

LOUISIANA SCIENCE STANDARDS INTRODUCED OR REINFORCED DURING TREES AND TRAILS FIELD TRIP

SCIENCE

8th Grade

*Water Purification and Groundwater Recharge are presented as part of the Wetlands Station

MATTER AND ITS INTERACTIONS

- x 8-MS-PS1-3: Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

MS.PS1B.a: Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different molecules, and these new substances have different properties from those of the reactants.

EARTH'S SYSTEMS

- x 8-MS-ESS2-1: Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.

MS.ESS2A.a: All Earth processes are the result of energy flowing and matter cycling within and among the planet's systems. This energy is derived from the sun and Earth's hot interior. The energy that flows and matter that cycles produce chemical and physical changes in Earth's materials and living organisms.

EARTH AND HUMAN ACTIVITY

- x 8-MS-ESS3-1: Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

MS.EVS1A.b: Non-renewable resources such as our state's fossil fuels are vast but limited.

- x 8-MS-ESS3-3: Apply scientific principles to design a method for monitoring and minimizing human impact on the environment.

MS.ESS3C.a: Human activities, globally and locally, have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But chan4 (t)22 (oth0)nd ur t0envoyiromatyce s.

FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES

- x 8-MS-LS1-4: Construct and use arguments(s) based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of survival and successful reproduction of animals and plants respectively. -

ACTIVITIES TO EXTEND CONCEPTUAL UNDERSTANDING OF PERFORMANCE EXPECTATIONS.

1. Investigate the interconnectedness of natural and human built parts of the Earth's system, (plants, animals, water, soil to that of oil and gas industry, agriculture, transportation, and recreation). What can we do to protect ecosystems from habitat destruction?
2. Research how El Ninos impact the carbon dioxide levels in the atmosphere?
3. In this activity, students will learn a lot about what they are throwing in the trash and ways they could either reduce, recycle, or reuse the items. Students will collect their trash while at school for one week. Trash containers should be made available in the classrooms for the following: Paper, plastic, wood, glass, food scraps, and other.
4. This website has excellent information and activities including: opinion surveys, challenge questions, determining amount of water used in a home, and quizzes about water properties and ground water. <https://water.usgs.gov/edu/msac.html>

