



Philosophy

Today's students will need to provide the solutions to tomorrow's problems. However, the problems our children will have to deal with when they are adults are virtually unimaginable to us now. Children must be prepared to live in a rapidly changing technological society, and skills must be developed that will help children deal with change. Therefore, the Sunset Ridge School District #29 Science Program is based upon the Illinois Learning Standards and the National Science Teachers' Association position statement (see enclosed) and emphasizes key concepts and principles of life, physical, and earth and space sciences, the children's problem solving capabilities, and their application of knowledge.

Science is a way of learning, experiencing and understanding the universe of which we are a part. It involves the development of an attitude of inquiry with the opportunity for learning by discovery and investigation through both individual and group work. The program is designed to excite children's innate curiosity and foster an interest in the students' natural world as well as in themselves. It provides age-appropriate opportunities to recognize and investigate problems, express and interpret information and ideas, use technology to access information, process ideas and communicate results, and make connections among all disciplines.

The primary function of science education is to provide students with the opportunity to explore science in their lives and to become comfortable and personally involved with it. Certainly, the science curriculum at this level should reflect societal goals for scientific and technological literacy. In addition to academic preparation, the curriculum should emphasize the role of science for personal, social, and career use, as well as the interplay among science, technology, and society in past, present, and future contexts. The District believes that science is a field in which people of both sexes, all abilities, and all cultures can and should participate successfully.



The District #29 Science Program is based upon six interrelated and developmental objectives.

1. Organizing Frameworks

Students develop the skills to organize scientific concepts in relevant ways. They learn to use meaningful representations, such as cycles, models, graphs, spreadsheets, and databases. These frameworks help students understand, organize, retrieve, and apply scientific concepts.

2. Content Information

The concepts and vocabulary of life, physical, earth and space sciences make up the content of the program and provide the foundation for developing process, cognitive, mechanical, and affective skills.

3. Process Skills Development

Students are provided with opportunities for hands-on experimentation and investigation. Scientific inquiry skills such as observing, describing, hypothesizing, collecting, recording and using data, inferring, analyzing, and communicating are developed throughout the grade levels.

4. Mechanical Skills

Students learn processes, techniques, methods, and safe use of equipment and technology. They apply and practice this knowledge in a hands-on, activity-based learning environment.

5. Cognitive Skills Development

Science activities employ a wide variety of instructional strategies to accommodate a variety of cognitive levels and learning styles. Students learn to make connections by recognizing and applying important information and ideas within science and among other learning areas.

6. Affective Skills Development

Students are encouraged to develop curiosity, respect for living things, ethical practices, self-discipline, cooperation, and a sense of awe and appreciation for science. A better understanding of global, environmental, and social issues and the implications of scientific advances upon them are emphasized.



GRADES K-8 CURRICULUM OUTLINE

	LIFE SCIENCE	EARTH SCIENCE	PHYSICAL SCIENCE	SUPPLEMENTAL	SCIENCE EVENT
K	<ul style="list-style-type: none"> plants classroom pets fish 	<ul style="list-style-type: none"> astronomy seasons 	<ul style="list-style-type: none"> attributes of objects 	<ul style="list-style-type: none"> dinosaurs weather birds 	<ul style="list-style-type: none"> Science Olympiad
1	<ul style="list-style-type: none"> plants insects (fall/spring) rainforest animals 	<ul style="list-style-type: none"> water 	<ul style="list-style-type: none"> colors 	<ul style="list-style-type: none"> plants (MF garden) Explorer Club topics weather Earth Day 	<ul style="list-style-type: none"> Invention Convention
2	<ul style="list-style-type: none"> plants 	<ul style="list-style-type: none"> geology-rocks/minerals 	<ul style="list-style-type: none"> simple machines (position, force & motion) matter 	<ul style="list-style-type: none"> animal habitats Earth Day recycling 	<ul style="list-style-type: none"> S.E.E.
3	<ul style="list-style-type: none"> animal classification 	<ul style="list-style-type: none"> astronomy 	<ul style="list-style-type: none"> sound 	<ul style="list-style-type: none"> plants (MF garden) weather 	<ul style="list-style-type: none"> S.E.E./Astronomy
4	<ul style="list-style-type: none"> drug ed nutrition 	<ul style="list-style-type: none"> woodlands rain forest weather 	<ul style="list-style-type: none"> electricity scientific method 		<ul style="list-style-type: none"> Invention Convention
5	<ul style="list-style-type: none"> human body systems marine life 	<ul style="list-style-type: none"> oceans unit 	<ul style="list-style-type: none"> oceans unit 		<ul style="list-style-type: none"> Science Olympiad
6	<ul style="list-style-type: none"> taxonomy viruses, bacteria plants 	<ul style="list-style-type: none"> astronomy water quality rocks and minerals 	<ul style="list-style-type: none"> Introduction to physics & chemistry 		<ul style="list-style-type: none"> S.E.E.
7	<ul style="list-style-type: none"> cells, life processes human body systems 	<ul style="list-style-type: none"> meteorology 	<ul style="list-style-type: none"> physics-law 		<ul style="list-style-type: none"> S.E.E.
8	<ul style="list-style-type: none"> ecology 	<ul style="list-style-type: none"> geology 	<ul style="list-style-type: none"> chemistry 		<ul style="list-style-type: none"> S.E.E.