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Applying a knowledge of chemistry to develop cyanotype images

Developing cyanotypes is a great way for students to apply a knowledge of chemistry and make links across disciplines. In this project, the focus was on developing the method to print cyanotype images. A digital negative was created using Photoshop (Figure 1) and printed onto an acetate sheet. The negative was then placed on to photosensitive paper and the Sun was used as a UV light source to print the images (Figure 2). Students varied the light exposure times, and the cyanotypes were compared. Students used their research skills to write up reports, achieving CREST awards.

The project served as a direct application of redox chemistry, and it promoted self-directed learning and inquiry from an early age. Future work will explore alternative photographic techniques, including the development of black-and-white photographs using environmentally friendly methods.



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Conclusion: Students developed research skills and achieved CREST awards to successfully create digital negatives and print images using UV light onto photosensitive paper.



Figure 1: A digital negative created using Photoshop which was then printed onto acetate



Figure 2: The acetate was placed onto photosensitive paper and printed using UV light from the Sun.