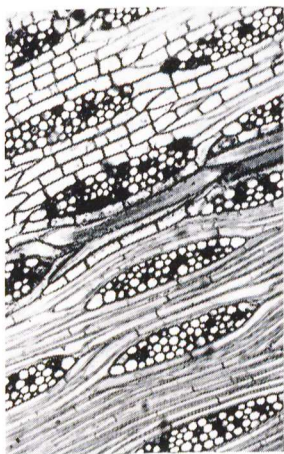
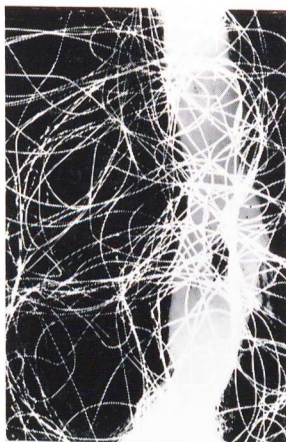


Kodak



PHOTOGRAPHY IN EDUCATION

The role of photography



The role of photography

In this leaflet we hope to suggest some of the fields of education in which photography can be of value. The camera can be a tool in the hands of both teacher and student, for producing visual aids, recording activities and capturing movement, as well as providing an outlet for creative talent.

As a visual aid

Visuals are a means of communication readily acceptable to children, who are already adjusted to receiving information through media such as film and television. Information presented visually can command far greater attention than that imparted through the spoken or printed word alone. A visual illustration coupled to a verbal description, can considerably reduce the time required to assimilate information, as well as helping to avoid ambiguity and hence misinterpretation.

A class is made up of individuals, and a good visual will provide a common link between them, and get them all thinking along the same lines. Good visuals can define precisely what the teacher is talking about, where a verbal description would be lengthy and complex, and hence difficult to understand. Pictures can overcome language difficulties and be of great value when a language is being taught. They may be used as object illustrations, as a sequence with commentary to tell a story, or as a stimulus for new information.

For greatest effect the visual should appear first, closely followed by the accompanying sound, which should relate entirely to that visual. A visual need not complete a message itself but may be used to stimulate interest in a subject by providing the initial impetus for a more extensive investigation. As an aid to memory, the substance of a visual is more easily absorbed and recalled than the spoken word.



Detail of Patricxbourne church c. 1140

Effective visuals

Visuals need careful planning so that the message they convey is clear and immediately obvious. The picture must show only the essentials, there is no room for "pretty" pictures which have no definite message, and become merely a useless diversion. For an even more effective visual presentation, sound, in the form of tapes or records can be added to the pictures. The production of good visual aids requires time, imagination and careful preparation, but the saving in terms of sustained interest, speed of learning and store of useful visual material, can make the effort really worthwhile.



Great Tit in Flight. Taken with "Dawcourt" equipment at 1/10,000 second.

A variable time scale

One of the greatest advantages of photography is that the camera can retain an image when the eye cannot. Photographic techniques enable movement to

Creative photography

The obvious place for photography in the school is a school camera club. However, some of the creative work done by the children in their own time, may also be useful in the school, for example, in the art class. Children who are less able academically, or who cannot express themselves in other art forms, may find an outlet for their talents in taking photographs. A discussion of the factors affecting picture taking, such as light, texture, shape, colour, depth-of-field and viewpoint, as well as the placing and framing of the main subjects, can help to develop an appreciation and critical awareness of the work of others, as well as helping the children's own efforts. An art teacher may also employ photographs to illustrate the study of perspective, shadows, proportions, etc.



A camera club is the ideal place to teach photographic techniques, and can have competitions on many different topics to give everyone a chance to express their individual ideas. The special effects which can be produced by screening, changing developing and printing times, masking, or multiple printing, and the

making of photograms, again help to stimulate the imagination and encourage experiment. All this type of work is designed to develop a child's creativity, often with some startling and highly professional-looking results.



Student teachers at Whitelands College, Putney.

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In some schools it may be possible to introduce photography as a curricular subject. As a subject for study, photography embraces a variety of disciplines, from scientific theory to creative art, including history, physics, chemistry and a great deal of experimental and practical work. For some students, who find they have an aptitude, photography may prove to be not only a new and interesting subject for school study, but a real consideration for a future career.

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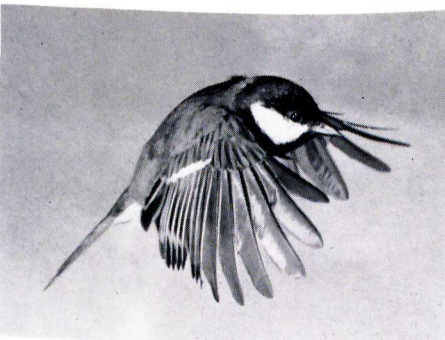
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A variable time scale

One of the greatest advantages of photography is that the camera can retain an image when the eye cannot. Photographic techniques enable movement to

be frozen, so that positions lasting only fractions of a second may be studied at leisure. Alternatively, continuous movement may be slowed down or speeded up with the aid of a movie camera. Processes which move so slowly as to be undetectable on a normal time scale, come to life on a movie film, where frames can be taken at any desired time intervals to compress many hours' or weeks' progress into a few minutes. At the other end of the scale, the motions of an athlete, a bird in flight, or a piece of machinery, moving too fast for detail to be visible to the naked eye, can be slowed down so that a complete analysis of the action may be made.



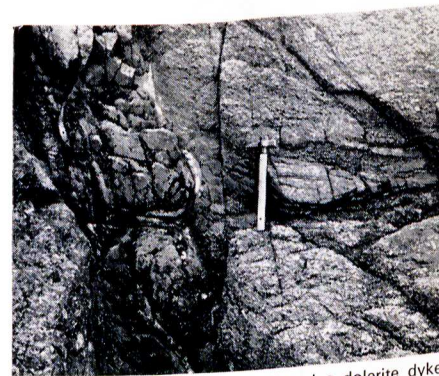
M. C. Campbell demonstrating the straddle at 6' 6"

Accessibility

Another problem which may be overcome with the aid of photography is that of inaccessibility. For example, illustrations of trips abroad can enliven the geography class, and give greater meaning to written descriptions of places that the student may not be able to visit in person.

Keeping a record

One of the more common uses of photography in the school is the making of a permanent record of some school activity or event. In addition to the usual photographs of sports days, the school play and speech days, the children can use a camera to make a photographic record of their own individual projects. It is much easier



Junction between a dolerite sill and a dolerite dyke. Isle of Sark, July 1966. Hammer gives scale.

for children to observe and remember a visit if they have had to make a pictorial report. Looking through a viewfinder to find suitable subjects for their pictures will teach them to look more closely and so increase their powers of observation. Later, when the films have been processed, the prints or slides will help to refresh their memories and revive interest. Individual or group projects on a variety of subjects can benefit from photography, for example, a geology or geography student's field trip, for which a camera is vital if a comprehensive report is to be made. The use of a photograph, such as the one shown, allows the recording of much detail which it would be tedious to attempt to reproduce in any other way. Also, the use of a photograph allows extensive examination of the phenomenon much later on, when information not immediately apparent in the field, may be obtained.

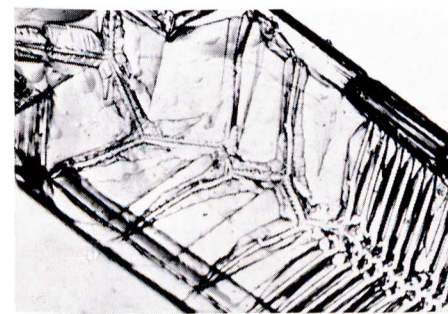
Photography in science

In learning science, children can again use a camera to aid their understanding. In addition to high-speed and time-lapse photography, both important in studying the physical sciences, still photographs can be extremely useful. Quantitative results, which would otherwise require complicated measuring devices, can be obtained from still photographs. An example of this occurs in the study of dynamics, where the trajectory of a white ball may be



Stroboscopic picture of ball thrown into the air.

photographed at points along its path of motion using stroboscopic illumination. Measurements made from these pictures provide convincing proof of the laws of motion. Other examples include photographs of interference experiments, cloud-chamber tracks and photomicrography. An interesting study of the stars and planets can be made by employing a camera with a time-exposure device. If a very long exposure is made on a clear night, with the camera in a fixed position, it is possible to measure the tracks of stars across the sky in a given time interval.



Photomicrograph of corundum crystal magnified about 40 times.

Photo-plays

A photo-play of a school journey or activity, made by the children, can provide a refreshing viewpoint, showing those features that the children consider interesting or particularly relevant. Creative photo-plays that tell a story require careful planning beforehand, and teach children to work as a group, each child having a specific responsibility, whether as a cameraman, an actor, a scriptwriter, a stage hand or a director. Children are very critical of their own work, and with encouragement can produce excellent results.



Part of a photo-play made by Thomas Bennet Comprehensive School, Crawley, Sussex.

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