## ZESZYTY NAUKOWE

## WYŻSZEJ SZKOŁY PEDAGOGICZNEJ W BYDGOSZCZY

Studia Techniczne z. 19

## III. EDUKACJA TECHNICZNA ZA GRANICĄ

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## DESIGN AND TECHNOLOGY EDUCATION IN ENGLISH SCHOOLS

Technology in the creative application of knowledge, skills and understanding to design and make good quality products.

This idea has been indicated as very important and implemented in the National Curriculum for teaching technology education in English schools. This approach is similar to one represented by the Ministry of Education in respect to teaching design and technology in Polish schools.

In order to fulfil these requirements, technology education teachers suggest that pupils need to develop a capability to apply technological understanding to unfamiliar situations (technological know-how). Pupils are encouraged to use an increasing range of techniques, processes and resources with confidence, to show creativity in designing different products. They are given a chance to work both independently and as part of a team. Alongside, students are expected to achieve high standards of work. However, it is easier to achieve these goals in England because workshops are well equipped and organized.

A technology lesson according to the National Curriculum in England consists of four key stages: identifying needs and opportunities, generating a design, planning and making, and evaluating.

In each key stage pupils should be able:

- to identify and state clearly needs and opportunities for design and technological activities through investigation of the contexts of home, school, recreation, community, business and industry;
- to generate a design specification, explore ideas to produce a design proposal and develop it into a realistic, appropriate and achieveable design;

- to make artefacts, systems and environments, preparing and working to a plan and identifying, managing and using appropriate resources, including knowledge and processes;
- to develop, communicate and act upon an evaluation of the processes, products and effects
  of their design and technological activities and of those of others, including those from other
  times and cultures.

In each key stage students design and make:

- artefacts (objects made by people),
- systems (sets of objects or artivities whitch together perform a task),
- environments (surroundings made, or developed, by people); in response to needs and opportunities identified by them.

Pupils work with a range of materials, including textiles, graphic media (such as paint, paper, photographic), construction materials (such as clay, wood, plastic, metal, and food). During design and technology lessons pupils draw on their knowledge and skills in other subjects, particularly the foundation subjects of science, mathematics and art. It is very important as this knowledge supports their designing and making activities. Pupils also learn how to discuss their ideas, plans and progress with each other.

English teachers suggest that quality of learning relies on how the knowledge and understanding of design and technology is transmitted, received and translated into practice. Of central importance is the development of stimulating projects, tasks and lessons for the pupils. Effective design and technology best takes place in an environment where the outcomes on high quality designing and making are visible to influence pupils own products. Pupils need to be clear about what they are setting out to achieve.

I can say that design and technology is one of the foundation subjects in the English National Curriculum and it helps in choosing future career. Although workshops in Polish schools are not as well equipped as they are in England, the subject is also considered as very important, as it enables students to make decisions concerning their future careers.

The way Polish teachers organize and conduct lessons is very similar to what I have observed in English schools.