SCIENCE 6 YEAR OUTLINE

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| **Month (pacing)** | **Unit** | **Big Ideas** | **Outcomes** | **Learning Experiences** |
| September - November | *Physical Science*  **Principles of Flight** | “How is flight achieved?” | 6.1 – Examine connections between human fascination with flight and technologies and careers based on the scientific principles of flight.  6.2 – Investigate how the forces of flight of thrust, drag, lift, and gravity act on living things and constructed devices that fly through the air.  6.3 – Design a working prototype of a flying object that meets specific performance criteria. | - observations/recording bird flight  - First Nations storytelling and use of flight in weapons  - research history of flight, Saskatchewan and world contributions  - explore and diagram flight principles  - question and investigate principles  - assess, construct, manipulate and demonstrate a working flying device that carries out performance criteria. |
| November - January | *Earth and Space Science*  **Our Solar System** | “Why should I care about Space? “ | 6.1 – Research and represent the physical characteristics of the major components of the solar system, including the sun, planets, moon, asteroids and comets.  6.2 – Assess the efficacy of the various methods of representing and interpreting astronomical phenomena, including phases, eclipses and seasons.  6.3 Evaluate past, current and possible future contributions of space exploration programs including space probes and human spaceflight, which support living and working in the inner solar system | - research and construct an interactive power point of a trip to space  - create star chart  - create scale sized model  - demonstrate human representation of astronomical phenomena  - reflections of efficacy  - use power point to show understanding of life in space  - Canadian contributions |
| January - March | *Physical Science*  **Understanding Electricity** | “Let there be light?” | 6.1 – Assess personal, societal, economic and environmental impact of electricity use in Saskatchewan and propose actions to reduce those impacts.  6.2- Investigate the characteristics and applications of static electric charges, conductors, insulators, switches, and electromagnetism.  6.3 – Explain and model the properties of simple series and parallel circuits. | - Create and provide examples of energy sources and how they have changed our lives.  - Explore through debate various renewable and non-renewable sources of energy and their impact.  - Investigate, explain, pose questions and make predictions in the study of electricity  - Understand, design and troubleshoot using electrical circuits and summarize their learning in a written format |
| April - June | *Life Science*  **Diversity of Living Things** | “As an organism, where do I fit in my world? “ | 6.1 – Recognize, describe, and appreciate the diversity of living things in other ecosystems and explore related careers,  6.2 - Examine how humans organize understandings of the diversity of living things.  6.3 - Analyze the characteristics of behaviors of vertebrates (mammals, birds, reptiles, amphibians and fish) and invertebrates  6.4 – Examine and describe structures and behaviors that help individual organisms survive in their environment in the short term and species to adapt to their environments in the long term.  6.5 – Assess effects of micro-organisms on past and present society, and contributions of science and technology to human understanding of micro-organisms. | - state, observe and document the diversity of living things.  - journal nature walk  - observe, represent and compare diversity in habitats  - career investigation  - construct and use classification systems  - visual representation of kingdoms  - identify characteristics of vertebrates and invertebrates  - compare and represent characteristics and behaviors  - Research, describe and suggest reasons of examples of adaptations  - explore and compare adaptations.  - explain how micro-organisms meet their needs  - explore positive and negative effects of micro-organisms. |