

GENERAL SCIENCE

News From Science Clubs

► TWO UNUSUAL projects of Science Clubs of America affiliated groups are reported this week.

To introduce weather to Junior High School students, the 120 club members from the 7th and 8th grades at RAYMER SCHOOL, Toledo, Ohio, released 150 balloons from their school grounds on Nov. 2. That day the winds were out of the southwest at 25 miles per hour, with barometric pressure of 29.02 and rising, and the temperature was 76 degrees Fahrenheit. A card was attached to each helium-filled balloon. The objective was to introduce the subject of weather, to trace the wind currents over the city and to find the path any radioactive fallout might take. Nine cards were returned within five days. Their landings were rather surprising. The longest any of the balloons stayed in the troposphere was about 18 hours. One card was returned from Trout River, N. Y., 500 miles away. A scaled map of landings and distances was prepared. The findings established a very

fine southeasterly flow of wind. The project cost was \$21.53.

The PESEATAQUIS COMMUNITY SCHOOL SCIENCE CLUB, Guilford, Maine, started a Community Science Poll last year as an activity to create better public relations for their school and club. The members have developed a series of surveys using questionnaires consisting of short everyday questions about science. These are distributed four times each year and administered to three sections of the populace: professional, skilled and non-skilled. This year the surveys will be in physics, chemistry, biology and earth science. The results of the 1960-61 survey showed an overall score of 83.4 out of a possible 100 with 154 adults tested. The idea was well received and the number tested will be increased this year.

Send reports on your club activities to Science Clubs of America, 1719 N Street, N. W., Washington 6, D. C.

• Science News Letter, 81:31 January 13, 1962

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Suggestions for Projects

► HUNDREDS of thousands of elementary and secondary students will exhibit their science projects this spring to millions of people. Fairs in schools which lead to local, regional and state fairs will culminate in the 13th National Science Fair-International at Seattle, Wash., May 2-5.

This growing interest in science and technology during the past decade is the exciting advance which science has made and is projecting. Students gain scientific knowledge by experimenting and presenting the results of their work as a project.

An experienced exhibitor as well as students starting a project for the first time will find the following suggestions helpful:

1. *Selecting a project*—The most difficult part of preparing a project for most students is the selection of the area for research and experimentation. Project ideas may be secured in many ways—from discussions and listings of projects, newspaper stories about scientific developments, write-ups of winners of science fair projects and research problems, by extensive reading of recent scientific periodicals and books.

2. *Read widely*—Your success with science projects depends largely on how much you know about your subject. Wide reading broadens your understanding of the possibilities and limitations of your project. Search your school, college and nearby university, public and specialized libraries for publications in your project field. Librarians are most willing to help you.

3. *Question others*—Scientists draw heavily upon the knowledge of others in their own and related fields. Acquire the habit of consulting with others about your plans. Often a classmate or an adult can point out an error in your thinking or suggest a method

which might take you many hours to detect otherwise. Professional scientists and technicians are always glad to help answer your questions if you follow simple rules of courtesy such as querying them when they have time to answer and questioning them only when you have done enough reading and thinking to be able to ask intelligent questions. If you do not abuse their kindness you may, like other young scientists, find adults eager to lend you not only suggestions but also equipment, books, publications, etc., that you might not otherwise be able to secure. It even helps to talk over your project with an intelligent person who knows nothing about your work. In attempting to explain it to him you will be forced to clear your own thinking, and his questions may point out areas that need more attention for the sake of clarity.

4. *Plan carefully*—Scientists save much time and money by planning so thoroughly that the actual experimenting goes through with a minimum of failure. Try to anticipate the difficulties you will encounter, and forestall as many as possible by deliberate planning.

5. *Experimentation*—Set up effective controls and keep complete records of all your work, both successful and apparently unsuccessful. Study carefully regulations regarding experiments with animals. Record data and draw correct conclusions.

6. *And some don'ts*—Don't write some organization to send you everything on the subject, or expect the staff to do your project for you.

Don't tackle such a large project that you have time only to build the instrument you plan to use.

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SCIENCE BARGAINS

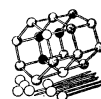
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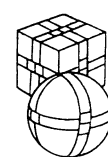
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