

fields. While together, we dealt with many things from all three fields.

The value of the specialized work in the various fields will be obvious to anyone. But the time spent together, whether in semi-formal discussions with outstanding world figures in education, science or mathematics, or whether in informal discussions with each other, had values of many different kinds - values which, in some cases, would be more difficult to measure, but which, in practically all cases, were tremendous. No effort was spared to bring us leaders in every field, Nobel Prize winners where possible; nor was any effort spared to take us to the finest research laboratories. These included the High Energy Physics Laboratory (Stanford), Radiation Laboratory (University of California at Berkeley), Plant Biology Laboratory (Carnegie Foundation), Computer Laboratory, Radio Astronomy Institute, and others no less exciting and inspiring in various areas of chemistry.

The opportunity to participate in such stimulating study and exchange of ideas is one which would serve Alberta teachers well.

EXPERIMENTAL CLASSES IN GRADE VII MATHEMATICS, by L. C. Pallesen

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Under the direction of the Junior High School Mathematics Subcommittee of the Department of Education, ten Calgary Grade VII classes took part in experimental work in mathematics. They were part of a group of 30 classes over the whole province using a new text, Seeing Through Mathematics, published by W. J. Gage, Ltd. The publishers have designed this text to be a sequel to the Seeing Through Arithmetic series which has recently been authorized for the Alberta elementary schools.

Because of the authorization of this new series in the elementary schools the Junior High School Mathematics Subcommittee feels it must consider the changing of the junior high school text. It would be the hope of the subcommittee that a text might be found which would continue to develop ideas along the lines of the elementary texts and would at the same time introduce some of the ideas of the "new" or

"modern" mathematics. Because of the emphasis on change in mathematics at the present time many of the publishers are working on revisions, most of which are not yet published. The subcommittee is examining all these publications as soon as they are available, and hopes to try in classrooms any texts that seem on examination to be suitable to the Alberta situation. The current Calgary experiments are part of this program.

Seeing Through Mathematics differs markedly from the text presently authorized. Rather than start Grade VII with a review of the basic operations of mathematics, it introduces a completely new area - the symbolism of sets. Once this symbolism is introduced it is consistently used to deal with geometric ideas and algebraic topics. A great deal of stress is placed on exactness of expression with emphasis placed on the distinction between numbers and numerals, on the meaning of open and closed sentences and on inequalities as well as equalities. The authors claim that, in their treatment, students become much more proficient in problem-solving than in traditional courses.

To attempt to yield a maximum amount of information the ten Calgary classes were chosen to include all levels of ability. Several of the classes were heterogeneous groups including students of all abilities others were homogeneous with both the top end and the bottom end of the ability scale being represented. Furthermore, approximately half the teachers had recently completed a university summer school course on modern mathematics, including the set theory, while the other half of the teachers had had no recent courses in mathematics.

The experimental use of this text was planned to continue for a four-month period ending about January 31. At that time most of the teachers returned to the traditional text for the balance of the year. However, four Calgary classes have been granted permission to continue the use of the text until June, 1962. The number of classes which continued would have been larger had it not been for the administrative difficulties caused by pupil transfers, since new students could not conveniently be placed in these classes.

During the period of the experiment teachers have met twice monthly to discuss any mutual problems and general progress. Each of the participating teachers is being asked to complete a full questionnaire

dealing with pupil progress and pupil reaction to the course as well as stating their own appraisal of the strengths and weaknesses of the course. Inasmuch as all these questionnaires will not be examined until the next meeting of the subcommittee no general reaction is yet available. As might be expected the enthusiasm of the ten participating teachers varied considerably. To judge the text on the basis of the four-month experiment will be difficult, not only because of the shortness of the period of time and the newness of the material, but also because the text is designed for graduates of an elementary program using the Seeing Through Arithmetic series.

Present plans in the city of Calgary schools include the introduction of the Seeing Through Arithmetic texts for Grades I to IV in all schools in September, 1962. The series will be extended to Grade V in September, 1963 and to Grade VI in September, 1964. This suggests that before September, 1965 it would be desirable that the junior high school subcommittee reach a decision. The present Calgary experiment is an attempt to assist in this task.

ELEMENTARY ARITHMETIC FILMS

Donald in Mathmagic Land, T-1397, (30 minutes)

A general interest film showing many applications of mathematics.

Today's Need in Arithmetic, (14 minutes)

An extremely well-prepared film but highly commercialized - gives a reasonably good general introduction to the Seeing Through Arithmetic series.

The following five films were prepared by Scott, Foresman and made available to the Audio-Visual Aids Branch by W. J. Gage Ltd. The production standard in these films is rather poor. The main personality in the films, Mr. George Russell, was asked to speak on the Seeing Through Arithmetic series at a teachers' institute in New Mexico. On his arrival he discovered that arrangements had been made to record all his talks on film. Mr. Russell was not prepared for this kind of an assignment and, as a result, the finished product is not the best from a technical point of view. It is true, however, that the content of Mr. Russell's talks will prove very valuable to teachers in inservice programs.