> stimulus response
	Ouch!	TEKS 7.12B NGSS MS-LS1-3	Use models to represent the natural world	How do cells aid the healing process?	<ul style="list-style-type: none"> cell regeneration skeletal system
	Pass it Down	TEKS 7.14C NGSS MS-LS4-5	Explore how traits can be inherited	What are inherited traits?	<ul style="list-style-type: none"> traits inherit

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ORGANISMS AND ENVIRONMENT	Peeking into the Digestive System	TEKS 7.12B NGSS MS-LS1-3	Explain the organs and their functions within the digestive system	What organs make up the digestive system and what are their functions?	<ul style="list-style-type: none"> digestive system organs
	Seeing Sound Waves	TEKS 7.13A NGSS MS-LS1-5	Investigate how organisms use external stimuli found in the environment to survive	How do organisms use external stimuli to survive in their environment?	<ul style="list-style-type: none"> stimuli echolocation
	Sleepy Time	TEKS 7.11B NGSS MS-LS1-4	Explain variation in hibernation practices within a species	How do variations in hibernation patterns within the same species contribute to their long term survival?	<ul style="list-style-type: none"> hibernation variation
	Speak of the Devil	TEKS 7.11B NGSS MS-LS4-4	Describe responses in organisms that result from internal stimuli	How do organisms respond to dehydration in harsh conditions such as deserts?	<ul style="list-style-type: none"> hydrated dehydrated
	The Building Blocks of Life	TEKS 7.12F NGSS MS-LS1-2	Recognize different components of cell theory	How do cells work together in order to function within an organism?	<ul style="list-style-type: none"> cells cell theory function organelles
	Warning!	TEKS 7.3B NGSS MS-ETS1-4	Use models to represent aspects of the natural world	How do plants and animals visually communicate that they are a threat to other animals?	<ul style="list-style-type: none"> predator organism aposematic coloration bioluminescence



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EARTH AND SPACE	Blocking Out the Sun	TEKS 8.7B NGSS MS-ESS1-1	Model the Earth-Sun-Moon system to describe patterns that produce eclipses	What creates a solar eclipse?	<ul style="list-style-type: none"> eclipse
	Connect the Pieces	TEKS 8.9A NGSS MS-ESS2-3	Understand Pangea by exploring plate tectonics	How did plate tectonics affect the landmass known as Pangea?	<ul style="list-style-type: none"> plate tectonics Pangea
	Cosmic Lighthouses	TEKS 8.8C NGSS MS-ESS1-3	Investigate how visible light is used to gain information about the universe	How can we use light to study neutron stars?	<ul style="list-style-type: none"> pulsars neutron star rotational
	Day and Night	TEKS 8.7A NGSS MS-ESS1-1	Model the motion of the Earth that creates the cycle of day and night	How does the motion of the Earth create daylight patterns?	<ul style="list-style-type: none"> rotation revolution
	Shifting of Earth	TEKS 8.9B NGSS MS-ESS2-2	Model plate tectonics to demonstrate how mountain ranges can form	How does the movement of Earth's plates relative to each other lead to land formations?	<ul style="list-style-type: none"> plate tectonics
	The Highs and the Lows	TEKS 8.7 NGSS MS-ESS1-1	Relate the positions of the Sun and Moon to their effect on ocean tides	Why do we experience two high tides and two low tides in a 24-hour period?	<ul style="list-style-type: none"> high tide low tide gravitational pull
	The Nature of Tides	TEKS 8.7C NGSS MS-ESS1-1	Relate the positions of the Moon and Sun to ocean tides	How do the positions of the Moon and Sun affect ocean tides?	<ul style="list-style-type: none"> tides
	The Perfect Storm	TEKS 8.10C NGSS MS-ESS3-2	Identify the role of oceans in the formation of weather systems	Why do hurricanes form over the ocean?	<ul style="list-style-type: none"> evaporation temperature
	Traveling Land	TEKS 8.9A NGSS MS-ESS2-3	Describe the evidence that supports plate tectonic theory	What evidence is there to support plate tectonic theory?	<ul style="list-style-type: none"> plate tectonic theory

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EARTH AND SPACE	View From Above	TEKS 8.9C NGSS MS-ESS2-2	Create a map that shows how changes in height can be recorded	How can the view from above an object be used to provide useful information?	<ul style="list-style-type: none"> • topographic map • elevation
	X-Ray Vision	TEKS 8.8C NGSS MS-ESS1-3	Identify different types of light that are used to explore the universe	How can different parts of the electromagnetic spectrum be used to gather information?	<ul style="list-style-type: none"> • electromagnetic spectrum • x-rays
FORCE, MOTION, AND ENERGY	Actions and Reactions	TEKS 8.6C NGSS MS-PS2-1	Investigate Newton's third law of motion	How does Newton's third law explain objects interacting with each other?	<ul style="list-style-type: none"> • law of action-reaction • force • unbalanced forces
	Amazing Robots	TEKS 8.4A NGSS MS-ETS1-4	Design and develop a process of motions to complete a maze	How can a robot maneuver through an obstacle course?	<ul style="list-style-type: none"> • iteration
	Dance Code	TEKS 8.6A NGSS MS-PS2-2	Model the motions produced by unbalanced forces	What types of motion result from unbalanced forces?	<ul style="list-style-type: none"> • unbalanced force • net force • motion
	Hold on Tight	TEKS 8.6C NGSS MS-PS2-2	Investigate the forces that are involved in Newton's three laws of motion	How does centripetal force keep objects in motion when they are upside down?	<ul style="list-style-type: none"> • inertia • centripetal force
	Illuminating Options	TEKS 8.2B NGSS MS-ETS1-4	Describe the transformation of energy such as from chemical energy to electrical energy to light energy	How do different sources of light compare?	<ul style="list-style-type: none"> • transformation • solar energy • process testing
	Launching into Newton's Laws	TEKS 8.6C NGSS MS-PS2-1	Show how action-reaction pairs are used to propel an object	How is an action-reaction pair used to launch an object through the air?	<ul style="list-style-type: none"> • action • reaction
	Tug-of-War	TEKS 8.6A NGSS MS-PS2-2	Explain the motion of an object experiencing balanced and unbalanced forces	What happens when an object experiences an unbalanced force?	<ul style="list-style-type: none"> • force • motion • balanced • unbalanced
	Weighing You Down	TEKS 8.6A NGSS MS-PS2-1	Show how forces can cause objects to change	How can structures be changed by natural phenomena?	<ul style="list-style-type: none"> • forces • structure • natural phenomena

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MATTER AND ENERGY	Caution in the Kitchen	TEKS 8.5E NGSS MS-PS1-2	Implement an investigation asking defined questions and utilizing appropriate equipment	What chemical reaction occurs between the human body and food substances to make your eyes water or hands burn?	<ul style="list-style-type: none"> chemical reaction
	Complex Sounds	TEKS 8.4A NGSS MS-PS1-1	Design and develop models of complex circuits	How do series and parallel circuits operate?	<ul style="list-style-type: none"> parallel circuit series circuit switch
	Do I Ever Get to Rest?	TEKS 8.6C NGSS MS-PS2-2	Explore Newton's First Law, also known as the Law of Inertia, through drones	How is a drone related to inertia?	<ul style="list-style-type: none"> Newton's First Law inertia
	Elemental Organizer	TEKS 8.5C NGSS MS-PS1-1	Interpret the arrangement of the periodic table	How are elements classified according to their properties in the periodic table?	<ul style="list-style-type: none"> group period periodic table
	Elements are Everywhere	TEKS 8.5C NGSS MS-PS1-3	Describe how elements can be separated by their characteristics	How are elements classified?	<ul style="list-style-type: none"> elements characteristics luster conductivity malleability
	Icy Options	TEKS 8.2A NGSS MS-ETS1-4	Plan and carry out a comparative investigation	Should sand or salt be used to decrease hazards caused by icy conditions?	<ul style="list-style-type: none"> chemical reactions molecules
	Nothing Lost, Nothing Gained	TEKS 8.5D & 8.5E NGSS MS-PS1-2	Model how the Law of Conservation of Mass applies to chemical reactions	What is the Law of Conservation of Mass?	<ul style="list-style-type: none"> chemical reaction Law of Conservation of Mass
	Shocking Atoms	TEKS 8.5A NGSS MS-PS1-1	Describe the structure of atoms including their electrical charge	How does the movement of electrons cause static electricity?	<ul style="list-style-type: none"> atom electrical charge

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ORGANISMS AND ENVIRONMENT	Darwin's Finches	TEKS 8.11B NGSS MS-LS4-4	Explain how species have adapted to their surroundings over time	How do organisms adapt to their surroundings?	<ul style="list-style-type: none"> · adapt
	Deep Dive	TEKS 8.11C NGSS MS-ESS3-3	Explain how human activities influence ocean life through the use of artificial reefs around the world	What are artificial reefs and how are they made?	<ul style="list-style-type: none"> · artificial reefs
	Fantastic Flight	TEKS 8.3B NGSS MS-ETS1-4	Use models to demonstrate different aspects of the natural world	How do hummingbirds hover?	<ul style="list-style-type: none"> · hover
	Fit to Compete	TEKS 8.11A NGSS MS-LS4-4	Investigate how unique traits help animals compete for resources to survive	What adaptations help animal species to compete for resources in their ecosystem?	<ul style="list-style-type: none"> · species · adaptation · ecosystem · rivalry
	That's Mine	TEKS 8.11A NGSS MS-LS2-2	Explore how animals have to compete for natural resources	How do animals in the same ecosystem compete for natural resources?	<ul style="list-style-type: none"> · competition · natural resources
	The Missing Piece	TEKS 8.11A NGSS MS-LS2-1	Explore how changing one factor can disrupt a species within an ecosystem	How can changing one factor within an ecosystem disrupt a species?	<ul style="list-style-type: none"> · ecosystems · disrupt · species
	What a Mess	TEKS 8.11C NGSS MS-ESS3-3	Explain how human activities have impacted ocean systems	What caused the Great Pacific Garbage Patch and how can it be cleaned up?	<ul style="list-style-type: none"> · pollution · human impact