

A Glossary

of timetabling terms

Note : there is a fuller version in 'The Timetabler's CookBook', details at : <http://www.timetabler.com/book.html>

Activity	A set of timetabling resources. eg. 7A for 3 periods of Science with Mr Johnson. eg. All Year 11 with 14 teachers for 2 Double periods of Option Block B.
Band	A sub-division of a year-group (ie. a Year or a Grade), representing a population of students with a common curriculum. eg. in Year 9 there are 6 classes 9A, 9B, 9C, 9D, 9E, 9F, and 9AB form a band. A band may be a 'half-year-group' (eg. 9DEF in this example).
Basic Data	The basic resources used in timetabling, including: Classes (of students), Teachers, Rooms, Subjects. See also Resource.
Block	A group of activities timetabled at the same time ('in parallel'). The activities may be 'setted', or may be 'option choices' ('electives'), or may be part of a 'circus' or 'rota', or may be parallel groups divided on the basis of sex (eg. for PE.) The diagrams in sections H and I of the <i>TimeTabler</i> Manual show a variety of curricular models with different blocking arrangements.
Block timetabling	Sometimes called 'Faculty timetabling' because it is generally only feasible if the school is clearly organised into faculties. An overall Block Timetable is sketched out by a senior member of staff, and then the responsibility for staffing the activities is devolved to each faculty.
Circus, or rota, or carousel	A blocking arrangement on the timetable which allows students to rotate to different groups during the course of the year. For example, suppose 7AB is timetabled with 3 Technology teachers in parallel, so the students in 7AB are divided into 3 thirds. After a term (semester) the students rotate so that students who were doing Food Technology change to the Textiles teacher, while the group which was doing Textiles moves to the Design Technology teacher, etc.
Clash Table	A clash table of Subjects chosen by students for their Options (Electives). For more details see the free Tutorial Booklet for the <i>Options</i> program, available from http://www.timetabler.com Note: this is different from another clash table called a 'Conflict Matrix' (below).
Class	This can be an ambiguous word for a population of students. 'Class' can mean: i) A Registration Group (or Tutor Group, Form Group). eg. class 7A This is the meaning used in <i>TimeTabler</i> . ii) A group of students brought together for the teaching of a particular subject. eg. 7A-French The more correct name for this is 'Teaching Group'.
Columns	See Option Blocks.

Combing Chart	A useful graphical method for checking whether a set of teachers (eg. a department) will fit into the timetable cycle. See the free INSET download at http://www.timetabler.com/inset.html TimeTabler will draw a Combing Chart for you automatically.
Common Core	The part of the curriculum (usually in Upper School) which is compulsory for all students (as distinct from the optional or elective part).
Composite class	When 2 or more classes (forms, registration groups, tutor groups) combine to form a band. For example, 7ABC is a composite class (of 7A, 7B, 7C). Compare with 'pure class'.
Compromise	A change (a relaxation) in the original data in order to make progress with the timetable. Timetabling has been described as the art of (acceptable) compromise.
Conflict	Activities with common resources are in conflict. The conflicting requirements mean that they cannot be timetabled simultaneously.
Conflict Matrix	A clash table for analysing the conflicts between 2 sets of teacher-teams. Not to be confused with a Clash Table. See the free INSET download at http://www.timetabler.com TimeTabler will draw a Conflict Matrix for you automatically.
Consistent setting	When a number of subject departments agree to group the students consistently, to facilitate scheduling the subjects in a block. See the detailed diagrams in sections H and I of the TimeTabler Manual.
Contact Ratio	This is equal to the average teaching load of the staff (in periods) divided by the number of periods in a full timetabling cycle. A typical value in the UK is in the range 0.76 - 0.84 See the free INSET download at http://www.timetabler.com
Container Blocks	A block of curriculum time into which a number of activities (with classes, teachers, rooms, subjects) must fit, without breaking out of the block of time. In the UK this can include blocks involving: <ul style="list-style-type: none"> ● Coordinated Science sets (with Physics, Chemistry, Biology taught by 3 teachers in consistent groups), or ● 'Consistent setting' blocks (eg. with History and Geography to be taught in the same setted groups as English), or ● Option Blocks, particularly in Years 12/13, with split-teaching (eg. the History group is taught by 2 teachers at different times, while the Physics group is taught by 2 teachers at different times, with any permutation of a History teacher plus a Physics teacher to be allowed), etc. TimeTabler allows you to specify Container Blocks while retaining the flexibility of movement (using 'musical chairs' moves) within the block.
Curriculum	The courses of study arranged by the school, to be staffed and timetabled.
Curriculum Analysis	See Staff Deployment Analysis.
Curriculum bonus	A theoretical measure of the amount of curriculum time allocated to a class (or student population) in excess of a notional basic provision.

Curriculum Diagram	A concise and accepted method of showing the structure of a curriculum. Also called a Curriculum Plan or Curriculum Notation. An essential tool and the starting point of the timetabling process. For examples see http://www.timetabler.com/SupportCentre/CurriculumDiagram.xls
Cycle	The Curriculum Cycle, or Timetable Cycle, is the period of time after which the timetable repeats itself. The most common types currently are : 25-period 5-day week, 50-period 10-day fortnight, 30-period 5-day week, or 60-period 10-day fortnight. Sometimes 6-day cycles are used, both the fixed type (eg. Mon-Sat) and the 'rolling 6-day' type (eg. Day1 is on Monday the first week, on Tuesday the second week, etc.)
Day-Blocking	The intention that similar activities should not be repeated on the same day. For example, TimeTabler will automatically ensure that 5 single periods of French are placed on 5 different days. P.E. and Games will often be DayBlocked.
Degrees of Freedom	A measure of how much flexibility exists for the placing of an activity. This in turn has implications for the best sequence of scheduling the activities. TimeTabler automatically displays a Priority List for you, based on the number of degrees of freedom and many other criteria.
Disjoint teams	Non-over-lapping teams. ie. with no teachers in common. The idea also applies to class-combinations and room-combinations. See also the Principle of Compatibility and the Combing Chart. More details in ' <i>The Timetabler's CookBook</i> ' and in the free download on the Combing Chart from http://www.timetabler.com/inset.html
Electives	See Option Blocks.
f.t.e.	Stands for Full-Time-Equivalent when talking about the number of teachers. eg. a school might have a f.t.e of 61.5 staff. A part-time teacher who is paid for 2 full days (only) in a 5-day week would have a f.t.e. of 0.4
FIT	A very powerful feature in TimeTabler , which finds 'musical-chairs' moves of up to 16 steps.
Fixed points	The parts of the timetable which are at pre-determined times and locked in place. eg. "Year 11 always have Games on Wednesday afternoon." eg. "All classes have PSE on Thursday period 1."
Free choice	A system of Option Blocks (or Pools, or Electives or Columns) where the students can choose a specified number of subjects from a list, without any restriction on their choice. The Blocks are then constructed so as to maximise the student satisfaction, while minimising the staffing cost, using a program like Options .
Form-entry (f.e.)	A unit used for indicating the size of a school's intake of students, based on the number 30. For example, 4 f.e. = 120 students in the year-group.

Grid timetable	A timetable cycle based on a small unit of time, with lessons taking multiple units. For example, a 20-minute grid, with lessons taking 2 units (40-minutes), 3 units (60-minutes), etc. Also called a granular timetable. More common in colleges than schools.
Guided choice	A system of Options where 'choice' subjects are arranged in Blocks (or Pools, or Electives or Columns) and students choose one subject from each Block. A program like Options will then check group-sizes and look for swaps to balance the groups.
Heterogeneous option	Where the subjects in an Option Block are from different areas of the curriculum.
Homogeneous option	Where the subjects in an Option Block are basically from one curriculum area. eg. a Science Block.
MIS	Management Information System. An administration system for the school or college. Examples include Capita SIMS.net, Serco Facility, Phoenix e1, RM Integris, WCBS/PASS, iSAMS, SchoolBase, etc. (TimeTabler can export the completed timetable to each one.)
Multiple periods	Consecutive periods of the same activity. eg. doubles (D), triples (T), quadruples (Q), etc.
Musical chairs	An essential scheduling tactic. An interchange of activities on the timetable in order to allow another activity to be scheduled. Moves can be 2-step, 3-step, 4-step, etc., as illustrated in chapter 11 of ' <i>The Timetabler's Cookbook</i> '. TimeTabler will easily find and use moves of up to 16-steps for you.
Non-class activity	A scheduled activity involving staff but not students. eg. a timetabled departmental meeting.
Non-rectangular week	When the days are of different length. eg. 6 periods on each day except Friday which has only 5 periods.
Option Blocks	Also called Option 'Pools', or 'Electives' or 'Columns'. Areas of the (Upper School) curriculum where 'choice' subjects are grouped into Blocks for simultaneous teaching, and allowing students a choice of curriculum. For more details of how to organise efficient Option Blocks, see the free download of the Options Tutorial Booklet, and the free TimeTabler Tutorial Booklet, at http://www.timetabler.com
Parallel activity	Linking of two or more classes for an activity. eg. if you want class 7A and 7B to be together for a Double and then a Single period with both teachers AB and CD, then in TimeTabler you would enter : 7AB DS AB CD
Period spread or breakdown	The way in which all the periods of an activity are to be placed across the school week (timetable cycle). eg. 2 Doubles (DD), or 5 Singles (SSSSS) on 5 different days.
Pre-assignments	See Fixed Points.

Principle of Compatibility	An important timetabling rule. When dividing a larger set of resources into smaller sets, the sub-sets should ideally be disjoint. It applies mainly to teachers and to classes. See also the free Combing Chart training materials at http://www.timetabler.com/inset.html
Pure class	A single class with one teacher. eg. 7A-History with teacher KJo. Most common for lower-school activities. Sometimes (in SIMS only) called a 'linear group'. Compare this with the entry for 'composite class'.
Resource	The fundamental data: Classes, Teachers, Rooms, Subjects and Time. See also Basic Data.
Rooming fraction	The ratio of the average usage of rooms (in periods) divided by the number of periods in the timetable cycle. A value of more than 0.85 (85%) will cause increasing difficulties. More details in chapter 9 of <i>'The Timetabler's CookBook'</i> .
Scheduling	The actual constructing of the timetable, assigning the activities to specific time-slots. By contrast the word 'timetabling' is sometimes used for the entire process, from curriculum planning to final publication of the printouts.
Schematic diagram	A diagram (of classes v. time) for checking the theoretical fit into the timetable cycle of one (or more) year-groups, without taking account of period-breakdown.
Set or setted activity or ability set	Where teaching groups for the same subject are taught in parallel, with students allocated to groups according to their ability in that subject. This allows a student to be taught in the top set for Maths and in the bottom set for English if this is appropriate to his/her abilities. In some countries (eg. France) this method is never used. A more modern terminology is 'grouping according to prior attainment'. In some MIS, 'Set' is sometimes wrongly used to mean any Teaching Group. In <i>TimeTabler</i> , 4 Maths sets (with teachers Ma1, Ma2, Ma3, Ma4) across classes 7A, 7B, 7C, for 3 single periods, would be entered as: 7ABC SSS Ma1 Ma2 Ma3 Ma4
SIFA	Schools Interoperability Framework Association. An organisation originating in the USA (but now developing in the UK and Australia) for developing software that allows the transfer of data between different MIS and other programs such as <i>TimeTabler</i> .
Split-site	Where a school is organised on two (or more) sites, usually with the older students on one site and the younger students on another. The timetabler has to allow time for staff to commute between the sites.
Staggered lunch	When different year-groups have a lunch-break scheduled at different times (to facilitate better use of resources). See also Section H in the <i>TimeTabler</i> Manual.

Staff Deployment Analysis	A method of analysing the usage of staffing resources, so as to compare schools or to compare year-groups (grades) within a school. (It is sometimes, wrongly called Curriculum Analysis.) It analyses the distribution of teaching time to different parts of the school, by calculating curriculum bonuses or bonus periods for year-groups (or bands, or classes). This is done for you in TimeTabler . See the inset materials at http://www.timetabler.com
Staffing ratio	The ratio of the total number of (full-time-equivalent) teachers to the total number of students. eg. 1 : 18
Staff Loading Chart	A table used to check: i) that each teacher will have a suitable teaching load (contact time), and ii) that the entire curriculum is covered by teaching staff.
Teaching Group	A group of students brought together for the teaching of a particular subject. eg. 7A-French In some admin systems (MIS) a Teaching Group is sometimes wrongly called a 'Set' or a 'Set Group'. See 'Set'. Teaching Group information can be transferred from TimeTabler to an MIS, usually in a format like: 7A/Fr2B (class 7A, French, Set 2 in Block B) with the associated time-slots showing when it is taught.
Time-slot	A time (period) during the timetable cycle, to which a lesson can be assigned (scheduled).
Time-frame	The timetable cycle (school week), divided by periods, breaks, days, etc.
Zarraga's Rule	This states that: "as far as possible, teachers who are members of the <i>same</i> teacher team in one part of the school should be allocated to <i>different</i> classes for pure-class activities in another part of the school". The reasons for this are explained in chapter 10 of ' <i>The Timetabler's Cookbook</i> '. TimeTabler will automatically do this analysis for you.

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