

The Canadian Montessori Teacher Education Institute

Daniel Jutras Ph.D. Master Teacher

**ELEMENTARY MONTESSORI GEOGRAPHY ALBUM
&
SCIENTIFIC EXPERIMENTS**



ELEMENTARY MONTESSORI GEOGRAPHY ALBUM

Table of Contents

Introduction

The Great Lesson

Introduction of the Three Elements: Gas, Liquid, Solid

The Sandpaper Globe

The Coloured Globe

Puzzle Map of the World

Folders for each Continent

Puzzle Map of the Child's Own Continent

Puzzle Map of the Child's Own Country

Nomenclature Cards Specifying "Parts of A Flag

Nomenclature Cards about Flags

Flags

Contrasted Land and Water Forms

Weather and Clouds

Mineral Kingdom

Solar System

Constellations

The Constellations of the Northern Hemisphere

Experiments Inspired by the Great Lesson

Intensity of Cold in Space

States of Matter: Solids, Liquids, Gases

Attraction of Particles

Molecular Bonding of Solids

The Nature of Molecular Bonding in Liquids

Molecular Structure of a Liquid versus a Solid

Gases Travel In All Directions

Melting Points of Different Materials

Evaporation

Settling of Matter According to Density

Expansion of Heated Matter/Gases

Wrinkling of the Earth's Crust

Galaxies

Stars

The Sun as a Star

Parts of the Sun

The Solar System as Part of the Galaxy

The Sun as a Star with Eight Planets

The Relative Size of the Sun and the Earth

The Layers of the Earth

The Layers of the Earth: A Detailed Look at the Lithosphere and Baryshpere

Elements of Matter

Formation of a Solution: Salt and Water

Formation of a Suspension: Water & Chalk

Formation of a Mixture: Sand and Iron

Formation of Types of Solutions

Formation of a Saturated Solution

Formation of a Super-Saturated Solution

Formation of Crystallization

Formation of Coagulation

Formation of a Chemical Reaction

Experiments in Laws of Combining: Fluidity

Degree of Solidity: Rigid, Plastic and Elastic Solids

The Movement of the Planet Earth and its Consequences

The Earth Receives Light from the Sun

Isolation

Climatic Zones of The Earth

Imaginary Lines

Time Zones

Introduction to Plate Tectonics

Major Plates of The Earth's Crust and Their Directions of Movement

Plate Tectonics: The Formation of the Continents

Consequences of the Movement of the Plates

Mountain Building

Parts of A Mountain

The Lithosphere

The Atmosphere

Demonstrations on the Evidence and Characteristics of the Atmosphere

The Presence of the Atmosphere

The Pressure of the Air

The Air Mass

The Air Occupies Space

The Atmospheric Layers

The Protection of the Earth by the Atmosphere

The Atmosphere as an Insulator

The Importance of the Atmosphere

The Motion of the Atmosphere Results in the Wind

Hot Air Rises – The Chimney Effect

The Paper Spiral

Air Subject to Gravity

Air Rises and Falls

Air Holds Moisture

Air Rises and Falls

Air Subject to Gravity

Other Experiments

How do penguins keep warm in cold climates?

How do emperor penguins keep their eggs warm?

Parachute Tests

Creating a simple circuit

Conducting Electricity

Conducting Electricity: testing circuits

Creating circuit boards

Investigating Acids and Alkalis

Measuring Area

Using a magnifying glass

Pumping Blood

Magnifying with water