

There is no difference in the aims of what is here called "elementary science" and what is called "nature-study"; both are intended to give the children the beginnings of scientific method rather than to teach them a systematic science.

In schools with two or more teachers the head teacher shall draw up and show to the Inspector a program of a definite course in nature-study and elementary science taken in the Junior and Senior Divisions.

Suggestions for drawing up programs in nature-study and elementary science will be found in the Appendix.

GEOGRAPHY.

Physical Geography.

33. This part of the subject should be based as far as possible upon the actual observation of natural phenomena by the children; where the actual phenomena themselves do not come within the range of the children's observation, models should be used if possible. Pictures rank next in value to models. Models of wet sand or clay or plasticine form an extremely useful means of instruction, and in most cases it will be an advantage for the children to make such models themselves, either from their own observation or from the teacher's copy. Carefully selected pictures taken in conjunction with maps form a good vehicle for lessons on subjects lying more or less outside the children's experience. The more remote the place, or the less familiar the subject, the more necessary is the use of pictures or of other auxiliaries. (Various series of hand-pictures for class use are issued free to schools by the Education Department.) The children should be taught to make maps or plans of the district from their own measurements, increasing in exactness from year to year, with a view to making them understand how maps are made. As an instance of what is meant, the children in the early stages might be taught to measure approximately, by pacing, the length and breadth of the playground, the distance from their homes or other well-known points to the school, &c.

The mathematical geography will be of far more value if it is based upon actual measurement and observation, and if drawings and models are made to illustrate the facts observed, so that the children may gain thereby clear conceptions of the daily and yearly movements of the earth, of the seasons, and of such phenomena as tides and eclipses. The action of rivers can be studied from nature in the neighbourhood of almost every school, and even the effect of a shower of rain as seen in the playground or the public road may be utilized for this purpose. The action of the sea and of ice and snow may in some cases be learnt first-hand; if that is not possible, models and pictures should be used.

Some of the physical phenomena lend themselves to illustration by experiments—*e.g.*, the fact that warm water floats upon cold water, and that a block of ice floats in water with the greater part of its bulk below the level of the surface of the water; the most obvious facts in regard to evaporation and the condensation of vapour on a cold surface; and so on.

Simple weather records should be kept in every school, and should lead up to an elementary treatment of the climate of various parts of the earth. The chief minerals, plants, and animals of various countries should be known, a collection of pictures and a school museum being useful adjuncts in this connexion.

As in the case of other portions of nature-study, the teaching should have reference to the surroundings of the school, and the scheme of work should be drawn up accordingly. The suggestions in the Appendix will indicate the kind of work that is intended to be done under this head, but any suitable program may be accepted by the Inspector.

Political Geography.

As physical geography is a part of nature-study, so political, social, and commercial geography is one of the most important branches of humanistic study in the school, akin in its effect to the study of history, and probably easier in many ways for the children to grasp. The object should be to give the children a knowledge of the British Empire and of the chief foreign countries, so as to arouse an intelligent interest in human life in its varied aspects, and to show, as far as it is possible for the minds of the children to see it, the connexion between natural conditions on the earth's surface and the civilization of man. Here again pictures form a most valuable means of instruction; stories of travel (especially if well illustrated) and school museums serve useful purposes also. Globes and good maps should be used constantly, and the pupils should acquire the habit of making their own simple sketch-maps, and of drawing maps to scale. Elaborate copies of maps in detail, however, are more or less waste