

NATIONAL SCIENCE EDUCATION STANDARDS

Lather Up! Hand Washing Activity Handbook

GRADE	CATEGORY	SUB-CATEGORY	STANDARD
5-8	Earth and Space Science	Structure Of The Earth System	Living organisms have played many roles in the earth system, including affecting the composition of the atmosphere, producing some types of rocks, and contributing to the weathering of rocks.
5-8	History and Nature of Science	History Of Science	In historical perspective, science has been practiced by different individuals in different cultures.
5-8	History and Nature of Science	History Of Science	Many individuals have contributed to the traditions of science.
5-8	History and Nature of Science	History Of Science	Tracing the history of science can show how difficult it was for scientific innovators to break through the accepted ideas of their time to reach the conclusions that we currently take for granted.
5-8	History and Nature of Science	Nature Of Science	In areas where active research is being pursued and in which there is not a great deal of experimental or observational evidence and understanding, it is normal for scientists to differ with one another about the interpretation of the evidence or theory being considered.
5-8	History and Nature of Science	Nature Of Science	Scientists formulate and test their explanations of nature using observation, experiments, and theoretical and mathematical models.
5-8	History and Nature of Science	Science As A Human Endeavor	Women and men of various social and ethnic backgrounds-and with diverse interests, talents, qualities, and motivations-engage in the activities of science, engineering, and related fields such as the health professions.
5-8	Life Science	Diversity And Adaptations Of Organisms	Biological evolution accounts for the diversity of species developed through gradual processes over many generations.

5-8	Life Science	Structure And Function In Living Systems	Disease is a breakdown in structures or functions of an organism. Some diseases are the result of intrinsic failures of the system. Others are the result of damage by infection by other organisms.
5-8	Physical Science	Properties And Changes Of Properties In Matter	Substances react chemically in characteristic ways with other substances to form new substances (compounds) with different characteristic properties. In chemical reactions, the total mass is conserved. Substances often are placed in categories or groups if they react in similar ways; metals is an example of such a group.
5-8	Science and Technology	Abilities In Technical Design	Evaluate completed technological designs or products.
5-8	Science and Technology	Abilities In Technical Design	Implement a proposed design.
5-8	Science and Technology	Understanding About Science And Technology	Many different people in different cultures have made and continue to make contributions to science and technology.
5-8	Science as Inquiry	Abilities Necessary To Do Scientific Inquiry	Communicate scientific procedures and explanations.
5-8	Science as Inquiry	Abilities Necessary To Do Scientific Inquiry	Develop descriptions, explanations, predictions, and models using evidence.
5-8	Science as Inquiry	Abilities Necessary To Do Scientific Inquiry	Think critically and logically to make the relationships between evidence and explanations.
5-8	Science as Inquiry	Abilities Necessary To Do Scientific Inquiry	Use appropriate tools and techniques to gather and analyze, and interpret data.
5-8	Science as Inquiry	Understandings About Scientific Inquiry	Different kinds of questions suggest different kinds of scientific investigations. Some investigations involve observing and describing objects, organisms, or events; some involve collecting specimens; some involve experiments; some involve discovery of new objects and phenomena; and some involve making models.
5-8	Science in Personal and Social Perspectives	Personal Health	Natural environments may contain substances (for example, radon and lead) that are harmful to human beings.

5-8	Science in Personal and Social Perspectives	Personal Health	The potential for accidents and the existence of hazards imposes the need for injury prevention.
5-8	Science in Personal and Social Perspectives	Risks And Benefits	Important personal and social decisions are made based on perceptions of benefits and risks.
5-8	Science in Personal and Social Perspectives	Risks And Benefits	Individuals can use a systematic approach to thinking critically about risks and benefits.
5-8	Science in Personal and Social Perspectives	Risks And Benefits	Risk analysis considers the type of hazard and estimates the number of people that might be exposed and the number likely to suffer consequences.
5-8	Science in Personal and Social Perspectives	Risks And Benefits	Students should understand the risks associated with natural hazards (fires, floods, tornadoes, hurricanes, earthquakes, and volcanic eruptions), with chemical hazards (pollutants in air, water, soil, and food), with biological hazards (pollen, viruses, bacterial, and parasites), social hazards (occupational safety and transportation), and with personal hazards (smoking, dieting, and drinking).
5-8	Science in Personal and Social Perspectives	Science And Technology In Society	Science and technology have advanced through contributions of many different people, in different cultures, at different times in history.
5-8	Science in Personal and Social Perspectives	Science And Technology In Society	Societal challenges often inspire questions for scientific research, and social priorities often influence research priorities through the availability of funding for research.
5-8	Science in Personal and Social Perspectives	Science And Technology In Society	Technology influences society through its products and processes.