# Curriculum for Elementary II (9-12 years)

## Botany and Microscopic Study:

The role plants play in shaping the environment where people and animals live. Students look at the structure and function of plant parts, identification of plants, and needs of plants. The students will explore plant and animal cells, and how cells work together to perform specific functions. They will also study microorganisms and food spoilage.

# Zoology:

Students will explore the animal kingdom and develop an understanding of its interconnection, investigate animal routines and how they are designed for survival, and identify classification and external anatomy. They then use their knowledge and understanding to identify animals. Students will have a chance to investigate the internal anatomy and physiology of animals, relationships of humans with animals, and adaptations.

# **Physical Geography:**

Students will focus on the earth's biosphere, including the atmosphere, hydrosphere and lithosphere. They will discover how these spheres are inextricably linked and that logical patterns emerge over time. Examining these patterns leads to an understanding of weather and weather systems, how the earth evolved into its current form, and how it may change in the future.

#### **Cultural Geography:**

The study of specific places and peoples on earth, with an emphasis on the interaction between the two. They will cover maps and mapping, continents and explore each continent's cultural geography, climates, and cultural celebrations. The children will create their own cultural geography research projects.

#### World History:

World History will focus on prehistory, archaeology, ancient civilizations, early exploration of the world, European history and history through art. The students will have a chance to use research tools common to historians, carry out research, and write research reports.

#### **Health Sciences:**

This curriculum covers food and food handling, nutrition, individual and community development, and wellness.

# **Astronomy & Ecology:**

Astronomy will cover constellations, light years, astronomical tools, stars, the sun, the earth, the solar system, the moon, tides, eclipses, meteors, asteroids, comets, and space exploration. Ecology is the study of relationships between living things and their environments. Students will learn about ecosystems and biodiversity in the context of the interconnectedness of all living things on earth, and the balance and resilience this interconnectedness creates.

#### Scientific Method and Technology:

Students will learn about the scientific method, scientific tools, and science experiments. They will be exposed to technology: simple machines, technologies to meet basic needs, and engineering technologies. They will have a chance to get involved in technology research projects.

## Matter and Energy:

Matter explores the nature of matter and elementary chemistry, the study of how matter changes from one form to another. Energy explores the nature of energy and elementary physics, the study of how motion, force, and energy affect matter.

#### African History:

Students learn about the indigenous peoples, exploration and settlement, colonial times, formation of the country, industry, people, government, politics etc.

#### **Language Arts:**

The curriculum fosters a love of reading and communicating. The curriculum covers skill development in speaking and listening, handwriting, spelling, grammar and syntax, reading, word study, the mechanics of writing, research skills, literature and persuasion.

#### **Mathematics:**

The curriculum moves further into critical thinking and problem-solving skills, covering decimal system, graphs, statistics, practical applications, pre-algebra and geometry. The Montessori materials will continue to assist the students in moving from concrete to abstract.

# **Physical Education:**

The students will look at the importance of physical education. A variety of games and activities will be taught to promote cardiovascular exercise, strength training, skills, stretching and fun. The focus will continue to be cooperative and to promote lifelong physically fit students and sportsmanship.

## Music:

Music will continue to play a role in the students' education. They will study the world of music and musical instruments. They will be introduced to music history, a variety of composers, and a variety of music genres.

## Going Out:

Going out is an integral part of the Montessori elementary experience. The world becomes the children's classroom. As the students are learning and researching, they will be "going out" into the community to do research or to learn a life skill. In the Elementary II program, the students will take more responsibility in arranging the details for the going out experience: contact information, making phone calls, figuring out the amount of money needed, transportation and/or route, time, and all other necessary items.