TimeTabler

Timetabling software for Schools

Uh-oh? What do you mean 'uh-oh'?

Will your next timetable be more difficult?

Dear Timetabler,

Timetabling is probably the most important single event in the school year. It has a powerful effect on the life of a school or college, and as the Timetabler you carry a heavy responsibility.

This Booklet, like the others in the series, is designed to help you with specific aspects of timetabling.

An effective timetable is essential for a good school. A school which does not invest in creating a quality timetable will be forever struggling uphill.
These Booklets give you help on specific topics, so you can achieve the best results using our intuitive and smart software.
You have problems？ We have solutions！ Based on long timetabling expertise.

We are expert in all aspects of timetabling in schools and colleges, and we have been using our expertise to help and support schools for over 40 years in over 80 countries.

Whether you are new to timetabling, or an experienced timetabler; no matter how complicated your school or how complex your timetabling problems, we have **solutions** for you.

What we offer you：

TimeTabler
Easy-to-use and intuitive smart software, used by schools world-wide to schedule their timetables.
TimeTabler can deal with any curricular structure, of any complexity.
It is supported in 12 ways by a friendly and experienced team ...see page 9 for details.
TimeTabler exports your completed timetable to over 40 MIS Admin systems.

Options
An easy-to-use program for analysing and organising your students' Subject Choices (Electives).
It is important to get the highest satisfaction rate for the students, to let them study the subject Choices they have chosen. This improves students' motivation, and Exam results, and it improves relations with parents. And it keeps the cost of staffing the curriculum as low as possible.

StaffCover
This well-known program is designed to help you to streamline the daily business of arranging and publishing Cover for absent staff or special events, as quickly and fairly as possible.
StaffCover links directly into *TimeTabler*, so you do not have to type in your timetable again.

The Timetabler's CookBook
This book is the definitive 'bible' on timetabling, for both new and experienced timetablers.

Help & Support
We provide a wide range of **free** Help & Support. See page 9 for more details.

Happy timetabling！

Chris and Keith Johnson
and the rest of the Team

October ReSolutions Ltd

www.timetabler.com
ask@timetabler.com

Will your next timetable be more difficult?

There are a number of things that are presenting schools and timetablers with challenges.
Some are listed here for you to consider, and perhaps discuss within the Senior Leadership Group.
What can be done in your school to mitigate their effect?

This PDF shows you some of the problems and how to tackle them.
It's another in our series of white papers from www.timetabler.com to help timetablers get the best out of their timetabling experience.

Contents: page

---

1. The Budget

One of the factors affecting timetabling is the school budget. Budget cuts with the same number of students in your school, or increased student numbers with the same budget? Either will mean that your school will have tighter staffing, with less flexibility for the timetabler.

Do you have the potential to find some extra periods of teaching? The key to this is to calculate your school's Contact Ratio, and see how it compares with others nationally.
The definition is:

$$\text{Contact Ratio } (c) = \frac{\text{Total No. of teacher-periods taught}}{\text{Total No. of teacher-periods possible}}$$

See also page 66 in 'The Timetabler's CookBook'.

You can calculate **c** from that formula, or if you have **TimeTabler** software it will calculate it (and more) for you.

ıllı Staff Deployment

What is an acceptable contact ratio for your school?
Only you can decide that, depending on whether it is a split-site school (with commuting) and other factors, but the Association of School & College Leaders (ASCL) suggest a figure of **0.78** (78%).

[Should the HeadTeacher be included in this calculation? ASCL suggests 'yes', but it's quite common in practice to omit the HeadTeacher but include all Deputy/Assistant Heads.]

How does your value compare? What is the rationale for any divergence from the suggested value?

Curriculum Bonuses
You can also calculate the Curriculum Bonus for each YearGroup, as explained in 'The Timetabler's CookBook', chapter 5, see www.timetabler.com/book

With **TimeTabler** it's easy : just enter the number of students in each Year and it shows you the Bonuses and draws a Bar-Chart of the distribution of the Bonuses.

ıllı Draw a bar-chart

For example:

B
O
N
U
S

   7   8   9   10   11
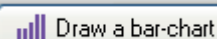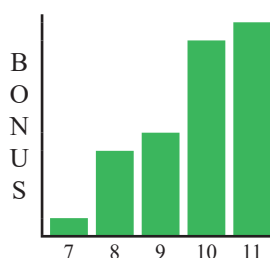
This is the bar-chart for an 11-16 school with 162 bonuses.
It shows how the 162 bonus periods were distributed.
You could decide to distribute the 162 periods differently.

B
O
N
U
S

   7   8   9   10   11
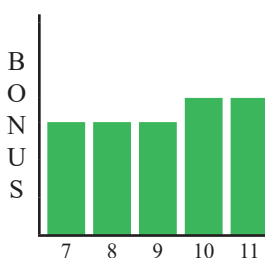
Is this pattern more, or less, fair to the students?
It distributes the same 162 bonuses in a different way.
It's your judgement.

B
O
N
U
S

   7   8   9   10   11

A potentially bad scenario, because the bonuses for Year 10 will normally have to continue into Year 11 as well, either by stealing from lower years or by raising the contact ratio.

There is more on the topic of Saving Money at: www.timetabler.com/SavingMoney.html

Do the results for your school require changes to your curricular structure for next year?
If so, how can you test the possibilities?
The only sure way is to schedule a (dummy) timetable with the proposed new structure.
With modern timetabling software you can do **'What if...?'** investigations quickly. See **Appendix 1**.

Summary:

Contact Ratio for this school = _____

Number of periods extra, or fewer, if we moved to a contact ratio of 0.78 = _____

Year Groups with a high level of Curriculum Bonuses:
Year Groups with a low level of Curriculum Bonuses:

2. Part-time staff

In recent years schools have found greater difficulty in recruiting staff, and there has been a general increase in the percentage of Part-time staff. This may make it more difficult to get a quality timetable.

Do you have a school policy regarding the recruitment/appointment/contracts of part-time staff?

Split / shared teaching
How much split/shared teaching of groups is there in your school?
If the amount of split/shared teaching is high, is it due to your contact ratio? Or due to the number of part-timers? Or decisions by Heads of Subjects? Or poor scheduling? Can it be reduced?

For each group, is the split/shared teaching damaging or enhancing the students' learning?

In **Lower School**, the effect of part-timers on the learning depends on the subjects they teach : a part-timer for Art is often acceptable (because a lower-school class usually has only one Art lesson per week). But a part-timer for a 'serial' subject like Maths or a Language can have serious effects, on both discipline and exam results. *For example,* a part-time teacher of French who is available for only two afternoons will not allow the 5-single-periods-on-5-days that support good French teaching.

On the other hand, split teaching between a good teacher and a poor teacher may benefit the pupils.

In **Upper School**, the effect of part-timers can be more serious. If a part-timer is allowed to become a member of a team then his or her 'part-time-ness' is transferred to the other members of that team.

For example, if a part-timer is available only on Monday and Tuesday and is a member of the teams for some Upper School Options, then these teams must teach on Monday and Tuesday and so all the other classes taken by all the members of the teams will tend to be squeezed into Wednesday, Thursday, Friday. This effect tends to 'ricochet' round the timetable and can produce a serious skew to the timetables of some departments and some classes seemingly unconnected to the part-timer. This is especially serious if it clashes with fixed 'consortium days' when students are moving to other schools in the consortium.

Obviously, if *two* part-timers are in the same teacher-team then the team can teach only at times that are common to both part-timers! This, by itself, may make your timetable impossible!

As a general rule, the more part-timers you have, the more difficult it is to timetable the same amount of setting in your school. How will you test any proposed changes? See **Appendix 1**.

If you have *TimeTabler* software, you can find a PDF in the Support Centre: detailing all the features to help you to timetable Part-timers efficiently.

Part timers Search

'Trapped' time
With any part-timer it can be important to reduce or eliminate any 'trapped time'.
For example, part-timer Mr Brown will not be pleased if he is scheduled to teach (and be paid for) only periods 1 and 5 and is left free (but unpaid) for periods 2, 3, 4! And if Mr Brown is paid for periods 2, 3, 4, then your budget will suffer.
Reducing trapped time is a challenge for the timetabler; our smart software can help you with this.

Two-week timetable cycle
Some kinds make it difficult to timetable Part-timers. Is yours the best type of 2-week timetable?

There is much more about this, and about employing Part-timers, and about Timetabling them, at:
https://www.timetabler.com/improvingPart-timers.html

Summary :

Subjects affected by part-timers :

Number of periods affected in 'serial' subjects (Maths, Languages) = _____
Number of periods affected in other subjects = _____

Number of periods of 'trapped time' for which we pay part-time staff = _____

3. Optional Subjects

Option Blocks are being squeezed in some schools and this can make it even more difficult to get a meld between blocks in Upper School. This is especially the case if:
- you also have a Sixth Form, with its own Options structure, often incompatible,
- you have a significant number of single-subject teachers (eg. Mrs Jones teaches only History),
- you have a large number of part-timers, see page 3.

It is also affected by the extent to which your Option Blocks are 'homogeneous' or 'heterogeneous', see Chapter 3 in 'The Timetabler's CookBook', www.timetabler.com/book

Is the present options Structure the best for your school?
A recent survey of secondary schools showed 3 main structures in use, with 7 variations on them. You can see details of these 10 options structures by downloading the PDF from:
www.timetabler.com/improvingOptionsStructures.html

How does your existing structure compare to those?
Is there a better structure, that would suit you and your students better?

Is the Timetabler fully involved in the design of the option blocks?

Collecting students' Choices
The same PDF shows you alternative ways of collecting the Choices from pupils/parents.
Could it be improved in your school? Might it allow you to get a better start to the timetabling stage?

Finding the best arrangement of Subjects,
- to satisfy the pupils' choices, but
- with the least staffing cost,
is easy & quick with dedicated software:
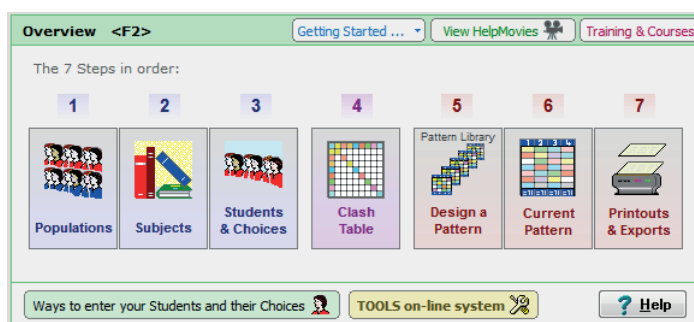
See more at: www.timetabler.com/images/Video-OptionsOverview/

Testing the effect on the timetable
You can do a *'What if...?'* investigation to see the timetable consequences of your Options structure. See Appendix 1 for more details about how to do that.
You'll only need to do a quick schedule (on fully-automatic) of just Years 10 & 11 against each other (and against the 6th Form if you have one).

Scotland
If you are working in Scotland then please see the list of PDFs at: www.timetabler.com/scotland

---

Summary:

Are there any disadvantages with your present Options Structure? Is there a better structure?

Is there a more efficient way to collect students' Choices, with less work by you and the Office Staff?

Is there a more efficient way to organise the Subjects within the Options Blocks?
If so, might it save some money by reducing the staffing cost of the options?

4. Timetable Cycle

When there are new senior staff in a school it's quite common for it to be suggested that the timetable cycle should change. ie. that the number of periods per week or fortnight should change.

However, changing the timetable cycle is not something to be undertaken lightly or in a hurry!
It is always best to plan for the September after next! Everyone needs to be consulted.
Parents in particular may react angrily to your plans if the start/end times of schooling are affected.

This whole topic is discussed in more detail in sections 2.21 – 2.22 in 'The Timetabler's CookBook'.

Number of lessons in a day

When considering the length of lessons, there is a tension between:

- longer lessons (fewer periods per day) perhaps giving less noise on the corridors but requiring more skill from staff to provide a variety of learning experiences, especially in Languages, *and*
- shorter lessons (more periods per day) giving more variety of learning and more reinforcement to the pupils.

Of course the actual learning sessions for the students depend on the use of Single and Double (and even Triple) periods on the timetable.

These and other considerations about the school day are discussed at:
www.timetabler.com/ResearchOnEffectsOfTimetabling

Different types of 2-week cycles

There is more than one kind of 2-week cycle, and the type that you use can have a big effect on your Part-time staff.
To help you to decide the best type for your school, see page 5 in the free PDF at:
https://www.timetabler.com/improvingPart-timers.html

Summary:

Is our current timetable cycle right for our situation?
What are the pros and cons of changing the timetable cycle?
What do we need to do before we can make an informed decision?

5. Sixth Form or a joint S4/5/6

If you have a Sixth Form, are you scheduling the best number of blocks, with the right number of periods, in such a way that the 'tail' of the Sixth Form is not 'wagging the dog' of the main school?

Do you suspect that the main school is subsidising the staffing of the Sixth Form? You can find out as described in section 5.13 of 'The Timetabler's CookBook', www.timetabler.com/book

When the timetabling is started, is the Sixth Form scheduled first? Is this correct?
There is a logical argument that the biggest fixed blocks should be scheduled first (ie. Years 11 & 10).
The way to test this is to do a dummy timetable as described in Appendix 1.

International Baccalaureate

If you are scheduling IB groups, and using *TimeTabler*, see the PDF
in the KnowledgeBase by typing in the Search Box:

It gives full details of 7 curricular arrangements for IB.
If you use the *Options* software, see Appendix 2 of the same document for a quick way to check that each of your diploma students have chosen HL/SL subjects correctly.

In Scotland

If you have a joint S4/5/6, is it causing difficulties for scheduling S1/2/3?
Is the structure working well at present, or do you need to do some *'What if...?'* dummy runs to test different models?
See the PDF of different models for S1/2, listed at: www.timetabler.com/scotland

---

Summary:

Sixth Form:
Is the Sixth Form being subsidised at present? Should that change? How can we decide the best way forward?

IB:
Have we got the best arrangement for HL/SL groups and for ToK, etc.

Joint S4/5/6:
Might a different structure for S1/2/3 help? How can we find out?

Appendix 1

One of the great advantages of modern 'smart' technology is that you can now do more than one timetable per year.

In particular it is now feasible to do *'What if...?'* investigations to judge the effect of curricular changes, before you commit yourself to 'doing the timetable'.
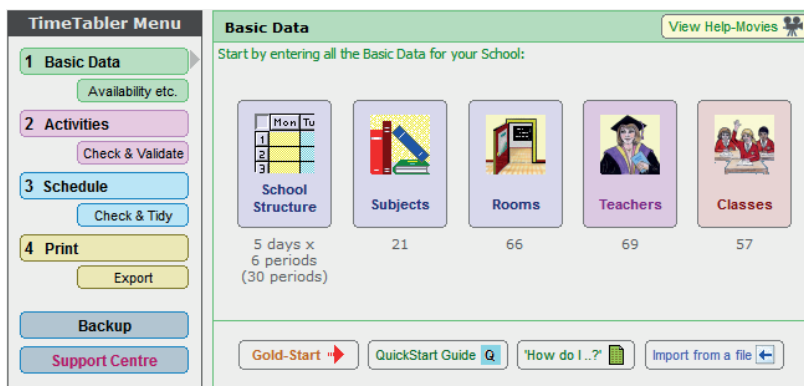
TimeTabler uses the valuable concept of 'Batches'. This feature allows you to:

- Test a schedule for just part of the school. *For example,* if you want to test a proposed Year 10 options system against your existing Year 11 options system (and Sixth Form if you have one).

- Test timetabling your school by scheduling in different sequences.
  For example, is it better to schedule the Sixth Form before or after Year 11?
  For example, after scheduling the Upper School is it better to do all of Year 9 before Year 8, or is it better to do all the big blocks in both years before scheduling the smaller items?

  Experimenting with alternatives can have a big impact on the number of classes that have split/ shared teaching, and on the rhythm of the lessons. This is because there is never a unique solution to a school timetable, but many viable alternatives, each with its own flavour.

In outline:

If you are new to *TimeTabler*, use the steps shown in the QuickStart Guide and in the booklet that accompanies the **free** Tutorial version of *TimeTabler*.

If you used *TimeTabler* last year then you just re-use the data. Make a Clone of your data (as explained in HelpMovie 8) and tweak the clone to the new/proposed structure, and then use Automatic Scheduling to see the result.

For full precise details, click on the [Support Centre] button, and then in the *TimeTabler* KnowledgeBase use the Search Box to go to the article: There are over 300 articles on timetabling in the KnowledgeBase.

More information at: www.timetabler.com
You can sign up there for the monthly eNewsLetter on timetabling.

Summary:

Is our present timetabling method the best for us, and for our students?

Which *'What if...?'* investigations should we do before the next timetabling season?


Other titles in the series:

TimeTabler:

- *TimeTabler* Tutorial (+ free Tutorial software).

- Timetabling for Social Distancing during a pandemic.

- White Paper on Improving your school's Timetable.

- Saving Money for your school via the timetable.

- A Guide for Headteachers

- Doing 'What if...?' investigations.

Options:

- White Paper about different Options Structures.

- What is the most efficient way of collecting your pupils' optional Subject Choices?

- Improving your school's Options.

- Exporting from *Options* to SIMS, iSAMS, Bromcom, etc.
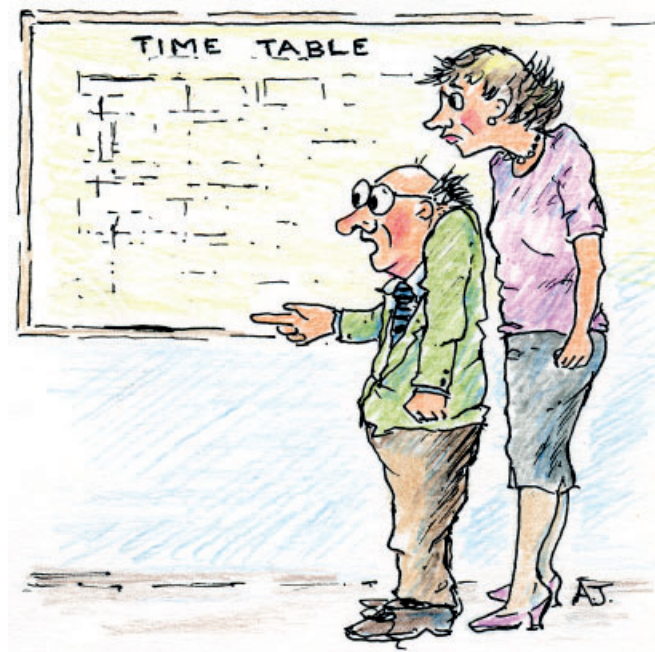
You're right — it **is** last year's, turned upside-down !

Help & Support for your timetabling

With *TimeTabler* we provide the most comprehensive and expert timetabling support in the world.

We support you in **12** ways :

TimeTabler
Timetabling software for Schools

Free Downloads

TimeTabler Tutorial

Options Tutorial

StaffCover Tutorial

Principles & materials

1 There is a free **Tutorial**, with a step-by-step Tutorial Booklet, to give you a quick introduction to the general style of the program.
Visit **www.timetabler.com** and use the Menu shown to get your free copy :

2 In *TimeTabler* every screen has its own interactive **HelpScreen** (as you can see in the free Tutorial versions).
Just click on the part of the screen you want Help on. **? Help**

3 We provide a range of animated **HelpMovies** (video tutorials), to explain each main screen with a guided tour.
This is good at the start, to learn it quickly, and also at the start of each new timetabling season for quick revision.

4 *TimeTabler* comes with a fully-illustrated 250-page **printed Manual**. This contains a large number of **Worked Examples**, from simple 'setting' to the most complicated 'Sixth Form'.
It includes lots of timetabling Tactics, Tricks and Tips, spelt out step by step.

5 We provide a **QuickStart Guide**, with a checklist of steps that you need to take.

6 The book by Keith Johnson, Mervyn Wakefield and Chris Johnson on *"Timetabling – A Timetabler's CookBook"* is the standard 'bible' on timetabling **principles**.
It covers every aspect from A to Z.
The web-site also has some free **INSET/CPD materials** on timetabling principles.
And if you are **new** to timetabling, there is more information for you.

TIMETABLING
A Timetabler's CookBook
Keith Johnson

7 We send you a **monthly NewsLetter** to remind you of the essential tasks at each stage of the timetabling year. To receive your free copy, go to:
www.timetabler.com/signupfornewsletter/

8 You will have free access to our 24/7 **SupportCentre**. **Support Centre** This includes a large fully-searchable '**Knowledge Base**', where you can find answers to common timetabling problems, and you can download over 300 articles on timetabling.

9 We provide detailed documentation on how to **Export** your completed timetable to SIMS .net, Arbor, iSAMS, and the other Admin Systems.

10 Before you start timetabling, our *Options* software helps you to find the most efficient arrangement of 'elective' choice subjects.   Simply and quickly.

11 Above all there is the free expert **HelpLine Support**, from our team of experienced timetablers. For New Users we provide free **Gold-Start** **Enhanced** Support & Guidance.
More details at: www.timetabler.com/gold-start

12 And if you need a training course, or if you want some on-site in-school Help, then our *TimeTabler* Associates can provide it.

So we provide a complete service for Timetablers. For you.
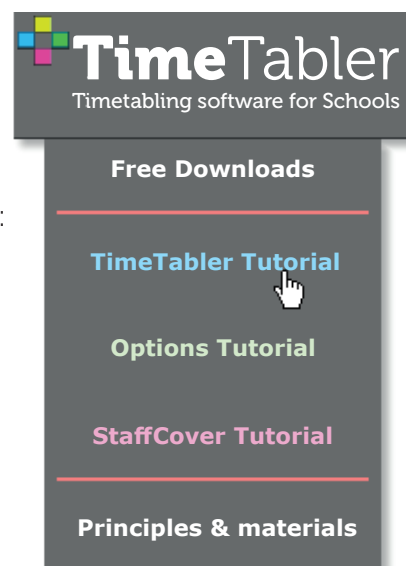
Scan me :
QR code for your
tablet or phone

For more information and free downloads, visit   www.timetabler.com

Other booklets in the series include:

- Help & Support we provide for you

- Timetabling Primary and Prep schools

- Timetabling a Special School or PRU

- Timetabling : A Guide for Headteachers

- Improving your school's Option Choices

- Dealing with Part-timers

- Doing 'What if...?' investigations

Download these Booklets and others, free of charge,
from: https://www.timetabler.com/timetabling-ebooks/

"Everything should be made as simple as possible, but not simpler"

– Albert Einstein

October Resolutions Limited
Lymm,
Cheshire, UK
www.timetabler.com

Time Tabler

Providing timetabling solutions for 40 years