

# NATIONAL SCIENCE EDUCATION STANDARDS

## The Chemistry of Natural Dyes

<b>GRADE</b>	<b>CATEGORY</b>	<b>SUB-CATEGORY</b>	<b>STANDARD</b>
9-12	History and Nature of Science	Historical Perspectives	In history, diverse cultures have contributed scientific knowledge and technological inventions.
9-12	Physical Science	Chemical Reactions	A large number of important reactions involve the transfer of either electrons (oxidation/reduction reactions) or hydrogen ions (acid/base reactions) between reacting ions, molecules, or atoms.
9-12	Physical Science	Chemical Reactions	Chemical reactions occur all around us, for example in health care, cooking, cosmetics, and automobiles.
9-12	Physical Science	Structure and Properties of Matter	Bonds between atoms are created when electrons are paired up by being transferred or shared.
9-12	Physical Science	Structure and Properties of Matter	The physical properties of compounds reflect the nature of the interactions among its molecules.
9-12	Science as Inquiry	Abilities Necessary To Do Scientific Inquiry	Design and conduct scientific investigations.
9-12	Science as Inquiry	Abilities Necessary To Do Scientific Inquiry	Formulate and revise scientific explanations and models using logic and evidence.
9-12	Science as Inquiry	Understandings about scientific inquiry	Scientists usually inquire about how physical, living, or designed systems function.