



**GRADE 4 PROJECT TIME LEARNING OUTCOMES AND UNIT GUIDE**

**Who We Are**

*An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.*

Central idea: Beliefs, values, and location shape who we are.

Lines of inquiry:  Regional cultural traditions  Mesoamerican cultures  Commonalities of people  How light is created  Light as technology

**Physical Science: Light & Electrical Devices (LI)**

**SS: Interactions and Interdependence of Nations (IN)**

Investigate the characteristics and physical properties of natural and artificial sources of light in the environment.

Assess personal, societal, and environmental impacts of light-related technological innovations including optical devices.

Examine the social roles and cultural diversity that existed in Mesoamerican ancient civilizations (Mayan, Aztec, Inca).

Analyze how light interacts with different objects and materials to create phenomena such as shadows, reflection, refraction, and dispersion.

Explain and model magnetism and the many useful applications in everyday life.

**Where We Are in Place and Time**

*An inquiry into orientation in place and time; personal histories; homes and journeys; the discoveries, explorations and migrations of humankind; the relationships between and the interconnectedness of individuals and civilizations, from local and global perspectives.*

Central idea: Relocation impacts history.

Lines of inquiry:  Movement of people over time  Hardships and successes of settling  Causes and effects of settlement  
 Land formation  Physical and human geography  Rock cycle

**Earth & Space Science: Rocks, Minerals, & Erosion (RM)**

**Social Studies: Dynamic Relationships (DR)**

Investigate physical properties of rocks and minerals, including rock cycle and those found in the local environment.

Use various model representations of the Earth.

Assess the degree to which the geography and related environmental and climatic factors influence ways of living on and with the land in American communities and locally.

Assess how human uses of rocks and minerals impact self, society, and the environment.

Compare the beliefs of various communities in the USA and around the world regarding living on and with the land.

Analyze how weathering, erosion, and fossils provide evidence to support human understanding of the formation of landforms on Earth.

**How We Express Ourselves**

*An inquiry into the ways in which we discover and express ideas, feelings, nature, culture, beliefs and values; the ways in which we reflect on, extend and enjoy our creativity; our appreciation for the aesthetic.*

Central idea: The science of sound is used for communication.

Lines of inquiry:  How sound is made  How sound changes  How sounds affect our lives  The people of Nicaragua

**Physical Science: Sound (SO)**

**SS: Interactions and Interdependence of Nations (IN)**

Explore natural and artificial sources of sound in the environment and how those sounds are detected by humans and animals.

Assess personal, societal, and environmental impacts of sound-related technologies.

Analyze how Nicaraguan people have shaped and continue to shape Nicaragua.

Draw conclusions about the characteristics and physical properties of sound, including pitch and loudness, based on observation.



# SAN JUAN DEL SUR DAY SCHOOL



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### How the World Works

*An inquiry into the natural world and its laws; the interaction between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.*

Central idea: Human impact determines the uses of natural material.

Lines of inquiry:  How structures and mechanisms work  How simple machines make life easier  Ancient governing systems  Technology

#### Physical Science: Pulleys & Gears (PG)

Evaluate the impact of pulleys and gears on society and the environment.

Investigate ways in which pulleys and gears modify the speed and direction of, and the force exerted on, moving objects.

#### Resources and Wealth (RW)

Analyze the strategies Mayan, Inca and Aztec people have developed to meet the challenges presented by the natural environment.

### How We Organize Ourselves

*An inquiry into the interconnectedness of human-made systems and communities; the structure and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.*

Central idea: Human impact on habitats and systems are in place to organize communities.

Lines of inquiry:  Habitats  Structures and behaviours of plants and animals  Human activities impact  The voting process  Elected and appointed officials  Responsibilities of active citizenship  Quality of life

#### Life Systems : Habitats & Communities (HC)

Investigate the interdependence of plants and animals, including humans, within habitats and communities.  
Analyze the structures and behaviors of plants and animals that enable them to exist in various habitats.

Analyze the governing systems of the Mesoamerican civilizations (Mayan, Inca and Aztecs).  
Understand the structures, functions, and powers of the local, municipal, and federal governments.

#### Power and Authority (PA)

Analyze the relationship between governance institutions in Nicaragua and the quality of life of people in the country.

### Sharing the Planet

*An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and the relationships within and between them; access to equal opportunities; peace and conflict resolution.*

Central idea: Living things are affected by environmental stresses.

Lines of inquiry:  How living things are affected by environmental stresses  How to lessen the effects of environmental stresses  How agriculture impacts Nicaragua

#### Life Systems : Habitats & Communities (HC)

Assess the effects of natural and human activities on habitats and communities, and propose actions to maintain or restore habitats.

#### Resources and Wealth (RW)

Investigate the importance of agriculture to the economy and culture of Nicaragua.