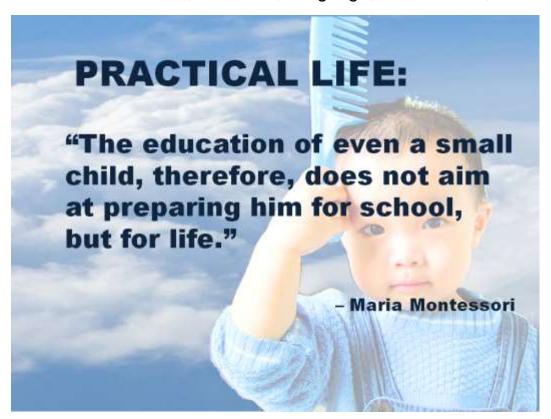


"We must help the child to act for himself, will for himself, think for himself; this is the art of those who aspire to serve the spirit."

Maria Montessori

The **five** key areas of learning in the Montessori environment, which include: Practical Life, Sensorial, Language, Mathematics, and Culture.



**Practical Life:** The activities in Practical Life fall into four main categories:

Using familiar items doing everyday chores, children learn control of movement, which benefit fine motor skills and concentration.



Care of self: my body, washing, dressing, pouring drinks, health & hygiene, food preparation...

Care of the environment: sweeping/mopping the floor, cleaning the table/window, watering plants...

Grace and courtesy: Children learn manners and social skills. We instill good values in children which will benefit them for life...

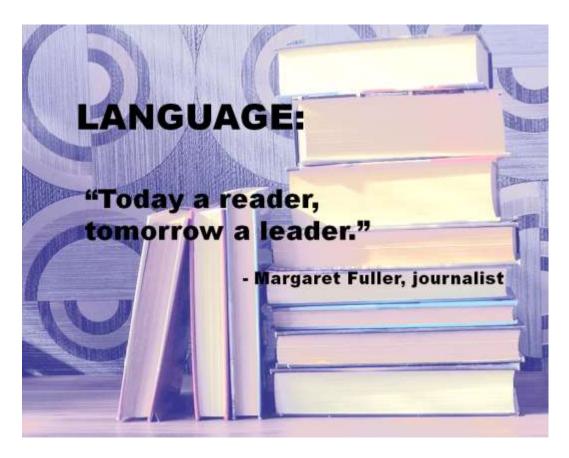
These 4 area activities help children gain coordination, concentration, all of which will indirectly enhance their reading/writing ability later in life. These lessons will also allow child gain self-confidence, independence, and social skills.



<u>Sensorial:</u> Doctor Maria Montessori designed the sensorial materials to help children develop the senses of perception on color, shape, size, weight, texture, sound or smell.



Through visual, touch, smell, taste, hear activities, children became more aware of smaller details in patterns, qualities as well as develop fine motor function in the hands.

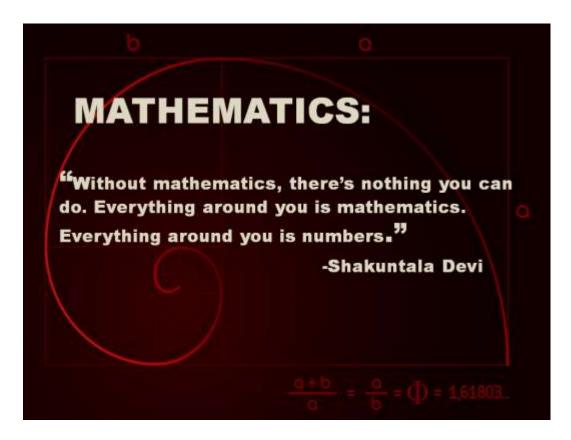


<u>Language (Reading/Writing):</u> That children acquire language begins from the moment of birth. Some believe it extends even earlier. That reading, talking, rhyming, singing, and interacting with young children profoundly influence literacy and language development, which are the foundations for all other learning. Early introduction to reading enables children to read earlier and become better learners.

Language development of children is an integral part of all the activities throughout the school with a focus on oral language development, building vocabulary and effectively communicating with others. The ultimate goals for our children are reading and writing. Learning are enhanced through sensorial materials, activities are designed for learning the shape and the sound of letters; tracing the letter shape for practicing fine motor skills, which prepare the child for writing. Children learn words phonetically, practice



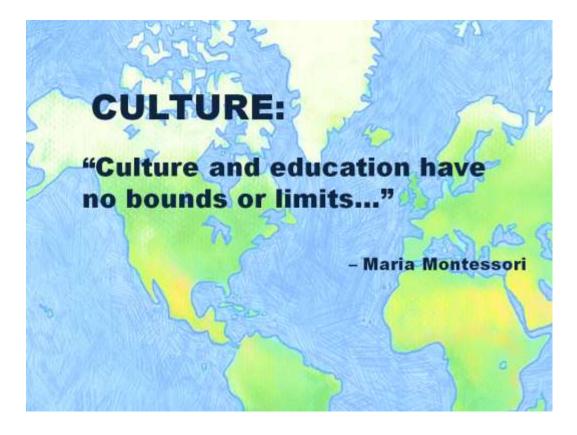
reading, progress to grammar (nouns, verbs, adjectives, etc.), and create sentences. All of which build the foundations necessary for literacy.



<u>Mathematics</u>: A growing number of researches have shown the importance of including mathematics in the curriculum of early childhood education. During the first six years of a child's life, children who are taught math early and learn the basics are set up for a lifetime achievement in all aspects of their academic performance.

Using concrete sensorial materials, concepts of mathematics are introduced to children through purposeful and active play, which build a strong foundation for formal math learning later in education. They learn counting, making connections between number symbols and object quantities, decimal system and mathematical operations.(number sense); shapes and planes, shape identification and differentiation (Geometry); patterns, comparing and sorting (algebra); comparing sizes, lengths and weights (measurement); graphing and sorting, simple estimation (data analysis).





<u>Culture (History & Geography):</u> This program exposes children to the globe and the world they live in. Through celebrating our national festivals as well as observing different cultural events, children get to understand their own culture as well as different culture from the world; different countries and flags; their culture through arts and food.

The history of America and human civilization were introduced after children understand their own timeline...

Using sensorial geographical materials, globe and world maps, give children the sense of place they live. Map activities enhance children's fine motor skills.

Seeing the world difference broaden children's view, allow them to be open-minded.



## STREAM:

<u>Science:</u> Through fun activities children learn to explore and understand the world around them.

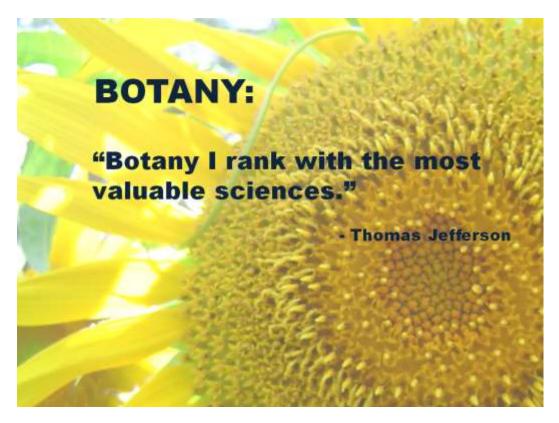
Science as we all know plays a big part in our understanding of the world around us, and as children, the need to understand everything is more of a need than a want. Children are curious by nature and it peaks during the years of early childhood. They begin asking questions such as, "Why is the sky blue?" or "Why we don't see stars during the day?" By including science in a child's education, it will help them instill a love of science, develop lifeskills, form independent opinions, and encourage critical thinking. What we as educators and you as their parents want them to keep are those curious young minds and never lose the need for knowledge.



Through hands on activities, children learn naturally to ask questions and seek answers for the Why, What, When, Who and How at an early age. These will enhance children's problem solving skills.

Children will be exposed in the following scientific fields: **botany, zoology, chemistry, physics, geology and astronomy.** 

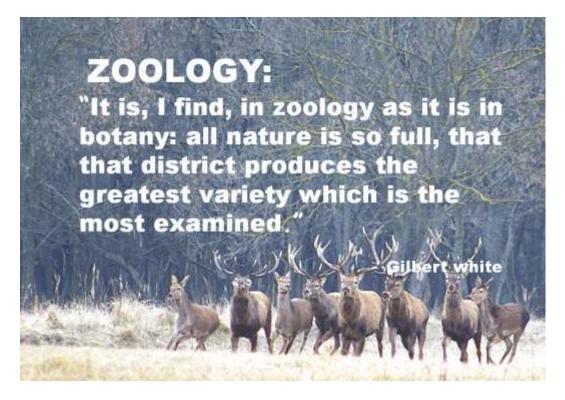




### **Botany:**

Scientific nomenclature of plants will be introduced. Different types (classification) of plants, life cycle, leaf, seeds, flowers, vegetation and much more. The study of germination, planting in the garden and watering the plant give children the understanding of basic living requirements for plants.

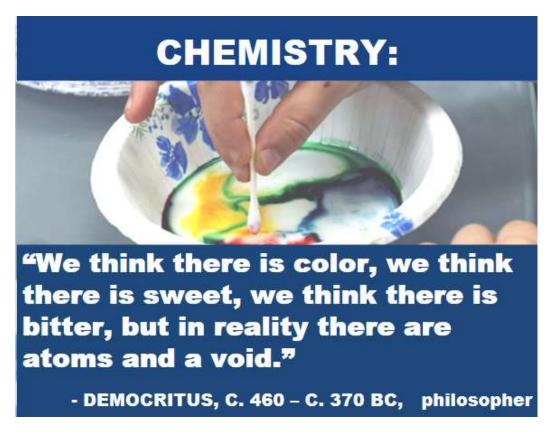




### Zoology:

Different types (classification) of animals Mammals, reptiles, amphibians, fish, birds, and insects will be introduced. Feeding the goldfish, petting a bird, observing ants moving food in the woods are all part of the fun children will have when it comes to zoology.

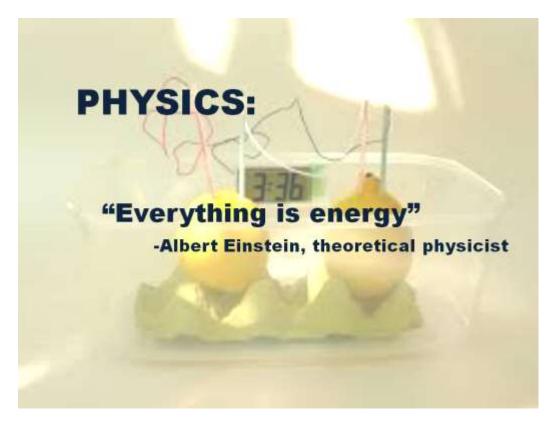




### **Chemistry:**

Learning is fun through these activities. Children understand reactions and see cause and effect in front of their eyes.

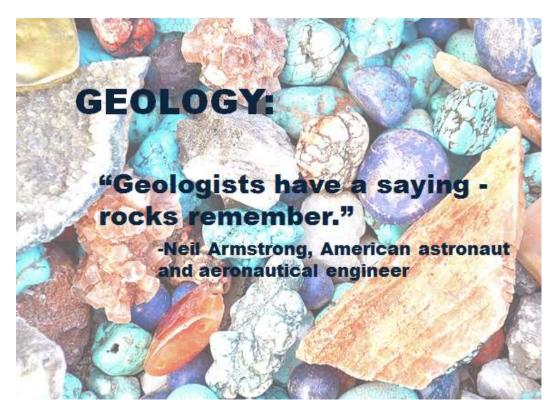




# **Physics:**

Through fun activities, children will turn abstract concepts into concrete reality, develop a love for science.

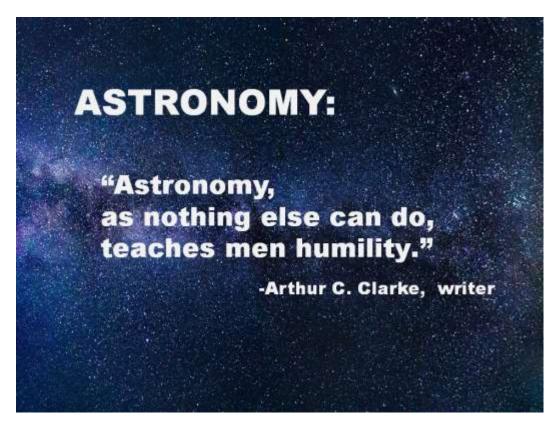




### **Geology:**

Through playing with sand and rocks, children learn living and non-living things.

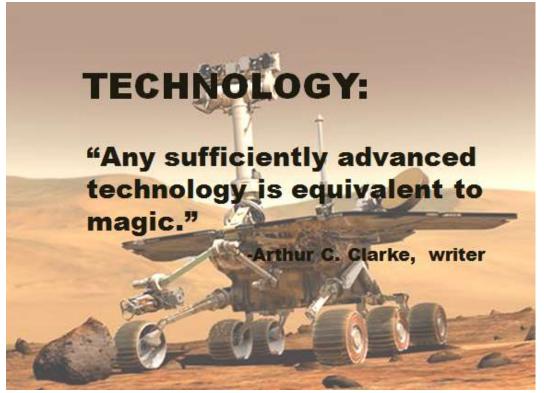




# **Astronomy**

Through books, pictures, art and crafts work, children get to know rockets, solar system, the milky way, the Moon phases, astronauts etc.





<u>Technology:</u> Admit or not, children today are already being exposed to emerging technologies. A 3 year old, maybe younger, already knows how to swipe when using a tablet computer or smartphone, looking at videos, taking photos or even making a video recordings. In addition, digital play uses thinking skills in the same ways that traditional play does. It would be unreasonable to exclude technology from a child's education. On the contrary, it would be necessary to guide them on taking full advantage of the technology.

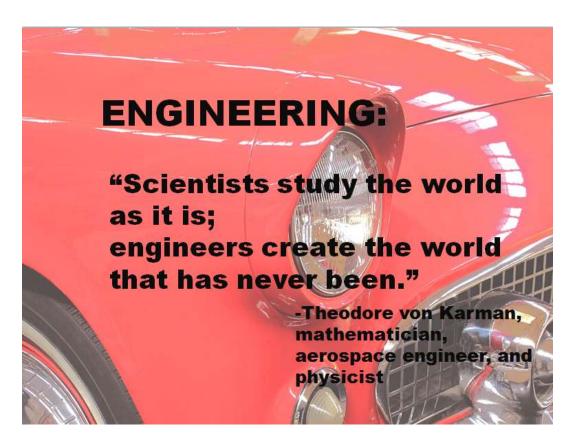
Technology is important in early childhood education is also due to the integration of it becomes the standard in education system. Students access teaching materials online, teachers grade homework online, exams could be taken online......

Furthermore, as we come into a more technological dependent age, robots enter our everyday life, Artificial Intelligence (AI) draw increasing attention of scientists. Big data, machine learning, interstellar travel all those big words tell us that tech careers are the 21st century job market. And early childhood education must lay the foundation.

In our classroom, children learn technology through reading books, watching videos, exploring using tools like crayons and rulers, magnifier, and computers. We have computer station for Preschool students to facilitate their learning with phonics, reading,



comprehension and math programs. Students are introduced to technology and typing. They also do research for projects and learn presentation and art work on computers.



<u>Engineering:</u> Engineers turn theory into reality. Engineering is recognizing the problems and forming solutions, then testing the solutions and repeat the cycle again. Engineering makes our society moving forward. Our lives get more comfortable and tasks done easier because the advancement of the industry.

# Little engineer

Children like to ask why things work. They like to do things themselves. Engineering for preschoolers is the process of building and designing something to solve a problem, of making things better. It's extremely important that children learn how to follow directions and processes. And preschoolers are at the perfect age to start.



Through fun projects, block activities, and storytelling, basic engineering concepts and processes will be introduced to children. These activities enhance fine and gross motor skills development. The engineering activities often require children working in a team, which allow them to build social skills. To solve problems, children learn to look at things from different angles; to find the alternatives require critical thinking; to convey ideas, children enhance their communication skills.

# "If we try to think back to the dim and distant past... what is it that helps us reconstruct those times, and to picture the lives of those who lived in them? It is their art... It is thanks to the hand, the companion of the mind,

that civilization has arisen."

<u>Art:</u> Art plays an important role in our lives. Art makes our world beautiful, and our lives interesting. Through art, we express our feelings and thoughts; make ourselves unique and belong to a community. Through art we communicate with others around the world and beyond. Through art we have a way to understand the past and leave a legacy to the future generation. Research has shown that visual stimulation enhance brain connectivity, that creative thinking strengthen cognitive reserve. These help improve kids on learning. Doing artwork can improve fine motor skills and concentration through small purposeful movement; it helps on decision making, boost child confidence and self-esteem.

-Maria Montessori



At STREAM Montessori School, art program starts from the beginning. Beautiful artworks are presented to children of all ages. Artists will be introduced through books and artwork activities.

### Infant / Toddler:

- Visual stimulation/ appreciation
- Artist and me
- Playdough
- Finger painting
- Other crafts

### Preschool:

- Visual stimulation/ Appreciation
- Artist and me
- Playdough
- Finger painting
- Open-ended Drawing
- Other crafts