

7 Using time in different ways

7.1 Time in the timetable

The Dearing Review indicated a notional minimum of 63 hours of design and technology within Key Stage 3. You may of course, be able to negotiate more time than this. Across a 36-week year this is one and three-quarter hours per week, which is likely to be two double periods per week in many timetables. What is the best way to organise this time so that you and your students can have an enjoyable time and make good progress? There are two main approaches each with benefits and drawbacks.

A divided approach

The time is shared equally between the resistant materials/control elements of design and technology and the food/ textiles elements of design and technology, with each pair of elements receiving one double period per week- So as a block diagram it looks like this.

The teaching of a single class across a year

Resistant materials unit (with teacher A)	Control unit (with teacher A)
Food unit (with teacher B)	Textiles unit (with teacher B)

The benefit of this approach can be that a single teacher can teach a class continuously across the year for one double period per week, provided the teacher can operate successfully across the paired elements. If this is the case, there is also the advantage that the end point for a Capability Task is flexible as the class will move on to the next Capability Task with the same teacher.

The drawbacks of this approach are: it implies four Capability Tasks in a year; for best effect it requires that teachers operate successfully across the paired elements (which often is not the case); that it divides the department in two (in many cases along gender lines) and will make communication across the department more difficult to sustain.

A circus approach

The students spend all their lesson for a set period of time working with one teacher on a single unit of work on a particular element of design and technology, say food technology or control technology. They then move to another teacher for the next unit of work and so on throughout the year. So as a block diagram it looks like this.

The teaching of a single class across a year

Teaching of Food Technology Unit (With teacher A) C)	Teaching of Control Technology Unit (With teacher B)	Teaching of Textiles Technology Unit (With teacher
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The benefits of this approach are that it provides intensity of experience during the unit of work and capitalises on teacher expertise. If the two double periods can be timetabled back to back, then especially good use can be made of the time. It lends itself to three units of work per year, which across the Key Stage provides for breadth, balance and appropriate depth.

The drawbacks of this approach are that three teachers teach students during the year so continuity may be poor, and unless very good records are kept, end-of-year reporting to parents can be difficult.

Note that neither approach will be successful unless a common philosophy and agreement on the broad aims and methods for teaching design and technology underpin the teaching. Neither approach will be successful without on-going communication between the staff about the progress made by students as they move throughout the school year and across the Key Stage.

7.2 Using club time

This can take place during lunch breaks or after school. Some faculties encourage students to come to the design and technology area to work on the Capability Task they are currently tackling in school or on a personal project. It is sometimes useful to restrict certain times to certain year groups, as a completely open house policy can lead to very high demands being put on staff and facilities.

It is possible to combine this broad approach with a more focused one of specific clubs. The nature of the clubs will depend on the interests and expertise of members of staff but even in a small faculty it is possible to run a range of clubs: for example, an electronics club and a fashion club.

You can also run a Young Engineers Club. There are over 1400 Young Engineers science and technology clubs in the UK network and club activities mainly revolve around specific “live” projects which reflect the breadth of engineering – from medical and safety equipment through to electronic, mechanical, ICT, built-environment and other systems, chemical processes, and audio and textile technologies! Clubs sometimes take part in challenges initiated by major and local companies, and active links with local companies are an important feature of most clubs. Engineering professionals, including the eight-thousand-plus strong network of Neighbourhood Engineers (NEP), work with the students on their projects and clubs often enter regional or national competitions, including the annual Young Engineers for Britain (YEB) competition.

Contacts

Young Engineers Club website: <http://www.youngeng.org/>

Science and Engineering Ambassadors through your local SETPOINT; and the SETNET website : <http://www.setnet.org.uk>

General enquiries e-mail: seas@setnet.org.uk tel: 020 7557 6422

7.3 Providing continuous time

Students who tackle a Capability Task as an immersive experience over a continuous period of time (say two or three days) learn a great deal about how to do design and technology. Whilst it is difficult, if not impossible, to use this approach to teach design and technology across an entire year, it is important to provide the opportunity once or twice during a Key Stage. Many schools have end-of- year activity weeks and it is often possible to use some of this time. It is important to prepare the students for the task well before the event and to design the task so that they are able to make best use of what they have already been taught in design and technology and perhaps other subjects. The aim is to ‘hit the ground running’ on the first day. Two features are important in making this activity a success. Students should be organised to work in teams so that the task can be more ambitious than usual because of the division of labour. Use clients who can visit the school and give feedback to the students as they tackle the task to make the experience real. This also enables the teacher to concentrate on helping students to manage themselves as a team and to meet the deadlines. You can select any one of the Capability Tasks from the Teacher’s File and adapt it to meet the needs of an immersive experience over a continuous period of time.