## Using TimeTabler to timetable consistently-setted structures


#### Abstract

Timetables that contain 'consistently-setted' blocks can be among the most difficult to schedule, yet at the same time they can give a timetabling flexibility to your curricular structure. In the first year of using TimeTabler it may take a while to get the best arrangement. But remember that once you have set up the batches for the right method, you will not have to re-enter them next year. You can just tweak them as explained in HelpMovie 8.


This document discusses the best way to solve each kind of problem.
9 different structures are shown, so that you can choose which is closest to what you need.
A recommended solution is given for each one.
See also the video, HelpMovie 24A, which illustrates some aspects.

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## Keeping groups/sets of students consistent

One of the biggest problems facing timetablers is when the curricular structure requires you to keep groups of students consistent. ie. the same students being taught in the same group at different times of the week in such a way as to ensure that they don't get mixed up with other groups in the wrong way.

The 9 examples on the next few pages illustrate more clearly what we mean.
To tackle this problem there are 2 main methods, explained in more detail on the following pages.
The 2 main methods are: - Consistent Grouping ID (for straightforward structures)

- Container Blocks (for the most complex cases)
[A third method, for very simple cases, uses Global DayBlocking, see the next page.]


## Pros \& Cons of the 2 methods:

## Consistent Grouping ID:

Pros: - Simpler to use than Container Blocks.

- No need to R-Reserve periods.
- FIT may move a lesson to any time of the week.

Cons : - Less powerful, so it can't deal with the most complex structures, see below.

- It may use a lot of Class Scheduling Names, so if you already need a lot elsewhere (eg. for the Sixth Form, Years 12-13) then you may hit the limit of 150 Classes.
- You cannot add additional 'Spread' for Sixth Form blocks (as you can with Container Blocks).


## Container Blocks:

Pros: - Can deal with the most complex cases, for ANY curricular structure.
Cons: - More difficult to set up, and more difficult to use.

- You must R-Reserve specific periods for the Block, in advance.
- FIT will not move lessons out of the R-Reserved periods.


## Important note 1:

If you are in any doubt about which is the better method for Years in your particular school, then send in a Ticket to the free Support Centre (as in HelpMovie 4), remembering to attach a Curriculum Diagram so that we can see what your situation is.

## Important note 2:

In all the following structures, they can only work in practice IF the period-breakdown of each row is compatible with the other rows above/below.
Taking the simplest possible case, of a simple block with just 2 rows:

Art DD
French SSSS

If the Art teacher wants 2 double-periods while the French teacher wants 4 Singles

This is easy to see here, but in more complex cases (shown later) it will need more careful consideration. If you find that TimeTabler gets stuck during scheduling, this is very often the reason why. It's because you have specified incompatible period-breakdowns!

On the following pages we show 9 curricular structures, with a commentary on the best way to schedule each of them. Look at them to decide which is the nearest to the structure that you want in your school.

## Example A

This is a very simple example of consistent grouping. It's a simple Block with 4 subjects to be scheduled in parallel (taught at the same time), but the History group has splitteaching, with 2 different History Teachers, shown here as 2 activities, His-1 and His-2. Clearly the 2 History activities have the same students, and in scheduling them you have to ensure that both these 2 activities remain inside the Block with these subjects and do not get mixed up with different subjects.
In this case it is very easy to do, and you do not need either of the 2 main methods. You just need to split it into 2 Blocks and use a Global DayBlocking Code as follows.

- Use the Simple Block Wizard to enter the 4 subjects in a simple block, with the staffing.
- Repeat this [or use right-click Clone] to get a duplicate block.
- Edit the second block to give the correct staffing for the second History.
- Add the same Global DayBlock Code to each (to tell TimeTabler that you want the 2 blocks on different days.
Then on the Curriculum Diagram Screen it looks like this:
The two History teachers here are RR and JC. The Global DayBlock Code is 1.

| 9A | Art ATa | Art ATa |
| :---: | :---: | :---: |
|  | His RR | His JC |
| 98 | Geo DKe | Geo DKe |
|  | Spa EBr 2 | Spa EBr 2 |
| 9 C | SS | SS |
|  | 1 | 1 |

Or if you prefer the List-View Screen then it looks like this:

| Class | Lessons | Teacher Team | DayB |
| :--- | :--- | :--- | :---: |
| 9ABC | SS | ATa RR DKe EBr | 1 |
| 9ABC | SS | ATa JC DKe EBr | 1 |

## Example B

This is a slightly more complicated example of consistent grouping. It's a simple Block again with the same 4 subjects to be scheduled in parallel, but as well as the 2 History activities [His-1 and His-2], there are 2 in Geography as well [called Geo-1 and Geo2, split-taught, with 2 different Geography Teachers].
As before you have to ensure that all the groups remain inside the Block and do not get mixed up with different subjects ...but this time there are more permutations.

## Art

His-1 His-2
Geo-1 Geo-2
............. Spanish

There are 4 permutations of the History \& Geography teachers.
If the History staff are RR \& JC; and the Geography staff are DKe \& SW then you could have:

- RR teaching at the same time as DKe - so JC teaches at the same time as SW
- RR teaching at the same time as SW - so JC teaches at the same time as DKe

There are 2 ways to tackle this:

## Method 1.

The simpler way is to just choose the pairings and enter them that way, as 2 blocks again.
Rather than choose the pairings at random, a better way is to:
Look at the parts of the timetable already scheduled and see how many cases there are of
RR+DKe teaching together in the same team, and similarly: RR+SW; JC+SW; JC+DKe.
Whichever are the pairings used most frequently, use the same pairings again now.
Reason: if RR+SW teach together elsewhere on the timetable then they are more likely to be free together, to teach together in this block.
If that were the choice [RR+SW, and therefore JC+DKe] then the 2 blocks would be: The Global DayBlock Code is 2 in this example (it can be what you like as long as it is unique in this Year).

| 9A | Art ATa His RR | Art ATa His JC |
| :---: | :---: | :---: |
| 98 | Geo SW | Geo DKe |
| 98 | Spa EBr 2 | Spa EBr 2 |
|  | SS | SS |
|  | 2 | 2 |

## Method 2.

If you want to give TimeTabler the freedom to choose the pairings (and swap them as necessary) then you could use the Container Block method described later ...but if you also need that method for other parts of the same Year then it will get complicated and we wouldn't recommend it.

## Example C

This is a structure, often used in Key Stage 3, which can be a problem for the timetabler.
The example below shows Year-8 of a 3 -form-entry school, with Classes/Forms called 8A, 8B, 8C.
For some subjects [Eng, Fre, His, Art, Dr, RE] the staff have agreed that the students are divided up into 3 populations/streams/rows according to their attainment in English. Or it may just be that they are in their Registration groups.
At other times of the week the students are divided up for the other subjects [Mat, Sci, Tec, Geo, Mus, PE, PSE, Ga, ICT] according to their attainment in Maths. A top, a middle and a bottom group.
This structure may be used to get groups with a narrower range of ability, or may be because you have only one teacher of (say) French or of Music.


The 'English' subjects on the 3 rows can slide against each on the timetable. For example, 8A-English may sometimes be taught at the same time as 8 B -French and 8 C -Art, at various times of the week.
Similarly the 'Maths' subjects can slide against each other, only. So a single Music teacher can teach all 3 Music groups, etc.
But it is clearly absolutely essential that the 'English' subjects are never mixed up with the 'Maths' subjects, because they have different populations. See the next 5 pages for the correct way to schedule it.

## Example D

This is a very similar structure, but now the Maths has been separated out as a Maths Block (with 5 sets) and the 3 rows/populations at the right-hand side are now based on the students' attainment in Science.

|  | Maths | English-based ... |  |  |  |  |  | Science-based ... |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8A [30] | $\begin{aligned} & \text { M } \\ & \text { Mat } \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \text { Eng } 4 \\ \text { SSSS } \end{array}$ | Fre 3 SSS | $\begin{aligned} & \text { His } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Art } 1 \\ & S_{S} \end{aligned}$ | $\begin{aligned} & \mathrm{Dr}_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { RE. } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Sci } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \text { Tec } 2 \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { Geo } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Mus } 1 \\ & \mathrm{~S} \end{aligned}$ | PE. 1 <br> S ${ }_{1}$ | $\begin{aligned} & \text { PSE } 2 \\ & \text { SS }_{2} \end{aligned}$ | $\begin{aligned} & \mathrm{Ga}_{2} \\ & \mathrm{D}_{1} \end{aligned}$ | $\begin{aligned} & \text { ICT } 1 \\ & \mathrm{~S} \end{aligned}$ |
| 8B [30] | $\begin{aligned} & \text { Mat } \\ & \text { Mat } \end{aligned}$ | $\begin{array}{\|l\|l} \text { Eng } 4 \\ \text { SSSS } \end{array}$ | $\begin{aligned} & \text { Fre } 3 \\ & \text { SSS }^{2} \end{aligned}$ | $\begin{aligned} & \text { His } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Art } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{Dr}_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { RE. } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Sci } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \text { Tec } 2 \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { Geo } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Mus } \\ & \mathrm{S} \end{aligned}$ | $\begin{aligned} & \text { PE. } 1 \\ & S_{2} \end{aligned}$ | $\begin{aligned} & \text { PSE }_{2} \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \mathrm{Ga}_{2} \\ & \mathrm{D}_{2} \end{aligned}$ | $\begin{aligned} & \text { ICT } \\ & S_{1} \end{aligned}$ |
| 8C [30] | ssss | $\begin{array}{\|l\|l} \hline \text { Eng } 4 \\ \text { SSSS } \end{array}$ | $\begin{aligned} & \text { Fre }_{3} \\ & \text { sss } \end{aligned}$ | $\begin{aligned} & \text { His } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Art } \\ & \mathrm{S} \end{aligned}$ | $\begin{aligned} & \mathrm{Dr}_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { RE. } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{Sci}_{3} \\ & \mathrm{DS} \end{aligned}$ | $\begin{aligned} & \text { Tec } 2 \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { Geo } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Mus } 1 \\ & S_{S} \end{aligned}$ | PE. 1 <br> S 3 | $\begin{aligned} & \text { PSE } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \mathrm{Ga}_{2} \\ & \mathrm{D}_{3} \end{aligned}$ | s |

As for Example C the 2 'sliding' parts must be kept in different periods of the week, so that the different populations do not get mixed up.

The method that we suggest for both these structures is the Consistent Grouping ID method. Using this method TimeTabler ensures that the 'English-based' subject-groups are never scheduled into the same periods as the 'Science-based' subject-groups.
There are more details on the next three pages. See also the video.
Note: This method is recommended when you have a structure with only two sliding parts, as here. It is simpler to apply than the other (Container Block) method.
If, in a large school, you have other (parallel) Bands, also with 'sliding' consistently-setted parts, then you can use this method there as well. For three sliding parts see Example H .
But if you have several sliding parts (within a Band or cohort) then you will find it better to use the more more-complex Container Block method (see Example I and/or consult the Support Centre.

## Example D, step by step

## Step 1 The principle

We choose a Class Scheduling Name for each grouping, as shown here:


Geo
SS
Geo
ss
Geo
ss

Class Scheduling Names 8A, 8B and 8C refer to the English-based classes.
Class Scheduling Names 8a, 8b, 8c refer to the Science-based classes.
[You can choose whatever (single) letters you wish.]
For Maths, across the full Year (or Band), we will also need a Class Scheduling Name of 8ABC.
Each of these classes can also be given a Printing Name of whatever will make most sense to your colleagues, see below.

## Step 2 Basic Data

The screenshot shows these classes entered on the Classes
Screen (see section C6 in your Manual and the HelpMovies about the Classes Screen):

They have been sorted into the best order (shown here) for later screens and for printouts, by using Sort - Custom.

These Class Scheduling Names are used when you enter the Year 8 activities into the Batch. This is explained in more detail on the next page.
The Printing Name is what will be shown to your colleagues on the final Printouts. It can be changed at any time.

| \%98 Classes | (3) |
| :---: | :---: |
| Scheduling Name | Printing Name |
| 8 A |  |
| 8 B |  |
| 8 C |  |
| 8 ABC (composite) | Year 8 |
| 8 a | 8 P |
| 8 b | 8Q |
| 8 c | 8R |

Then, still on the Classes Screen, click on Advanced as shown, to go to the Consistent Grouping (classes cannot co-exist) Screen.

## Advanced

Consistent Grouping

Tick to enable this feature and then enter the Class Scheduling Names, as shown here:
Make sure that you enter a joint Group ID (we've used 'a' in this example).
This tells TimeTabler that 8A, 8B, 8C cannot co-exist with 8a, 8b, 8c.
It ensures that lessons for classes labelled ' $a$ ' are scheduled into the same periods of the week.

It ensures that the classes are displayed in the correct groupings on the screens and the printouts.

In this example we've used $8 \mathrm{~A}, 8 \mathrm{~B}, 8 \mathrm{C}, 8 \mathrm{a}, 8 \mathrm{~b}, 8 \mathrm{c}$, but you can use whatever letters of the alphabet you wish. Just remember to use only one (unique) letter in each Scheduling Name.

Note : Remember that you only have to enter this data once, and then you can re-use it year after year (unless your curricular structure changes radically).

Example D, continued...

## Step 3 Entering the Year 8 activities into the Batch:

For 'English-based' subjects like English, French, History, etc:
8A SSSS En1 for Class 8A, using the Pure Class wizard
8B SSSS En2 for Class 8B, using the Pure Class wizard
Pure Class
8C SSSS En3 for Class 8C, using the Pure Class wizard
where En1 is replaced by the initials of the actual English teacher. Similarly for French, History, etc.

For 'Science-based' subjects like Science, Technology, Geography, etc:
8a DS Sc1 for groups in 8a, using the Pure Class wizard
8b DS Sc2 for groups in 8b, using the Pure Class wizard
8c DS Sc3 for groups in 8c, using the Pure Class wizard

Pure Class
where Sc1 etc is replaced by the initials of the actual Science teacher. Similarly for Technology, etc.
Pools. For subjects that are taught only once per week (cycle) it is helpful to use Pools (see the HelpMovie and Section C20 in the Manual for the advantages \& limitations). For example, for Music, where the Music Pool might contain 2 or 3 teachers, but it doesn't matter who teaches 8 a or 8 b or 8 c , then:

| 8 a | S | $=\mathrm{Mu}$ |
| :--- | :--- | :--- |
| 8 b | S | $=\mathrm{Mu}$ |
| 8 c | S | $=\mathrm{Mu}$ |

For any subject-group that is taught by 2 teachers at the same time (for example, boys+girls PE):

| 8a | S | PE1 PE2 | for the 8a group, using the Simple Block wizard |
| :--- | :--- | :--- | :--- |
| 8b | S | PE3 PE4 | for the 8b group. Similarly for 8c. |

For subjects across the whole band or year
For the 5 Maths sets (in this example school) you enter :
8ABC SSSS Ma1 Ma2 Ma3 Ma4 Ma5 using the Simple Block wizard where Ma1 is replaced by the initials of the first Maths teacher, etc.

S $=M u$
c $\mathrm{S}=\mathrm{Mu}$
[Note that you only have to enter 8ABC to cover all 3 classes, even though there are 5 Maths sets/staff.]

On the Curriculum Diagram Screen (see sections D5, D21; HelpMovies, HelpScreens) check that the structure is correct, and that the totals add up correctly to equal the full cycle.

The 8a, 8b, 8c activities will show the ' $a$ ' ID to remind you, as shown here:
You may also find it useful to view the activities via: Open List-View

| 8 a | a <br> Sci 3 <br> DS | a <br> Tec 2 D | a Geo 2 SS | a Mus 1 S | a <br> PE. 1 PE. S | a <br> PSE 2 <br> SS | a <br> Ga 2 <br> D | $\begin{array}{ll} \text { a } & \\ \text { ICT } & 1 \\ \mathrm{~S} & \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 b | a Sci 3 DS | a <br> Tec 2 D | a Geo 2 SS | a Mus 1 S | a <br> PE. 1 PE. S | a <br> PSE 2 SS | a <br> Ga 2 <br> D | $\begin{array}{ll} \text { a } & \\ \text { ICT } & 1 \\ \mathrm{~S} & \end{array}$ |
| 8c | a <br> Sci 3 <br> DS | a <br> Tec 2 D | a Geo 2 SS | a <br> Mus 1 S | a <br> PE. 1 PE. S | a <br> PSE 2 SS | a <br> Ga 2 D | $\begin{aligned} & \mathrm{a} \\ & \mathrm{ICT}_{1} \\ & \mathrm{~S} \end{aligned}$ |

## Step 4 Scheduling this Year 8

In the first year of using this method you may wish to experiment with some 'dummy runs' to find the best sequence to use [remember you can re-use the data in the batches as often as you like].
It seems clear that it would be best to schedule Year 8 progressively. But what should be placed first? Unless you find a better sequence for your data, then we strongly suggest the following sequence:
0. Load the Year 8 Batch into the schedule (which already has Year 9, etc, scheduled).

1. On the Visual Builder Screen, use the Filter button wint 'Blocks only' filter, so that only the Maths Block is shown on the Priority List:

Then place the Maths Block (SSSS) first, interactively, in a good pattern.

Criteria to filter on:

## Block or Pure: Blocks only

Note : If you have Sci, Tec, Games lessons in Double-periods and the structure of your day doesn't have many Doubleperiods in it, then you may need to place the Maths carefully so as to leave a sufficient number of Doubles for Sci, Tec, Ga.
2. Then use the Filter button Custom filter, so that only the 'English-based' lessons for 8A* are shown on the Priority List:

Criteria to filter on:

* We've said 8 A here, but in fact the best one to use is whichever one of $8 \mathrm{~A}, 8 \mathrm{~B}, 8 \mathrm{C}$ looks to be the tightest to schedule. This might be because of any Part-timers due to teach that class.

Set the Fully-automatic mode to: If AutoFIT can't help: Stop \& tell me immediately * (?)
and then run Fully-Automatic, to place all (just) these 8A 'English-based’ lessons (12 periods).
Or you can use 'Semi-Automatic' <F2>, or Interactive if you prefer to keep more control.
Either way, FIT will be used to make any 'musical-chairs' moves that are necessary.
It's really helpful to work on dual-monitors, with the Class Timetable Screen showing on the $2^{\text {nd }}$ one. Check that the Class Timetable looks sensible, with just the 8ABC and 8A lessons placed. Make any adjustments you think are necessary, using the Move button.
Note: there are empty periods at this stage, and that is where the Science-based 'a' lessons will go. Is it a good pattern?
3. Still working progressively, section by section, use the

Criteria to filter on:
Filter button to select 8a. ie. the 'Science-based' class that corresponds to 8A (ie. the class used in Step 2):
Class: $8 \mathrm{a} \rightarrow$

Run Fully-Automatic (or Semi-auto, <F2>) again, to place all these 'Science-based' lessons for 8a.
4. Then change the Filter Consistent Grouping so that only the (remaining) 'Science-based' 'a' lessons for Criteria to filter on: 8abc are shown in the Priority List:

```
Consistent Grouping ID: Year 8 (a')
```

Then run Fully-Automatic (or Semi-automatic, <F2>) again, to place all these 'Science-based' lessons for ( 8 a ) $8 \mathrm{~b}, 8 \mathrm{c}$ ( 14 periods of the week in this example).
Check the Class Timetable is sensible. All the 'Science-based' lessons must be in the same periods.
5. Now turn OFF the Filter so that the remaining lessons (for $8 \mathrm{~B}, 8 \mathrm{C}$ ) are shown on the Priority List. Then run Fully-Auto (or Semi-auto) again, to place these remaining lessons.

Check the Class Timetable again. To see the clearest display use the Style button so:
Style
Style
There is more about the Screen Displays, and about Printouts on pages 8-9.
If you have another (parallel) Band in Year 8, then do the same for that Band.
See also the diagrams on page 19 and HelpMovie 24A.

## Screen Displays

For Example D above we have recommended the best order to use on the Classes Screen, by using the Sort button, Sort - Mum Custom, to get an order of classes like that shown here for Example D:

| Kan Classes |  |
| :--- | :---: |
| Scheduling Name | Printing Name |
| 8 A |  |
| 8 B |  |
| 8 C |  |
| $8 \mathrm{ABC} \quad$ (composite) | Year 8 |
| 8 a | 8 C |
| 8 b | 8 Q |
| 8 C | 8 C |

When you enter the activities into the Batch for Year 8 then you get a Curriculum Diagram like this:
$\mathrm{T}_{\mathrm{T}}$ Curriculum Diagram


Batch: Consistent Example D
Run Analyses

| To Edit, select an Activity and either double-click on it, or use: |  |  |  |  |  | F2 the Wizard F4 the Advanced screen |  |  |  | Or right-click on an activit |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8A [30] | M <br> Mat1 JHa <br> Mat2 JM <br> Mat3 FHi <br> Mat4 JV | Eng A.lo 4 SSSS | $\begin{aligned} & \text { Fre LM } 3 \\ & \text { SSS } \end{aligned}$ | $\begin{aligned} & \text { His RR } 2 \\ & S S \end{aligned}$ |  |  | $\mathrm{Sal}_{\mathrm{KJ}}{ }_{3}$ DS | a Geo DKe 2 SS | $\begin{aligned} & \text { a } \\ & \text { Mus }=\text { Mu } 1 \\ & S \end{aligned}$ | a <br> PE. AS <br> PE. SM 1 <br> S <br> 1 | $\begin{aligned} & \text { a } \\ & \text { Ga AS } 2 \\ & \text { D } \\ & \quad 1 \end{aligned}$ |  |
| 8 B [30] | $\begin{aligned} & \text { Mat5 VH } 4 \\ & \text { SSSS } \end{aligned}$ | Eng JR 4 SSSS | $\begin{aligned} & \text { Fre JPa } 3 \\ & \text { SSS } \end{aligned}$ | $\begin{aligned} & \text { His } J C_{2} \\ & \text { SS } \end{aligned}$ |  |  | a <br> Sa RPa 3 DS | a Geo DKe 2 SS | $\begin{aligned} & \text { a } \\ & \text { Mus }=\text { Mu } 1 \\ & S \end{aligned}$ | a <br> PE. AS <br> PE. SM 1 <br> S <br> 2 | $\begin{aligned} & \text { a } \\ & \mathrm{Ga} A S_{2} \\ & \mathrm{D} \\ & \quad 2 \end{aligned}$ | $\begin{aligned} & \mathbf{a} \\ & \mathrm{Tec} V \end{aligned}$ D |
| totals, should | Maths block across | Eng VP 4 SSSS <br> 'English-b with singl Hist, Dram | FrefE 3 <br> SSS <br> ased' grou teachers <br> a. The T | His JC 2 SS <br> ps, for 8A or Eng, acher and |  | 1 <br> BC, | a <br> Sci JSi 3 <br> DS <br> 'Scie | a <br> Geo DKe 2 SS | a <br> Mus =Mu 1 <br> S <br> roups, in ro | a <br> PE. ABe <br> PE. SO 1 <br> S <br> 3 | $\begin{aligned} & \text { a } \\ & \text { Ga AS } 2 \\ & \mathrm{D} \\ & \quad 3 \end{aligned}$ | $\begin{aligned} & \text { a } \\ & \text { Tec } H \\ & \mathrm{D} \end{aligned}$ |

'Science-based' groups, in rows for 8a, 8b, 8c. The Consistent Grouping ID = 'a', with a pair of teachers for PE; while Music has teachers in a 'Pool'.

When you are scheduling you get a display on the Class Timetable Screen,
with the classes shown in the same order:
During scheduling it's best if Style Class view Int Show 'composite' classes is ticked.
Later, ensure that at $\square$ Style Class view int Show 'composite' classes is UN-ticked, so it's displayed as here:

In the screenshot shown here the Teacher + Subject + Room are seen, but there are many other possibilities, as shown at the Style button


| C89 Class |  | $\begin{aligned} & \text { Class: 8ABC (Year 8) with the following Team: } \\ & \text { JHa Maths ML19 } \\ & \text { JM Maths ML18 } \end{aligned}$ |  |  |  |  |  |  |  | FHi Mat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Display of each dass's timetable (with any Special Locations at the bottom) : |  |  |  |  |  |  |  |  |  |  |
|  | Monday |  |  |  |  |  | Tuesday |  |  |  |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 |
| 8A a | $\begin{gathered} \text { DW } \\ \text { Mus } \\ \text { L21 } \end{gathered}$ | $\begin{gathered} \mathrm{M} \\ \mathrm{yHa} \\ \mathrm{Mat} \\ \mathrm{c} 1 \end{gathered}$ | $\begin{array}{\|l\|l} \hline \begin{array}{l} \text { RR } \\ \text { His } \\ L 30 \end{array} \end{array}$ | $\begin{array}{\|l\|l\|l\|l\|l\|l\|} \hline \begin{array}{l} \text { Eng } \\ \text { L6 } \end{array} \end{array}$ | $\begin{array}{\|l\|l\|} \hline \mathrm{LM} \\ \mathrm{Fre} \\ \mathrm{~L} \end{array}$ | $\begin{aligned} & \text { AFr. } \\ & \begin{array}{l} \text { RE. } \\ \text { an } \end{array} \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \text { KJo } \\ \text { Sc } \\ \text { L4 } \end{array}$ | $\left[\begin{array}{l} \text { AHa } \\ \hline \text { PSE } \\ \hline 5 \end{array}\right.$ |  |  |
| 8B b | $\begin{aligned} & \hline \mathrm{KNog} \\ & \text { ICT } \\ & \text { C15 } \end{aligned}$ | $\begin{aligned} & \text { JM } \\ & \text { Mat } \\ & \text { Li8 } \\ & \text { HHi } \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \mathrm{JPa} \\ \mathrm{Fe} \\ \mathrm{Le} \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|c\|} \hline \text { Art } \\ \text { Art } \end{array}$ | $\begin{array}{\|l\|l} \hline J R \\ D_{1} \\ L 7 \end{array}$ | $\begin{array}{\|l\|l\|} \hline \text { JR } \\ \text { Eng } \\ \hline 8 \end{array}$ | $\begin{array}{\|c\|c\|} \hline \text { DW } \\ \text { Mus } \\ \text { L21 } \end{array}$ | $\left[\begin{array}{l} \text { DKe } \\ \text { Geo } \\ \text { Len } \end{array}\right.$ |  |  |
| 8 Cc | $\begin{array}{\|l\|l\|} \hline \text { PHa } \\ \text { PSE } \\ \text { LS } \end{array}$ | $\begin{aligned} & \text { Mat } \\ & \text { L1 } \\ & \text { Mat } \end{aligned}$ | $\begin{aligned} & \hline \mathrm{JR} \\ & \mathrm{Dr} \\ & \mathrm{Lr} \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \text { VP } \\ \text { Eng } \\ \text { L2 } \end{array}$ | $\begin{array}{\|l\|l} \hline \mathrm{JC} \\ \mathrm{His} \\ \mathrm{His} \\ \mathrm{~L} \end{array}$ | $\begin{array}{\|c\|c\|} \hline \text { Brt } \\ \text { Art } \\ \text { L1 } \end{array}$ |  | $\begin{aligned} & \mathrm{HB} \\ & \mathrm{Fec} \\ & 10 \end{aligned}$ | $\begin{aligned} & \text { DKe } \\ & \text { Geo } \\ & \text { Ge } \end{aligned}$ | $\begin{aligned} & \hline \hline \mathrm{KJo} \\ & \mathrm{KCT} \\ & \mathrm{CT} \\ & \hline 15 \end{aligned}$ |
| $\uparrow$ <br> Class / row is shown |  | $\uparrow$ <br> Full <br> Year block for Math |  |  | , Fre, | His, |  | Scienc roups a, 8b, |  |  |

## Printouts

This same Sort order can help to get clear Printouts for your colleagues.

## Class pattern

On the Advanced Printing Screen (section J8 in your Manual) for the

- Exclusive
'master' Class Timetable Printout you have a choice:
- Inclusive
(O) All-inclusive

If you have a problem to solve, the 1st may be clearer (but takes up more space).
If you have more than one band then the 2nd may be clearer.
The 3rd may be best if you only have a single band in the Year (Example D) and want compact printouts.

It can be useful to have a Cell Design of:

Advanced Printing Options


Because this Cell Design includes the Class ' $\mathbf{c}$ ' then the Printouts show explicitly which are the 'English-based' groups (8A, 8B, 8C) and which are the 'Science-based' groups (8a, 8b, 8c, but given Printing Names of 8P, 8Q, 8R), like this:


Compare this with the Class Timetable Screen on the previous page.
You can go back at any stage and change the Subject colour (on the Subjects Screen).
To edit the rooming, use the Room Timetable Screen.
An alternative to including the Class ' $\mathbf{c}$ ' is to include the Teaching Group Name ' $\mathbf{g}$ ': $g$ (teaching group) v

To Export the completed timetable to your MIS, see the separate document on this topic, either by visiting the KnowledgeBase in the Support Centre, or by clicking the Export button:

## Example E

Here is a structure common in the first years of Scottish schools.


At some times of the week the students are in 2 forms/classes of (large) 'non-practical' subject groups. At other times of the week they are re-grouped into 3 (smaller) 'practical' groups for some subjects.
This structure, and several variations of it, are discussed in full detail in a separate document which you can find by visiting www.timetabler.com/scotland

As there are just two 'sliding' parts, the best method is to use a Consistent Grouping ID ('p' in this case). As in Examples C and D, it will work even if you have only one Music teacher, one Drama teacher, etc.

## Example F

An equivalent structure is often used for creating smaller consistent sets for students to study separate sciences [Physics, Chemistry, Biology], in 'setted' groups, perhaps in Year 9.

|  | Ma, En setted |  | Registration Groups. |  |  |  |  |  |  |  |  | Science-based, 5 sets |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9A [30] | M Mat Mat Mat | $\begin{aligned} & \text { E } \\ & \text { Eng } \\ & \text { Eng } \\ & \text { Eng } \end{aligned}$ | $\begin{aligned} & \mathrm{Fre}_{3} \\ & \text { sSS } \end{aligned}$ | $\begin{aligned} & \text { His } \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Geo } 2 \\ & \text { SS } \end{aligned}$ | PE. 1 PE. <br> s | $\begin{aligned} & \mathrm{Tec}_{2} \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { RE. } 1 \\ & \mathrm{~S} \end{aligned}$ | $\text { Mus }_{1}$ | $\begin{aligned} & \mathrm{Dr}_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { PSE }_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Art }_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Phy } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Che } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Bio } 3 \\ & \mathrm{DS} \\ & \hline \end{aligned}$ |
| 9 B [30] | Mat 3 sss | $\begin{aligned} & \mathrm{Eng}_{3} \\ & \text { SSS } \end{aligned}$ | $\begin{aligned} & \mathrm{Fre}_{3} \\ & \text { sss } \end{aligned}$ | $\begin{aligned} & \text { His } \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \text { Geo } 2 \\ & \mathrm{SS} \end{aligned}$ | $\begin{aligned} & \text { PE. }{ }^{1} \\ & \text { PE. } \\ & \text { S } \end{aligned}$ | $\begin{aligned} & \text { Tec } 2 \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { RE. } 1 \\ & \mathrm{~S} \end{aligned}$ | $\text { Mus }_{1}$ s | $\begin{aligned} & \mathrm{Dr}_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { PSE }_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Art } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Phy }{ }^{2} \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Che } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \mathrm{Bio} 3 \\ & \mathrm{DS} \\ & \hline \end{aligned}$ |
| 9C [30] |  |  | $\mathrm{Fre}_{3}$ sss | $\begin{aligned} & \text { His } \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \mathrm{Geo}_{2} \\ & \mathrm{SS} \end{aligned}$ | $\begin{aligned} & \text { PE. }{ }^{1} \\ & \text { PE. } \\ & \text { S } \end{aligned}$ | $\begin{aligned} & \text { Tec } 2 \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { RE. } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Mus } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{Dr}_{1} \\ & \mathrm{~s} \end{aligned}$ | $\begin{aligned} & \text { PSE }_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Art }{ }_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Phy }{ }^{2} \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Che } 3 \\ & \text { DS } \end{aligned}$ | $\begin{array}{\|l} \hline \mathbf{x} \\ \text { Bio } \\ \text { DS } \end{array}$ |
| 9 P [30] |  |  | $\mathrm{Fre}_{3}$ SSS | $\begin{aligned} & \text { His } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \mathrm{Geo}_{2} \\ & \mathrm{SS} \end{aligned}$ | $\begin{aligned} & \text { PE. }{ }^{1} \\ & \text { PEE. } \\ & \text { S } \end{aligned}$ | $\begin{aligned} & \text { Tec } 2 \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { RE. } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Mus } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{Dr}_{1} \\ & \mathrm{~s} \end{aligned}$ | $\begin{aligned} & \text { PSE } 1 \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { Art }{ }_{1} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Phy }{ }_{3} \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \mathrm{x} \\ & \text { Che } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \hline x \\ & \mathrm{Bio}_{3} \\ & \text { DS } \end{aligned}$ |
| 9E [15] |  |  |  |  |  |  |  |  |  |  |  |  | x <br> Phy <br> DS <br> DS | $\begin{aligned} & x \\ & \text { Che } 3 \end{aligned}$ DS | $\mathbf{x}$ <br> $\mathrm{Bio}_{3}$ <br> DS |

As for Examples C, D, E, the 2 'sliding' parts must be kept in different periods of the week, so that the different populations do not get mixed up.
You may need only one Music teacher etc, but you need at least 2 Physics teachers (because a Physics teacher teaching 3 groups means 9 periods, the full width of the block. Similarly for Chemistry, Biology.

The best method to use here is the Consistent Grouping ID (the ID is ' $x$ ' in this example).
Using this method TimeTabler ensures that the 'Registration-based' subject-groups are never scheduled into the same periods as the 'Science-based' subject-groups.
There are more details on the next three pages. See also the video, HelpMovie 24A.

## Example F, step by step

## Step 1 The principle

We choose a Class Scheduling Name for each grouping, as shown here:

Class Scheduling Names 9A, 9B, 9C, 9D refer to the Tutor-Group-based classes, with a 'dummy' 9E.
Class Scheduling Names 9a, 9b, 9c, 9d, 9e refer to the five Science sets/rows.

| 9A | $\begin{aligned} & \mathrm{Fre}_{3} \\ & \mathrm{SSS} \end{aligned}$ | $\begin{aligned} & \text { His } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \mathrm{Geo}_{2} \\ & \mathrm{SS} \end{aligned}$ | 9 a | $\text { Phy }_{3}$ DS | Che 3 DS | $\begin{aligned} & \mathrm{Bio} 3 \\ & \mathrm{DS} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 B | $\mathrm{Fre}_{3}$ SSS | His 2 SS | $\begin{aligned} & \mathrm{Geo}_{2} \\ & \mathrm{SS} \end{aligned}$ | 9b | Phy 3 DS | Che 3 DS | $\begin{aligned} & \mathrm{Bio}_{3} \\ & \text { DS } \end{aligned}$ |
| 9 C | $\mathrm{Fre}_{3}$ SSS | $\mathrm{His}_{2}$ SS | $\begin{aligned} & \mathrm{Geo}_{2} \\ & \mathrm{SS} \end{aligned}$ | 9 c | Phy 3 DS | Che 3 DS | $\mathrm{Bio}_{3}$ DS |
| 9 D | $\mathrm{Fre}_{3}$ SSS | $\begin{aligned} & \text { His } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & \mathrm{Geo}_{2} \\ & \mathrm{SS} \end{aligned}$ | 9d | Phy 3 DS | Che 3 DS | $\begin{aligned} & \text { Bio } 3 \\ & \text { DS } \end{aligned}$ |
| 9 E |  |  |  | 9 e | Phy 3 DS | Che 3 DS | $\begin{aligned} & \mathrm{Bio} 3 \\ & \text { DS } \end{aligned}$ |

For Maths \& Games across the full Year (or Band), we also need a Class Scheduling Name of 9ABCDE.

## Step 2 Basic Data

The screenshot shows these classes entered on the Classes Screen (see section C6 in your Manual and the HelpMovies about the Classes Screen) :

They have been sorted into the best order (shown here) for later screens and for printouts, by using Sort - $^{\text {nnt }}$ Custom.

These Class Scheduling Names are used when you enter the Year 9 activities into the Batch. This is explained in more detail on the next page.

The Printing Name is what will be shown to your colleagues on the final Printouts. It can be changed at any time.

| $4{ }^{\text {P }}$ Classes | (3) |
| :---: | :---: |
| Scheduling Name | Printing Name |
| 9 A |  |
| 9 B |  |
| 9 C |  |
| 9 D |  |
| 9 E |  |
| 9 ABCDE (composite) | Year 9 |
| 9 a | Sci Set-1 |
| 9 b | Sci Set-2 |
| 9 c | Sci Set-3 |
| 9 d | Sci Set-4 |
| 9 e | Sci Set-5 |

Then, still on the Classes Screen, click on Advanced as shown, to go to the Consistent Grouping (classes cannot co-exist) Screen.

## Advanced 7

Consistent Grouping

Tick to enable this feature and then enter the Class Scheduling Names, as shown here:
Make sure that you enter a joint Group ID (we've used ' $\mathbf{x}$ ' in this example).
This tells TimeTabler that 9A, 9B, 9C, 9D, 9E cannot co-exist with 9a, 9b, 9c, 9d, 9e.
It ensures that lessons for classes labelled ' $\mathbf{x}$ ' are scheduled into the same periods of the week.

It ensures that the classes are displayed in the correct groupings on the screens and the

Consistent Grouping (cannot co-exist) ©

| This class ... | ... cannot co-exist with this class | Group ID |
| :---: | :---: | :---: |
| 9A | 9 a (Sci-1) | x |
| 9B | 9 b (Sci-2) | x |
| 9 C | 9 c (Sci-3) | x |
| 9D | 9d (Sci-4) | x |
| 9E | 9e (Sci-5) | x | printouts.

In this example we've used 9A, 9B, 9C, 9D, 9E, 9a, 9b, 9c, 9d, 9e, but you can use whatever letters of the alphabet you wish. Just remember to use only one (unique) letter in each Scheduling Name.

Note : Remember that you only have to enter this data once, and then you can re-use it year after year (unless your curricular structure changes radically).

## Step 3 Entering the Year 9 activities into the Batch:

For 'Registration-based' subjects like French, History, etc:
9A SSS Fr1 for Class 9A, using the Pure Class wizard
9B SSS Fr2 for Class 9B, using the Pure Class wizard

```
Pure Class
```

9C SSS Fr3 for Class 9C, using the Pure Class wizard
9D SSS Fr4 for Class 9D, using the Pure Class wizard
where Fr1 is replaced by the initials of the actual French teacher. Similarly for History, Geography, etc.
Pools. For subjects that are taught only once per week (cycle) it is helpful to use Pools (see the HelpMovie and Section C20 in the Manual for the advantages \& limitations). For example, for Music, where the Music Pool might contain 2 or 3 teachers, but it doesn't matter who teaches 9A or 9B or 9C or 9D, then:

| 9A | $S$ | $=M u$ |
| :--- | :--- | :--- |
| $9 B$ | $S$ | $=M u$ |
| $9 C$ | $S$ | $=M u$ |
| 9D | $S$ | $=M u$ |

```
Pure Class
```

For any subject-group that is taught by 2 teachers at the same time (for example, boys+girls PE):

| 9A | S | PE1 PE2 | for the 9A group, using the Simple Block wizard |
| :--- | :--- | :--- | :--- |
| 9B | S | PE3 PE4 | for the 9B group. Similarly for 9C, 9D. |

```
Simple Block
```

For the 'Science-based' subjects of Physics, Chemistry, Biology:
9a DS Ph1 for Physics in 9a, using the Pure Class wizard

```
Pure Class
```

9b DS Ph2 for Physics in 9b, using the Pure Class wizard
9c DS Ph3 for Physics in 9c, using the Pure Class wizard
9d DS Ph4 for Physics in 9d, using the Pure Class wizard
9e DS Ph5 for Physics in 9e, using the Pure Class wizard
where Ph1 etc is replaced by the initials of the actual Physics teacher. Similarly for Chemistry, Biology.

For subjects across the whole band or year
For the 4 Maths sets (in this example school) you enter :
9ABCDE SSS Ma1 Ma2 Ma3 Ma4 using the Simple Block wizard
where Ma1 is replaced by the initials of the first Maths teacher, etc. Similarly for English.


On the Curriculum Diagram Screen (see sections D5, D21; HelpMovies, HelpScreens) check that the structure is correct, and that the totals add up correctly to equal the full cycle.

The 9a, 9b, 9c, 9d, 9e activities will show the ' $\mathbf{x}$ ' ID to remind you, as shown here:
You may also find it useful to view the activities via:

continued..

## Step 4 Scheduling this Year 9

In the first year of using this method you may wish to experiment with some 'dummy runs' to find the best sequence to use [remember you can re-use the data in the batches as often as you like].
It seems clear that it would be best to schedule Year 9 progressively. But what should be placed first? Unless you can find a better sequence for your data, then we strongly suggest the following sequence:
0. Load the Year 9 Batch into the schedule (which already has Year 10, etc scheduled).

1. On the Visual Builder Screen, use the Filter button "uma 'Blocks' filter, so that only the Blocks for 9ABCDE are shown on the Priority List:
Then place the Maths \& English Blocks first, interactively, in a good pattern.

Criteria to filter on:

Note: If you have Sci and Tec lessons in Double-periods and the structure of your day doesn't have many Double-periods in it, then you may need to place the lessons carefully so as to leave a sufficient number of Doubles for Sci and Tec.
2. Then use the Filter button

Criteria to filter on: so that only the 'Registration-based' lessons for 9A* are shown on the Priority List:

| Criteria to filter on: |
| :---: |
| Class : 9A |

* We've said 9A here, but in fact the best one to use is whichever one of 9A, 9B, 9C, 9D looks to be the tightest to schedule. This might be because of any Part-timers due to teach that class.

Set the Fully-automatic mode to:
If AutoFIT can't help: Stop \& tell me immediately * (?)
and then run Fully-Automatic, to place all (just) the 9A 'Registration-group' lessons (15 periods). Or you can use 'Semi-Automatic' <F2>, or Interactive if you prefer to keep more control. Either way, FIT will be used to make any 'musical-chairs' moves that are necessary.
It's really helpful to work on dual-monitors, with the Class Timetable Screen showing on the $2^{\text {nd }}$ one. Check that the Class Timetable looks sensible, with just the 9ABCDE and 9A lessons placed.
Make any adjustments you think are necessary, using the Move button.
Remember that there will be 9 empty periods at this stage, and that is where the Science will go. Will it be a good pattern?
3. Still working progressively, section by section, use the Filter button to select 9 a. ie. the 'Science-based' class that corresponds to the class used in Step 2):

Criteria to filter on:
Class: 9 a

Run Fully-Automatic (or Semi-auto, <F2>) again, to place all these 'Science-based' lessons for 9a.
4. Then change the Filter Consistent Grouping so that only the (remaining) Science ' $x$ ' lessons for 9abcde Criteria to filter on: are shown in the Priority List:

```
Consistent Grouping ID: Year 9 ('x')
```

Then run Fully-Automatic (or Semi-automatic) again, to place all these 'Science-based' lessons for (9a) 9b, 9c, 9d, 9e (9 periods of the week in this example).
Check the Class Timetable is sensible. All the 'Science-based' lessons must be in the same 9 periods.
5. Now turn OFF the Filter so that the remaining lessons (for 9B, 9C, 9D) are shown on the Priority List. Then run Fully-Auto (or Semi-auto) again, to place these remaining lessons.

Check the Class Timetable again. To see the clearest display use the Style button so:
Style $n+$ Class View
Style
There is more about the Screen Displays, and about Printouts on pages 14-15.
If you have another (parallel) Band in Year 9, then do the same for that Band.
See also the diagrams on page 19 and HelpMovie 24A.

## Screen Displays

For Example F above we have recommended the best order to use on the Classes Screen, by using the Sort button, Sort - Custom, to get an order of classes like that shown here for Example F:

When you enter the activities into the Batch for Year 9 then you get a Curriculum Diagram like this:

| \%90 Classes | (3) |
| :---: | :---: |
| Scheduling Name | Printing Name |
| 9 A |  |
| 9 B |  |
| 9 C |  |
| 9 D |  |
| 9 E |  |
| 9 ABCDE (composite) | Year 9 |
| 9 a | Sci Set-1 |
| 9 b | Sci Set-2 |
| 9 c | Sci Set-3 |
| 9 d | Sci Set-4 |
| 9 e | Sci Set-5 |

## $\mathrm{T}_{\mathbf{T}}$ Curriculum Diagram

Hatch: Worked Example F
Run Analyses


When you are scheduling you get a display on the Class Timetable Screen,
with the classes shown in the same order:
During scheduling it's best if Style Class view IIIt Show 'composite' classes is ticked.
Later, ensure that at $\square$ Style Class view is UN-ticked, so it's displayed as here:

In the screenshot shown here the Teacher + Subject + Room are seen, but there are many other possibilities, as shown at the Style button



## Printouts

This same Sort order can help to get clear Printouts for your colleagues.

## Class pattern

On the Advanced Printing Screen (section J8 in your Manual) for the

- Exclusive
'master' Class Timetable Printout you have a choice:
- Inclusive
(O) All-inclusive

If you have a problem to solve, the 1st may be clearer (but takes up more space).
If you have more than one band then the 2nd may be clearer.
The 3rd may be best if you only have a single band in the Year (Example F) and want compact printouts.

It can be useful to have a Cell Design of:

Advanced Printing Options


Because this Cell Design includes the Class ' $\mathbf{c}$ ' then the Printouts show explicitly which are the full Form groups (9A, 9B, etc) and which are the smaller 'Science' groups (9a, 9b, etc, which have been given Printing Names of 'Sci Set-1' etc. on the Classes Screen, like this:


Compare this with the Class Timetable Screen on the previous page.
You can go back at any stage and change the Subject colour (on the Subjects Screen).
To edit the rooming, use the Room Timetable Screen.
An alternative to including the Class ' $\mathbf{c}$ ' is to include the Teaching Group Name ' $\mathbf{g}$ ': $g$ (teaching group) -

To Export the completed timetable to your MiS, see the separate documents on this topic, either by visiting the KnowledgeBase in the Support Centre, or by clicking the Export button:

## Example G

This is like Example F but now includes some simple blocks (for PE and for Physics).


Including Blocks necessarily makes it more difficult to schedule, because there is less solution-space.
The PE blocks are entered in the usual way:

```
9AB
9CD \(S\) PE3 PE4
S PE1 PE2
```

Simple Block

The Physics Block is also entered in the same way: 9ab DS Ph1 Ph2
Simple Block
but because it is in the ' $x$ ' area, we also need to specify that this Simple Block must not mix up with the 'non-x' subjects, by specifying on the Consistent Grouping ID Screen, either (better): 9AB 9ab (Set $1 / 2$ ) $x$ or (less good) just:
$9 A \quad 9 a b($ Set $1 / 2) \quad x$

The entries should then show:

| \%易 Classes | (3) |
| :---: | :---: |
| Scheduling Name | Printing Name |
| 9 A |  |
| 9 B |  |
| 9 AB (composite) |  |
| 9 C |  |
| 9 D |  |
| 9 CD (composite) |  |
| 9 E |  |
| 9 ABCDE (composite) | Yr 9 |
| 9 a | Sci Set-1 |
| 9 b | Sci Set-2 |
| 9 ab (composite) | Set 1/2 |
| 9 c | Sci Set-3 |
| 9 d | Sci Set-4 |
| 9 e | Sci Set-5 |

Consistent Grouping (cannot co-exist)

| This class $\ldots$ | $\ldots$ cannot co-exist with this class | Group ID |
| ---: | :--- | :---: |
| 9 A | 9 a (Sci Set-1) | x |
| 9 B | 9 b (Sci Set-2) | x |
| 9 AB | 9 ab (Set 1/2) | x |
| 9 C | 9 c (Sci Set-3) | x |
| 9 D | 9 d (Sai Set-4) | x |
| 9 C | 9 e (Sci Set-5) | x |

When deciding the best sequence for scheduling, see the suggestions for Example F. You may need to decide whether to give any priority to the PE and Physics blocks, or not.

## Example H

Here is a more complicated structure. It is like Example D but with three sliding parts.

|  | Maths | English-based 8A, 8B, 8C |  |  |  | Science-based |  |  |  |  | Humanities-based |  |  | 8X, 8Y, 8Z |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8A [30] | M <br> Mat <br> Mat <br> Mat <br> Mat | Eng 4 SSSS | Fre 3 SSS | Art 1 S | $\begin{aligned} & \text { Dr } 1 \\ & \mathrm{~S} \end{aligned}$ | a $\mathrm{Sci}_{3}$ DS | $\begin{aligned} & \mathrm{a} \\ & \mathrm{Tec} 2 \\ & \mathrm{D} \end{aligned}$ | a <br> PE. <br> PE. 1 <br> S | a $\mathrm{Ga}_{2}$ D 1 | $\begin{aligned} & \mathrm{a} \\ & \text { ICT }_{1} \\ & \mathrm{~S} \end{aligned}$ | b <br> $\mathrm{His}_{2}$ SS | b <br> $\mathrm{GeO}_{2}$ <br> SS | b <br> RE. 1 <br> S | $\begin{aligned} & \text { b } \\ & \text { PSE }_{2} \\ & \text { SS } \end{aligned}$ | b <br> Mus 1 S |
| 8 B [30] | Mat 4 SSSS | Eng 4 SSSS | Fre 3 SSS | Art 1 S | $\begin{aligned} & \text { Dr } 1 \\ & \mathrm{~S} \end{aligned}$ | a Sci 3 DS | $\begin{aligned} & \mathrm{a} \\ & \mathrm{Tec} 2 \\ & \mathrm{D} \end{aligned}$ | a <br> PE. <br> PE. 1 <br> S | $\begin{aligned} & \mathrm{a} \\ & \mathrm{Ga} \mathrm{a}_{2} \\ & \mathrm{D} \\ & \quad 2 \end{aligned}$ | $\begin{aligned} & \mathrm{a} \\ & \text { ICT }_{1} \\ & \mathrm{~S} \end{aligned}$ | b <br> $\mathrm{His}_{2}$ SS | b <br> $\mathrm{GeO}_{2}$ SS | b <br> RE. 1 <br> S | $\begin{aligned} & \mathbf{b} \\ & \mathrm{PSE}_{2} \\ & \mathrm{SS} \end{aligned}$ | b <br> Mus 1 S |
| 8C [30] |  | Eng 4 SSSS | Fre 3 SSS | Art 1 S | $\begin{aligned} & \text { Dr } 1 \\ & \mathrm{~S} \end{aligned}$ | a <br> Sci 3 DS | $\begin{aligned} & \mathrm{a} \\ & \mathrm{Tec} 2 \\ & \mathrm{D} \end{aligned}$ | a <br> PE. <br> PE. 1 <br> S | $\begin{aligned} & \mathrm{Ga}_{2} \\ & \mathrm{D} \\ & \quad 3 \end{aligned}$ | $\begin{aligned} & \text { a } \\ & \text { ICT }_{1} \\ & \mathrm{~S} \end{aligned}$ | b <br> $\mathrm{His}_{2}$ SS | b <br> $\mathrm{GeO}_{2}$ <br> SS | b <br> RE. 1 <br> S | $\begin{aligned} & \mathbf{b} \\ & \text { PSE }_{2} \\ & \text { SS } \end{aligned}$ | b <br> Mus 1 S |

The first question to ask yourself is : is it necessary, from a curricular or pedagogical viewpoint? If it is, then see the 4 steps of Example D.
You will need to pay attention to the period-breakdown of each sliding section; in the example above the 'Science-based' section may be tricky because of the 3 Singles and the 3 Doubles on each row. Sections with fewer periods are generally harder to schedule than sections with more periods.

The Classes Screen will look like this, with 10 classes:

| \%易Classes | (3) |
| :---: | :---: |
| Scheduling Name | Printing Name |
| 8 A |  |
| 8 B |  |
| 8 C |  |
| 8 ABC (composite) | Year 8 |
| 8 a (consistent-group 'a') | 8 P |
| 8 b (consistent-group 'a') | 8Q |
| 8 C (consistent-group 'a') | 8R |
| 8 X (consistent-group 'b') |  |
| 8 Y (consistent-group 'b') |  |
| 8 Z (consistent-group 'b') |  |

You need two Consistent Grouping IDS ('a' and 'b' in this example):
Consistent Grouping (cannot co-exist)

| This class $\ldots$ | $\ldots$ cannot co-exist with this class | Group ID |
| :---: | :---: | :---: |
| 8 A | $8 \mathrm{a}(8 \mathrm{P})$ | a |
| 8 B | $8 \mathrm{~b}(8 \mathrm{Q})$ | a |
| 8 C | $8 \mathrm{c}(8 \mathrm{R})$ | a |
| 8 A | 8 X | b |
| 8 B | 8 Y | b |
| 8 C | 8 Z | b |

The IDS ('a' and 'b' in this example) block 8A/B/C and $8 \mathrm{a} / \mathrm{b} / \mathrm{c}$ and $8 \mathrm{X} / \mathrm{Y} / \mathrm{Z}$ against each other, so that the activities do not mix.

We strongly recommend you follow the best sequence during scheduling:

1. Filter to 'Blocks only' and assign the lessons of the Maths block, interactively.
2. Filter to Class 8A* [top row, English-based] and assign those lessons fully-automatically or $<$ F2> semi-automatically. Use the Class Timetable Screen to check the pattern.

* We've said 8 A here, but in fact the best one to use is whichever one of $8 \mathrm{~A}, 8 \mathrm{~B}, 8 \mathrm{C}$ looks to be the tightest to schedule.

3. Filter to Class 8a* [ie. corresponding row, Science-based], assign those lessons fully-automatically or <F2> semi-automatically. Use the Class Timetable Screen to check the pattern, use 'Move' if necessary.
4. Filter to Consistent Grouping 'b' [Humanities section] and assign all those lessons fully-automatically or <F2> semi-automatically, using FIT as necessary. Use the Class Timetable Screen to check it.
5. Switch off the Filter, and assign all the remaining lessons fully-automatically or <F2> semiautomatically, using FIT as necessary. Use the Class Timetable Screen to check the pattern.
Or you could change the sequence of steps (2), (3), (4). For example, do (3) before (2).
See also the sections about Screen Displays, and about Printouts on pages 8-9.
See also the diagrams on page 19 and HelpMovie 24A. Consult the Support Centre if necessary.

## Example I

Here is a structure used very commonly in Sixth Forms (Years 12-13):

|  | Cont A [5] |  |  | Cont B [5] |  | Cont C [5+1] |  |  | ContD [ $5+1$ ] |  | ContE [3] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12A [0+25] | $\begin{aligned} & 1 \text { Mat }] H^{\text {DSSS }} \end{aligned}$ |  | 1 | $\begin{aligned} & \text { Phy } \mathrm{KJ} 5 \\ & \text { DSSS } \end{aligned}$ |  |  | $\begin{aligned} & \text { Che } \mathrm{RC}_{3} \\ & \mathrm{DS} \end{aligned}$ | $\begin{aligned} & \text { Che PW } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & 1 \mathrm{Bio} \mathrm{MC}_{3} \\ & \mathrm{DS} \end{aligned}$ | $\text { Bio GWa } 2$ SS | $\begin{aligned} & 1 \underset{\text { Mat FH }}{2} \\ & \text { SS } \end{aligned}$ |
| $12 \mathrm{~B}[0+25]$ | $\begin{aligned} & 2 \operatorname{His~RR~}_{3} \\ & \text { SSS } \end{aligned}$ | $\begin{aligned} & \mathrm{His}_{\mathrm{HS}}^{2} \\ & \mathrm{SS} \end{aligned}$ | 2 | $\begin{aligned} & \text { Eng JR } 5 \\ & \text { DSSS } \end{aligned}$ |  | 2 | $\text { Tec } A K 5$ DSSS |  | $\begin{aligned} & 2 \text { ECO } 4 V^{2} \\ & \text { DSS } \end{aligned}$ | $\begin{aligned} & \mathrm{Eco} \mathrm{Cl}_{1} \\ & \mathrm{~S} \end{aligned}$ | $2 \underset{S S}{\operatorname{G.SDA}_{2}}$ |
| 12C [0+25] | $\begin{aligned} & 3 \text { Geo DK } 4 \\ & \text { DSS } \end{aligned}$ | $\begin{aligned} & \text { Geo GM } 1 \\ & \mathrm{~S} \end{aligned}$ | 3 | $\begin{aligned} & \text { Psy vP } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \text { Psy AH } 2 \\ & \text { SS } \end{aligned}$ | 3 | $\begin{aligned} & \text { Geo DK } 3 \\ & \text { DS } \end{aligned}$ | $\begin{aligned} & \text { Geo SW } 2 \\ & \text { SS } \end{aligned}$ | $\begin{aligned} & 3 \mathrm{Spa}_{\mathrm{DSSS}} 5 \end{aligned}$ |  | $\begin{aligned} & 3 \operatorname{Lit~DS~}_{5} 1 \end{aligned}$ |
| 120 [0+25] | $\begin{aligned} & 4 \text { Eng A.J } 4 \\ & \text { DSS } \end{aligned}$ |  | 4 | $\begin{aligned} & \text { Fre LM } 3 \\ & \text { SSS } \end{aligned}$ | $\begin{aligned} & \text { Fre } G S_{2} \\ & \text { SS } \end{aligned}$ |  | $\text { Art HL. } 4$ DSS | $\begin{aligned} & \text { Art BI } \\ & S \end{aligned}$ | $\begin{aligned} & 4 \text { Mat JWi } 2 \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \text { Mat AH } 3 \\ & \text { SSS } \end{aligned}$ | $\begin{aligned} & 4 \mathrm{Psy} \mathrm{KI}_{3} \\ & \mathrm{SSS} \end{aligned}$ |
| 12E [0+20] |  |  |  | $\text { Bio GWa } 3$ DS | $\begin{aligned} & \mathrm{Bio} M C_{2} \\ & \mathrm{SS} \end{aligned}$ |  | $\text { Eng } J R_{2}$ | $\begin{aligned} & \text { Eng DS } 3 \\ & \text { SSS } \end{aligned}$ | $\begin{aligned} & 5 \mathrm{DrAJ} 5 \\ & \\ & \\ & \text { DSSS } \end{aligned}$ |  | $\begin{aligned} & 5 \text { F.M JWi } 3 \\ & \text { SSS } \end{aligned}$ |
| 12F [0+9] |  |  |  |  |  | 6 | $\begin{aligned} & \text { Law AF } 4 \\ & \text { DSS } \end{aligned}$ |  |  |  | $\begin{aligned} & 6 \mathrm{Mus} \mathrm{DW}_{3} \\ & \text { SSS } \end{aligned}$ |

Blocks B-D have split-teaching for 3 or more subjects; Blocks C \& D have extra 'Spread'; some subjects do not have the full time-allocations (eg. in Block E) and so can slide around within the block time.

Although there is consistent setting here, with many permutations, this 'vertical' structure with 5 sections is very different from the 'horizontal' structures of Examples C-G.
In addition, Sixth Form blocks can often have a 'Spread' (for example, in Blocks C \& D, 5 lessons are allowed to spread out over 6 periods of the week).

For those reasons we do not suggest using the Consistent Grouping ID method here.
Instead we suggest that you use Container Blocks.
Using Container Blocks is more complex and takes longer, but the method can deal with the most complex curricular structures.
Container Blocks are explained in detail:

- in the printed Manual in Section I (Worked Examples 3, 4,5) and in Section H25, and
- in HelpMovie 47, and
- in the PDF titled "R-Reserving on the Container Block Screen", which you can download by going to the Support Centre and then typing the key word 'reserving' into the Search Box:
Q reserving SEARCH ©


## More about the best Scheduling sequence

Pages 7 and 13 give details of the best progressive method, a scheduling sequence for you to use. This page shows the same sequence, diagrammatically, for two of the earlier examples:

## Example D (pages 4-9)

The steps on page 7 give details of how to schedule the lessons, in the sequence shown by the red numbers (1)-(5). This sequence is the best for scheduling all the lessons, without clashes, quickly.

(5)
(3)


## Example F (pages 10-15)

The same principle applies in this case, of 4 registration groups A, B, C, D becoming 5 Science classes.

(1) First, assign any blocks across the year, like the Maths and English above.
(2) Second, reserve time-slots for the 'Registration Group' lessons, by assigning them (and only them). Here we've suggested 9A, but in practice it should be the (single) class that looks the most difficult to schedule (eg. because of Part-timers). Check they are in a good pattern and adjust them if necessary.
(3) Third, assign the corresponding row of Science subjects. 9a in this Example F (see page 11). This reserves time-slots for Science. Check it's a good pattern and adjust it if necessary.
(4) Fourth, assign the rest of the Science lessons. 9b, 9c, 9d, 9e in this example.
(5) Fifth, assign the remainder of the lessons. 9B, 9C, 9D in this example.

In each case the Filter is used to select only the activities that should be scheduled in that step.

In case of difficulty, consult the Support Centre by submitting a Ticket as in HelpMovie 4.

## Summary

Consistently-setted groups which can 'slide’ on the timetable can help you to provide a differentiated curriculum.
The consistently-setted groups can be organised by attainment/ability even if you have only one teacher required to teach more than one group. For example, a single French teacher may be able to teach more than one group in a structure of groups setted by attainment/ability.

However the structure may not be easy to schedule. To achieve a solution there are 3 possible methods:

- Use a Global DayBlocking ID, see Examples A and B.

For use only in Simple Blocks and only when there are few permutations.
In more complicated cases of a vertical block (like the Sixth Form) use a Container Block.
■ Use a Consistent Grouping ID, see Examples C, D, E, F, G, H. This is the most flexible method, and is easy to use.
The more periods/lessons in each sliding section, the easier it will be to schedule.
We strongly recommend that you do the scheduling in the sequence described on earlier pages. You may have to pay attention to the period-breakdown of the subjects in each row of the section if there is a mix of multiple-periods and single-periods.

■ Use a Container Block ID, see Example I.
This is the most complex method.
It is the only one that can allow a 'Spread'.
You will have to pay attention to the period-breakdown of the subjects in the block if there is a mix of multiple-periods and single-periods.

See also the video, HelpMovie 24A.

## Remember:

If you are in any doubt about which is the best method for Years in your particular school, then send in a Ticket to the free Support Centre (as in HelpMovie 4), remembering to attach a Curriculum Diagram so that we can see what your situation is.

Whichever method you choose to use, once you have entered the data for that Year into a Batch, it is essential to do a 'dummy run' in TimeTabler just for that Year alone. This way you can check the validity of the data and the logic of the method (and correct it if need be), before you start the true schedule.
If a Year won't work by itself then it cannot work when you are trying to schedule the entire school!
There is an article in the KnowledgeBase about doing dummy runs. It is called "How should I check my Batches, before scheduling?"

## Support Centre

If you hit a problem then you can search the KnowledgeBase, for example:


Finally : remember that once you have set up the batches for this method, you will not have to re-enter them next year. You can just tweak them as explained in HelpMovie 8.

[^0]
[^0]:    Our thanks to all those who have helped with testing these methods, and particularly Peter Knights-Branch and Terry Howe.

