

factor for living in peace. Scientists have, to a certain extent, learned to overcome the limitations of language. The precision of science demands a mode of expression which is concise and admits of only a single possible interpretation. The equation  $E=mc^2$  means the same thing everywhere. It has further advantage of eliminating emotional associations. The drawback, of course, is that it is intelligible only to the initiated.



#### 4.3. Scientific Thinking:

Moreover, science has developed an approach to acquiring knowledge and solving problems which is, so far, the most adequate man has been able to devise. Briefly, the method consists of the following steps:

1. A statement of the problem with all terms clearly defined and limited.
2. Collection of all facts related to the problem by research and experiment.
3. A sifting of the facts to eliminate any which may be irrelevant.
4. Careful observation of the data collected to determine which significant conclusions may justly be drawn.
5. Acceptance of conclusions based on such procedures where or not they are in agreement with previously held theories.

Plane Geometry is usually the first attempt encountered by the student to train the mind to adapt itself to this kind of thinking. It is an introduction to logical reasoning at an elementary level and deals with the properties of familiar figures and their subjects matter.

Geometry probably antedates recorded history, and we know that Babylonians used triangles and parallel lines, and their cuneiform drawings indicated the division of the circle into four and six equal parts. To Egyptians, as far back as 1600 B.C., geometry was a practical science of measurement. The rope-stretchers, who measured square corners by means of twelve knots evenly spaced on a rope, were the

$3^2 + 4^2 = 5^2$    (uses AB and AC)  
(are the same length)

forerunners of Pythagoras who established the theorem which bears his name. The Greeks took this system of measuring plane figures, refined it and generalized it, finally establishing