

Sheffield Hallam University

Design & technology education takes place in the School of Cultural Studies where students following teacher education courses have access to the wide range of facilities available to all students studying design subjects. Specialist facilities are also available for professional aspects of courses. We offer the following courses:

- Three-year BSc. or BSc.(Hons) in Design & Technology with QTS for students with A level or BTEC qualifications
- Two-year BSc. or BSc.(Hons) in D&T with QTS for students with HNC/HND qualifications
- Two-year PGCE for students with a degree not directly related to D&T, such as Fine Art or Computer Studies
- One-year PGCE for students with a degree related to D&T, such as Product or Industrial Design.



The following examples illustrate the range of project work covered in our courses.

A child wander alarm

Several companies manufacture systems which warn parents when a young child in their care wanders off; these alarms work satisfactorily, but the parent is left looking for the child, who is unaware that he/she is lost. This obviously makes children vulnerable to abduction. Suzanne's system features an alarm on the child's apparatus too, so that once the child has strayed, the alarm sounds on both the parent's transmitter and the child's, alerting the child (and other adults in the vicinity too). The system consists of a binary coded radio link with a preset transmission range of 30-40 metres in built area and up to 60 metres in the open. The child receiver belt consists of the battery pack, receiver, decoder and alarm.

Baby Box

The baby box was designed to meet the need for a portable unit to assist babies with breathing difficulties. The project was a joint venture with Sheffield Children's Hospital, since although portable units do exist, they offer poor ergonomics and access to the baby. Following consultation this design emerged, offering access not only through the circular side hatches, but also via the top and front if necessary. As this project is medical, the quality of manufacture had to be to exacting standards, with the acrylic polished to a fine finish, for example.

Canoe Paddles

Existing canoe paddles are shaped to provide an effective push against water, and although they work well when propelling the canoe forwards, they can only be used in reverse if they are rotated through 180 degrees. This project explored both paddle design and materials and resulted in a frame for the paddle blade with a flexible diaphragm held in tension. When in use, the diaphragm distorts to produce a spoon shape, improving the efficiency of the blade. As the diaphragm can flex in both directions, it works equally well for backward and forward motion. The frame is made of carbon fibre and resin material with sheet neoprene for the diaphragm.

A child wander alarm designed by Suzanne Robinson as her final project in a 4-year BEd.(Hons) course

Baby Box by Don Brunson, a student on the 2-year BEd. course

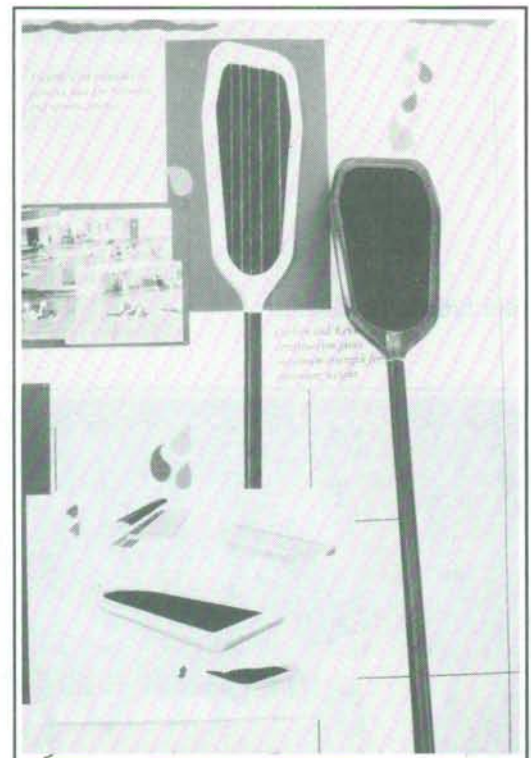
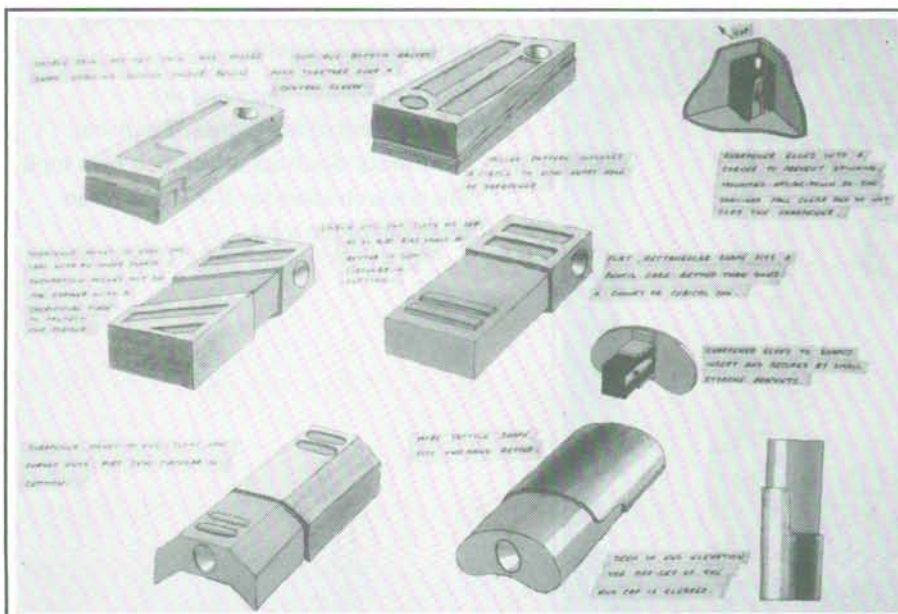


Pencil Sharpeners

The starting point for this project was a plastic pencil sharpener which had to be incorporated into a casing to hold the shavings. The emphasis was on producing an attractive product using techniques readily available in school — in this case, vacuum forming. The illustration shows some of the design work for the final product, which was made by vacuum forming over an MDF former, with the lid also vacuum-formed over the body of the sharpener. This ensured accurate fitting of the two parts, and the method has been used successfully by pupils.

Tim Lewis

A project by Andrew Blackshaw, featuring pencil sharpeners, for his INSET BEd.



Des Jones's design for a canoe paddle, the final project in his 2-year BEd. course