

**Fourth Grade Science** students at St. Patrick’s will develop into individuals with the ability to use the process skills of inquiry to discover answers to questions. Using various instructional tools, students will deepen their understandings of Life Science, Earth/Space Science, Physical Science and Health/Social Science topics and further their knowledge of systems, order and organization within these disciplines. Students will gain experience in observing, gathering and recording data, evaluating results/observations, and presenting findings to others. Students’ progress will be assessed using a variety of tools including: lab experiments, designing and building models, drawing or completing diagrams, developing essays or other written evidence of mastery, and participating in chapter/unit tests. During the second semester, fourth graders will complete an archdiocesan assessment about healthy eating habits titled, “What’s to Eat.”

	<u>Standards/Goals</u>	<u>Instructional Tools</u>	<u>Assessment Tools</u>
<b>4.1 Life Science</b>	<ul style="list-style-type: none"> <li>a. Students will identify a food chain: predator/prey</li> <li>b. Students will recognize and investigate the kingdoms: animal, plant, fungi, bacteria, protist</li> <li>c. Students will compare and contrast animal classes’ specific physical characteristics (insects, amphi-bians, reptiles and mammals).</li> <li>d. Students will describe how internal/external stimuli affect the behavior of living things.</li> <li>e. Students will distinguish between vertebrates and invertebrates and explore variations of species.</li> <li>f. Students will explore how adaptations of animals allow for their survival.</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Diagrams</li> <li>Power Point presentations</li> <li>Trade books</li> <li>Lists of characteristics of each animal class</li> <li>Science Lab</li> <li>Field Trip</li> <li>Internet</li> <li>Animals</li> <li>Plants</li> </ul>	<ul style="list-style-type: none"> <li>Venn Diagrams</li> <li>Charts</li> <li>Labs</li> <li>Quizzes/Tests</li> <li>Research</li> <li>Projects</li> </ul>
<b>4.2 Earth/Space Science (Make-Up of the Earth)</b>	<ul style="list-style-type: none"> <li>a. Students will be able to identify landforms.</li> <li>b. Students will discover how earthquakes and volcanoes change the surface of the Earth.</li> <li>c. Students will learn how weathering and erosion can affect Earth’s features and how we can control erosion.</li> <li>d. Students will identify rocks and minerals by their properties/characteristics</li> <li>e. Students will explain the rock cycle.</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Rock/Mineral samples</li> <li>Mineral test kits</li> <li>Volcano models</li> <li>Internet</li> <li>Field Trip</li> <li>Diagrams</li> <li>PowerPoint presentations</li> <li>Science Lab</li> </ul>	<ul style="list-style-type: none"> <li>Models</li> <li>Labs</li> <li>Teacher Observation</li> <li>Quizzes/Tests</li> <li>Research</li> <li>Essays</li> </ul>

	<b><u>Standards/Goals</u></b>	<b><u>Instructional Tools</u></b>	<b><u>Assessment Tools</u></b>
<b>4.3 Earth/Space Science (Weather)</b>	<ul style="list-style-type: none"> <li>a. Students will measure: air temperature, air pressure, wind direction, wind speed, humidity and precipitation</li> <li>b. Students will describe what causes changes in weather: clouds, precipitation, lightening, tornadoes, hurricanes, thunderstorms.</li> <li>c. Students will recognize cloud formations.</li> <li>d. Students will explore tracking and predicting weather</li> <li>e. Students will investigate and describe the water cycle</li> </ul>	Weather equipment: thermometers, sling psychrometers, rain gauges, anemometers, barometers Charts Internet Science Lab Guest speaker (meteorologist)	Quizzes/Tests Labs Teacher observation Weather charts
<b>4.4 Physical Science (Matter)</b>	<ul style="list-style-type: none"> <li>a. Students will develop an understanding of properties and changes of properties in matter</li> <li>b. Students will measure different types of matter</li> <li>c. Students will distinguish between physical and chemical changes in matter</li> </ul>	Text Two pan balance Gram weights Science Lab Internet	Quizzes/Tests Labs Teacher observation
<b>4.5 Physical Science (Light, Heat, Electricity, Magnetism)</b>	<ul style="list-style-type: none"> <li>a. Students will develop and understanding of light, heat, electricity and magnetism.</li> <li>b. Students will describe how heat is produced and how it flows</li> <li>c. Students will investigate how circuits work; open/closed switches, insulators/conductors, series/parallel, and static electricity</li> <li>d. Students will discover how magnetic poles operate; attract/repel</li> </ul>	Text Internet Science Lab Magnets Circuits Switches Batteries Prisms	Quizzes/Tests Labs Teacher observation
<b>4.6 Health/Social Science</b>	<ul style="list-style-type: none"> <li>a. Students will identify the purpose of the circulatory, nervous, and digestive systems.</li> <li>b. Students will recognize the importance of maintaining a healthy body.</li> <li>c. Students will demonstrate knowledge of the Food Guide Pyramid, cleanliness, nutrition, exercise, rest, and safety rules at home and school</li> <li>d. Students will describe how personal choices can directly affect a person's health (exercise, nutrition, use of drugs)</li> </ul>	Diagrams Text Charts Internet Food pyramid teaching chart Guest speaker (dietician)	Quizzes/Tests Reports Graphic organizers Archdiocesan assessment "What's to Eat?"

	<u>Standards/Goals</u>	<u>Instructional Tools</u>	<u>Assessment Tools</u>
<b>4.7 Science/ Technology History/Nature</b>	<ul style="list-style-type: none"> <li>a. Students will develop understanding of technological design; identify simple problems, propose a solution, implement the solution, and evaluate the implementation</li> <li>b. Students will develop an understanding of science and technology and identify tools or techniques that use scientific knowledge to solve problems</li> <li>c. Students will increase their understanding of science's role in human life; research and report on contributions, describe how science is used in different careers, and show how current scientific discoveries illustrate that science is never finished.</li> </ul>	<ul style="list-style-type: none"> <li>Text</li> <li>Internet</li> <li>Science Lab</li> <li>Trade books</li> <li>Guest Speakers</li> <li>Newspaper</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Quizzes/Tests</li> <li>Reports</li> <li>Graphic organizers</li> <li>Projects</li> <li>Teacher Observation</li> </ul>