

cottony summer cloud) exposes all three layers, capturing all the dyes, leaving no color that will move to the positive. When all three dyes reach the surface, they form spots of black corresponding to parts of the film that have received no light at all.

When the released dyes reach the surface, they hit a sheet of white paper coated with large, stationary molecules of an acid material. The molecules clutch the dyes as they arrive and form them into a tough, many-colored surface that reproduces the colored image focused by the camera's lens. The picture needs no further treatment.

Polacolor represents the logical realization of Polaroid's instant developing method used on its black-and-white film with previous attempts at gaining better color prints.

## GENERAL SCIENCE

## News From Science Clubs

► COMMUNITY and science fair activities share the spotlight in recent club reports received by Science Clubs of America at 1719 N Street, N.W., Washington 6, D. C.

THE HENRY HUDSON SCIENCE EXPLORERS from Junior High School #125, Bronx, N. Y., are helping their two sponsors make a check list of the fauna and flora of the community and set up a natural wildlife display case.

THE BUSTLING BEAVERS SCIENCE CLUB, Lower Beaver Creek School, Lewiston, Mont., conducted a community cleanup in connection with conservation.

THE BI PHY CHEM CLUB from the South Berwick High School, South Berwick, Maine, has a nature trails project in cooperation with the local state park and THE BIOLOGY CLUB, Liberty Central School, Liberty, N. Y., is organizing one for elementary students.

THE EXPLORERS from Carver Smith High School, Columbia, Tenn., held a Science Symposium for the public. The club presents annual scholarships to outstanding science students in the school.

THE N.S.H.S. SCIENCE CLUB of Naples Senior High School, Naples, Fla., has classified and labeled all the plants on the city's Main Street and received an award from the State Audubon Society.

BIO-SCI members of St. Aloysius High School, Shepherdsville, Ky., completed the Red Cross Home Nursing Course. The club is another that is active in both Science Clubs of America and 4-H Clubs.

Any adult leader may affiliate his or her 4-H Club with Science Clubs of America. This also applies to math, engineering and other groups with science interests.

The ALBERTUS MAGNUS SCIENCE CLUB, St. Mary High School, Paterson, N. J., recently visited the Passaic Valley Water Commission. This trip was to inform students about the problems of water supply and its distribution and to help students appreciate water, a vital natural resource which so many take for granted. More such field trips are planned for the benefit of members.

The members of THE SCIENCE AND ENGINEERING CLUB of Serra High

Kodachrome represented a major improvement in color photography when first introduced in 1935. It had on one film the many layers which do all of the three-color separation work, and made color photography a one-color exposure process.

Kodachrome was a big step ahead from the previous arrangement, the three-color separation process, which called for three separate pictures taken at the same time. The process was clumsy and limited the camera to still subjects or required the use of a special expensive camera that could take all three at once.

Kodachrome was followed by Anscochrome, which allowed the small laboratory to do the color processing.

• Science News Letter, 83:250 April 20, 1963

School, McKeesport, Pa., are participating in a school science fair and qualifying exhibits will be entered in the regional fair.

Promotion of a school science fair, camping trip and other field trips are the joint effort of the ASTRONOMY CLUB, CREEPY CREATURES CLUB and CRUCIBLE CLUB of the Lincoln Junior High School, Santa Monica, Calif.

SENIOR SCIENTISTS of the Jackson Junior High School, Jackson, Tenn., help conduct and set up the local science fair and serve as laboratory assistants.

• Science News Letter, 83:251 April 20, 1963

## GEOLOGY

### New Moon Map Covers 400,000 Square Miles

► A NEW WAY of "seeing" the moon was reported by Robert J. Hackman, of the Department of the Interior's Geological Survey in Washington, D. C.

He reported that the Geological Survey is preparing what is called an "isotonal" (equal-tone) map of approximately 400,000 square miles of the lunar surface. Measuring different tonal values on photographs of the moon, Mr. Hackman explained, would overcome the inability of the human eye to recognize equal tone values in different surroundings. He said that the measured isotonal map could provide valuable clues as to the differences in certain characteristics of the surface of the moon.

Mr. Hackman said that many scientists consider such areas as the lunar maria ("seas") as having uniform characteristics, for the human eye is unable to perceive differences in their reflectivity. Measuring their tones on a lunar photograph, however, clearly demonstrates that the lunar maria are not uniform in reflective characteristics, and thus may vary significantly in chemical or physical form.

He pointed out that the differences in tone values on moon photographs do not all relate to topographic form. This is partly in conflict with the current uniform dust theory.

• Science News Letter, 83:251 April 20, 1963



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