



STEM INTEGRATED PROGRAM

What is STEM

- Stands for Science Technology Engineering & Math
- Also includes Social Sciences
- Cross linking of Science Math and Social studies
- Creating linkages in the mind of the student and applying the Knowledge to take up engineering & project challenges
- Results in a holistic view and 21st century skills of creativity, collaboration, critical thinking and communication
- Preparing the student for the world of tomorrow where disciplines are linked closely. Already we see medicine and engineering, mechanical and electronics, Maths and sociology and science and urban planning are linked

What does the child gain

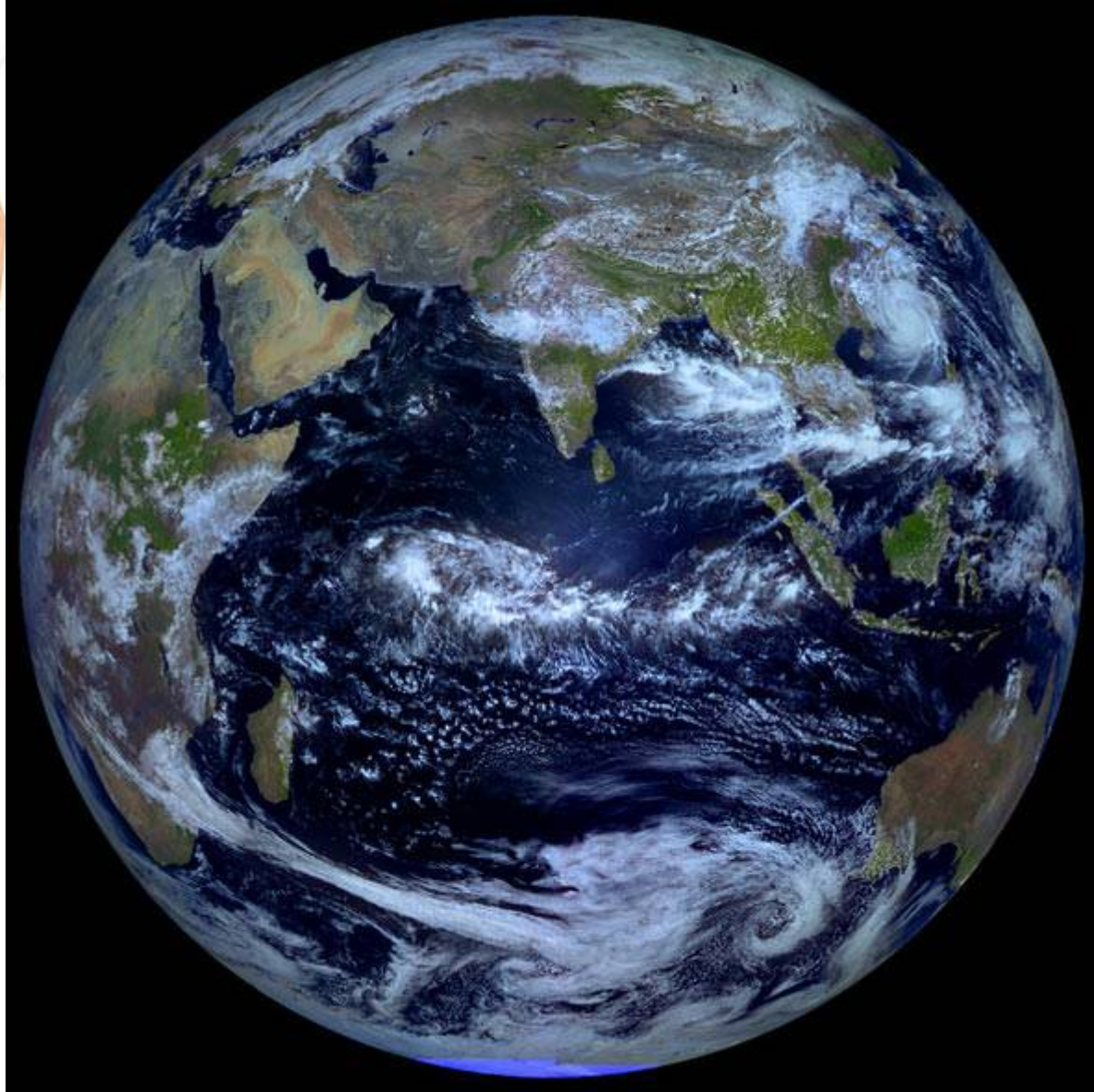
- Problem solving skills in a practical way
- Collaboration with others
- Finding creative and out of the box solutions
- Thinking critically and scientifically
- Looking at problems as opportunities
- A foundation for any career the child might choose : Scientist, Administrator, engineer, doctor, researcher etc

How is it done

- Class of 35 divided into 9 groups with 4 students each
- Each group divided on the basis of learning styles : Linguistic, Visual, Kinesthetic or no dominance
- 3 mentors in a class to guide through the project/challenge
- Linking the chapters being studied currently through a project or challenge (see example)
- Sufficient time given to absorb and apply
- 12 to 15 projects/ challenges in a year each will be done over 2 to 3 weeks
- Optional Home study which the student can do to enhance his level if he so chooses with no pressure to “submit any homework”

An example

- Maths – Numbers Place value , large numbers and Roman Numerals
- Social studies – Latitude and Longitude
- Science – Reproduction in plants & crop production
- The Story: You are a group of aliens from a small planet which is looking for a planet to shift some of their population. They are agrarian and need to be able to cultivate crops. You set out for the Earth which looks most promising and travel Large distances . On your planet you use Roman Numerals to represent numbers. You are carrying various types of seeds of the crops you wish to grow.
- You land on the earth but have no idea how to get about. A Wise man comes on a magic carpet and takes you around. You have to locate yourself on earth based on Latitude and Longitude and find a suitable place to grow your crop. Since you have limited seeds the challenge is to select the right place



ROMAN NUMERALS

I	II	III	IIII	V	VI
1	2	3	4	5	6
VII	VIII	IX	X	L	C
7	8	9	10	50	100
				D	M
				500	1000

