REVIEW OF RELEVANT LITERATURE

i. Scientific Attitude

Concept definitions and its Measurement

The development of scientific attitude is possible only through conscious attempts to make it happen. To achieve this we should understand what it means. Haney, R (1964). The scientific attitude is an attitude which reflects scientific thinking and to be scientific means that one has such attitude as (1) Curiosity, (2) rationality, (3) Suspended judgment (4) open-mindedness (5) objectivity and (6) humility.

The attitude once developed in the student proves useful in later life of the child.

Apart from this teaching of Science is based on sound psychological footing. The principle activities is the main basis of teaching science and satisfy the instincts of curiosity, creativeness, self assertion, self expression etc. of the pupils.

Dr. D N Dani in his book "Scientific Attitude and cognitive styles" (Pg. No.11) mentioned that Inculcating the scientific attitude and arousing interest in science are two of the major objective of teaching science. The importance of the scientific attitude has been very well brought out by Thurber and Collete (1968 P. 153) in these words: "Attitude develop by young people during their study of science can be as important as the skills they acquire and the knowledge they obtain. Attitude regulate behaviour not only in classroom but in all other areas of human experience Strongly positive attitude permit growth, negative attitude hinder growth, critical attitudes aid in making wise decisions, tolerant attitudes help in adjusting to new situations: In 1935 Gordon Allport (P.810) reviewed over a hundred different definition of attitude and then define it as "A Mental and nerual
state of readiness organise through experiences, exerting a directive or dynamic influence upon individual response to all objects and situations with which it is related”.

**Characteristic features of scientific attitude**

According to Bloom's Approach Scientific are the most important outcomes of science teaching. Sharma (1975) Scientific attitude has a number of characteristic features which distinguish it from other attitudes. A man with scientific Attitude –

I. Is critical in observation and thought
II. In open-mindedness
III. Respects other's point of view
IV. Is curious
V. Is objective in his approach of problem
VI. Does not believe in superstition
VII. Believe in cause and effect
VIII. Adopted a planned procedure to solve problems.
IX. Adopt various techniques of procedure to solve the problem.
X. Selects the most recent authoritative and accurate evidence related to the problem.

If a person has all above characteristic features we can say that he/she possesses the scientific attitude by evaluating all above characteristic scientific attitude can be measured.

**ii. Scientific Interest:-**

Scientific attitude of the teachers directly influence the scientific interest of the students. scientific interest of the students means interest in reading and writing
literature, in scientific hobbies, in activities of science club, in vocational field in nature and accept problem in hand. Once the interest in the pupils is aroused, the learning become easier.

The Review of related studies is useful to understand the problem and to map out the different aspect of the problem. A few investigators have attempted to conducted the research in the realm of scientific attitude in India and Abroad.

Sood J.K (1974): Studied the attitude towards science and scientist of students and teachers and found that the teacher and students who understand science have a positive attitude towards science and scientist. Scientific attitude was quite different among the teacher’s students and there were no significant difference in the scientific attitude of male and female.

Ghosh (1996): Studied the relationship of scientific attitude to the scientific interest and academic achievement. Study found that there were no significant difference in the scientific attitude of the boys and girl. Urban students were not better in scientific interest in comparison to rural but Urban boys were better in scientific interest in comparison to rural. There were positive correlation among scientific attitude, scientific interest and academic achievement.

Gopal Krishan, D (2001) Studies the attitude of teachers towards science and found that science teacher's have more + attitude in comparison to the other than science teachers. Male teachers have more + attitude is comparison to the female. There were no significant differences between the male and female teachers as well as in male science and teachers while Female science teacher have high attitude in comparison to arts teacher.

A.C. Lohman and P.A. Vitti (2006) studies the life science concept and its educational implication on 700 biology students. They found in the result that by
the life science study students are able to develop concentration, thinking and will power. By the use of interval practices Chemical balance is also develop in them. Anger, greed and fear can be controlled by Prekhyadnyan exercise and it is helpful in total personality development.

Nell P. Morris, Luke Ramsay, and Vikesh Chauhan (2011) study that can a tablet device alter undergraduate science student's study behaviour and use of technology? This study investigating undergraduate biological science student's use of technology and computer devices for learning and the effect of providing student's with a tablet device. A controlled study was conducted to collect quantitative and qualitative data on the impact of a tablet device on student's use of devices and technology for learning. Overall, they found that student's made extensive use of the table device for learning, using it in preference to laptop computers to retrieve information, record lectures, and access learning resources. In line with other studies, they found that undergraduate student's only use familiar web 2.0 technologies and that the tablet device did not alter this behaviour for the majority of tools. They also conclude that undergraduate science students can make extensive use of a tablet device to enhance their learning opportunities without institutions changing their teaching methods of computer systems, but that institutional intervention may be needed to drive changes in student behaviour towards the use of novel web 2.0 technology.

Termitkaur Ranjitsingh , Abdul Rashid Mohamed (2012) studied secondary students prospective on the use of the interactive whiteboard for teaching and learning of science in malasiya. This study which was exploratory nature, aimed at gaining inside into student perspective in the teaching and learning of science using the interactive whiteboard technology. Interviews were also carried out during lessons in class room of three selected school the study shows that the
interactive whiteboard can motivate the student as well engaged them with the teaching and learning process. The appropriate use of the IWBs promotes in increased class room instruction. The introduction of IWBs into the classrooms effects much more than the physical installation of the board and software. Results from this indicates that students interect more in classrooms where technology is used effectively.