

Preamble:

I am not a professional Educationist. Professionwise I am a teacher. But while teaching ^{several} ~~certain~~ inputs ~~were~~ are received on variety of topics if you are ~~not~~ which sometimes go unnoticed but some of them to ~~my~~ do get registered on the teacher's unconscious mind. Two such inputs resulted in moulding my thoughts as an Educationist

(1) Bhagabhai's son

(2) F.Y. B.Sc. student.

1 Cultural Heritage: It was easier for me to turn to Mathematics Education.

Have we no cultural heritage in Sc. and Techno.?
If we look at the way science is taught in our schools these days, we may tend to believe, the answer seems to be No.

But I am not going to describe the wrong points in our present education, especially Sc. education.

I would rather spend time in describe what it should be like and how to bring about the change

2. Environment and Science

The basis on which a sc. edu. of a child in primary school is to be laid, is formed by certain awareness about nature and about nature of things ~~in our~~ ~~round~~ ~~the~~ which a child acquires by the time it attains the school-going age. This awareness is of the following types

- (1) Trees, flowers, leaves, their growth, good smell of flowers, thorns . . .
- (2) Little animals with which one can play & birds, animals of which child is afraid, cows, buffaloes, bullocks . . .
- (3) Heat, fire, flame, hot, cold, bright, dark . . .
- (4) Sky, stars, the Sun, Moon, crescent, "Moon moves with me" . . .
- (5) Cart, Tonga, train, Cycle, motor or bus . . .
- (6) Getting hurt, scatch, oozing blood, coughing, vomiting . . .
- (7) Cinema, radio, Scooter, Electricity, . . .

(8) Wind, rain, clouds, thunder, lightning.

In our scientific terminology we say the ~~bas~~ primary science-information of a child relates to Physics, Botany, ~~Botany~~, Zoology, Astronomy, and human body. The main point to be noted chemistry does not normally occur in the above list.

Our science-teaching must be based on this pre-derived information of the child.

3. Aim of Science-education at elementary level

~~Three types of capacities which are ~~shown~~ already present in the child at this stage~~

Aim of science education should be to strengthen ~~the~~ three types of capacities which are already present in the child in varying degrees

I (1) Power of Observation

(2) ~~Capaci~~ Tendency to correlate two observations

(3) Classification of different observations

II Power of Imitation

(1) Experiments in science are essentially exercises in imitating Nature

(2) To test the veracity of information by self-experience

(3) To plan experiments to quantify out qualitative information

III Generalization and Abstraction

In Primary education I is very important. It should be sufficient to lay the foundation of II and it The teacher should keep III in view while encouraging I and II