Scheduling a 2-week timetable

There are 2 main types of 2-week timetables:

1. It is intended that week-B is very different from week-A

The philosophy behind this is to aim to reduce the Friday afternoon 'graveyard slot', so that the same classes are not repeatedly affected by Friday afternoons (or Bank Holiday Mondays).

In this method the full 2 weeks are often set up on the School Structure Screen, and the activity Batches contain lessons for the full 2 weeks. This method is discussed on pages 2–3.

Care is needed to ensure that the software and the human timetabler schedule a good balance of lessons between the 2 weeks, as well as a good quality spread of lessons over the fortnight.

A disadvantage of this method is the difficulty of ensuring that Part-timers have the same days off in each week (see pages 2 and 3). Part-timers usually much prefer to have the same days off in each week, for child-care, see: www.timetabler.com/improvingPart-timers.html

Alternative (better?) methods of making week-A different from week-B are discussed on page 3.

And another method, using the De-Interleave (week to fortnight) feature, is explained on page 5.

2. It is intended that week-B is the same, or almost the same, as week-A

The philosophy behind this is that the Head wishes to give some subjects a 'half-lesson' per week, perhaps to appease a subject department.

For example, by giving History 5 periods over a fortnight (split 3:2 or 2:3) it means History gets $2^{1/2}$ periods per week on average. A similar situation may apply to Geography. In practice it would mean that a class gets a History lesson one week and a Geography lesson in the other week in the same period, so they each get a 'half-lesson' on average.

In this method a 1-week timetable is scheduled with some periods having both History and Geography staff.

Then this 1-week timetable is Duplicated Then the History & Geography periods are simplified to be either History or Geography. See page 4.

An advantage of this method is that Part-timers automatically have the same days off each week. Another advantage is that it is easier to get a good balance & spread of lessons.

A variation of this method is to use <u>Duplicate (week to fortnight)</u> not at the end but at an earlier stage, for example just after all the Part-timers have been assigned, see page 3.

1. Week-B is to be very different from Week-A

If you are going to schedule your timetable as a 2-week timetable from the very start then the School Structure Screen will be set up something like this:

Some people use a style of A-Mon or 1-Mon. It is best to keep day-names short at this stage (for the screens) but you can lengthen them later if you wish.

In what follows we're assuming that Part-timers want the same times-off in each week.



On the Staff Availability Screen, ensure you set up the Part-timer days-off the **same** in both weeks, as explained at: www.timetabler.com/PDFs/PartTimerFeaturesinTimeTabler.pdf

T	Staff (&	Special I	lesource	es) Availa	oility / Par	-timers																																						- 0	×
	R	Staf	f Avail	ability																																									
	Mon	A	3 4	S	Tues-A	3	4	5	Wed	-A	3	4	S	Thurs-	A I	3 4	5	Fri-A	3 4	5	Mon-E	3	4	5	Tues	s-B	3 4	5	Wed+	В	3	4 5	1	hurs-8	3	4	5	Fri-B	3	4	S	Tot	Max	% PT	\square
:1	ta 🛛								×																				×				х									30	20	66 PT	:JHa
:1	4				F	F F		F																	F	E.	F	F F														40	18	45 PT	:JM

Note that while \mathbf{X} is fixed, \mathbf{F} and \mathbf{A} , \mathbf{P} are designed to be able to move ...but not necessarily move the same for both weeks.

So if the FFFFF in Week-A moves during scheduling, it is your responsibility to make sure that you immediately move the FFFFF in Week-B in the same way, in order to ensure that the Part-timer has the same days off in both weeks!

See also: Staff Availability Screen 🖛 Auto-assign 🖛

Copy Week-A to Week-B

Compare Week-A and Week-B

To see a large number of periods on the time-line (50 periods in the example above), it is much easier if you work using 2 screens, and at desktop is right-click screen resolution, choose 'Extend these displays' so that the 2 monitors act as a single wide screen.

To show different *TimeTabler* screens on the 2 monitors, also choose Customize Menu in Dual monitor mode, see: www.timetabler.com/SupportCentre/UsingDualMonitors.pdf

When you enter the activities in your Batches, in this method you will need to enter the full number of activities to fill your full 2-week timetable.

Don't forget to check the Statistics Screen and apply other tests and checks at: Check & Validate

	Activity Batches	You l	have 5 Batches.	
No.	Description	Updated	Total Lessons	Placed
1	Year 11 activities	14/1/20	256	0
2	Year 9 activities	14/1/20	281	0
3	Year 8 activities	18/12/19	282	0
4	Year 7 activities	23/12/19	258	0
5	Year 10 activities	14/1/20	262	0

Schedule in the usual way, interactively at first.

Regularly check any **F**, **A**, **P** markers to make sure that any Part-timers have the same days-off each week (see above). To make corrections, on the Staff Timetable Screen click to show the Palette.

3 Schedule

At each major stage you can also check for rhythm and quality using the Quality Report (see the next page).

continued...

Checking the Balance and Spread over the 2 weeks

After each major stage, you can easily check the Quality of your 2-week timetable at: Or Via: Check & Tidy

Ideally the 2 weeks of your timetable will have both Balance and Spread:

- Balance. For example, 5 lessons of a subject split 3:2 or 2:3 between the weeks, never 5:0.
- Spread. For example, French with a good rhythm through each week to support the pedagogy.

Quality Report

Selecting this item gives you a Quality Score, based on a number of parameters, for example: Class has an uneven rhythm/spread for this Subject

You can alter the 'Penalty' for each parameter, and it gives you reports like: 7A has an uneven rhythm for Fre (French)

Lesson Spread Screen

Selecting this item allows you to see the Lesson Spread over the 2 weeks for each Subject and each Class.

Lessons before Lunch are in green; lessons after Lunch are in red.

If a lesson looks wrongly positioned, you can try to move it to a better

position by using the two button, either on this screen or on the main Visual Builder Screen.

Or perhaps quicker, see Check & Tidy - Statistics & Staffing Menu - 2-week lesson spread

Other Reports tell you about Rooming, PPA Totals and Split-teaching.

An alternative method of making Week-B different from Week-A is as follows:

- Use Method 2 as on the next page. This gives a 2-week timetable with (near) identical weeks.
- On the Staff Timetable Screen look for entire blocks of time that you can swap, so that the timetable is different in each week. See Section F13 in your Manual.

For example, you might aim to swap Tuesday-periods-1+2 in Week-A with Tuesday-periods-3+4 in Week-A (only), so the sequence of lessons is different in the 2 weeks.

In practice, swapping these Double-periods will only be possible:

- if there are no Part-timers teaching on Tuesday-1-4, or

- if (all) the Part-timers are in school for the full Tuesday 1-4 periods (in this example).

It will also not be possible if (for example) you try to swap Tues-1 with Tues-3 but you have some Double-period lessons in Tues-1+2.

More ambitious swaps, eg. swapping Tues-1+2 for Tues-5+6 may only succeed if (all) your Part-timers are in school for the full day.

Another alternative (rarer) method of making Week-B different from Week-A is as follows:

- Enter Batches of some major activities for just 1 week, including all the activities involving Parttimers but not necessarily all the other activities.
- Use Method 2 as described on the next page ...but only use Duplicate when all the Part-timers' activities have been assigned, to get a 2-week timetable (with all the Part-timers having their time-off at the same times in both weeks).
- Load Batches with the remaining activities (with no Part-timers) and assign them.

Thus the Part-timers will be off at the same time in both weeks, but other activities can be at different times in the 2 weeks.

And another method, using the De-Interleave (week to fortnight) feature, is explained on page 5.



Quality Report: calculate

Quality Report

your Quality Score and

review potential issues.



2. Week-B is (almost) the same as Week-A

On the School Structure set up a single week (5-days or 6-days) in the usual way.

On the Staff Availability Screen specify the Part-timers using X and E, A, P as explained at: <u>www.timetabler.com/PDFs/PartTimerFeaturesinTimeTabler.pdf</u>

In your Batches enter just one week's worth of activities. ie. the correct number of lessons for one week of the timetable, **except**:

for those activities which alternate between Week-1 and Week-2, enter **both** sets of teachers into the one team.

For example, if for a Single period in Week-1 the students in a 9AB block will have teachers AB and CD

(perhaps for 2 French sets); and in Week-2 they will instead have teacher PQ and RS (perhaps for Spanish / Careers), then in the relevant Year 9 Batch enter an activity:

9AB S AB CD PQ RS

Caveat: This 'Duplicate' method will only work if your activities have up to 5 lessons, eg. DDSSS. If you have 6 (or more) lessons, then enter them as 2 activities (eg. 5+1).

Then schedule the timetable (as a one-week timetable) in the usual way.

After the schedule is entirely complete:

- Make a **Backup** in the AutoBackup Library (section C15 in your Manual)
 Auto-Backup Library Ctrl+A and then:
- Go to the Schedule Menu Schedule Change Duplicate Duplicate (week to fortnight)
 This will immediately change the schedule from one week to a fortnight of 2 identical weeks.
 Importantly, this method simply ensures that Part-timers have the same times-off in each week.

Then adjust the alternating periods in the 2 weeks.

For example, suppose that the example lesson above gets scheduled to Friday-period-3. You'll need to tidy-up periods like Friday-period-3, so that the correct staff are showing in each week. (ie. so that it is: **9AB S AB CD** in one week and it is **9AB S PQ RS** in the other week.)

There are two ways to do this (see below) ...the first way is the better one if you are intending to Export to your MIS, but the second way is faster.

Method A:

In the relevant periods (Friday-3 in each week in this example) on the Class Timetable Screen (section F15 in the Manual), Unassign this lesson (see F17).

Then go to the Batch, [it will now appear as **9AB SS AB CD PQ RS** with double the periods] and Edit the activity (see D7) so that it becomes 2 activities, on separate rows of the Activities Screen, as: **9AB S AB CD**

9AB S PQ RS

(Use the Subjects list or Lesson Details button, as necessary, to give each teacher the correct subject.) Then go back into the Schedule and assign one lesson to Fri-3 in Week-1 and the other to Fri-3 in Week-2. Repeat for any other alternating lessons.

Method B:

In the first relevant period (Friday-3 in Week-1) on the Class Timetable Screen (section F15 in the Manual), double-click to see the Edit Details Screen (see F14 in your Manual). Then use the Remove button to trim down the team to be correct for Week-1. eg. showing **AB CD** Then repeat for Fri-3 in Week-2, removing the alternate teachers. eg. showing **PQ RS**

Note: at some stage don't forget to go to Basic Data School Structure School Week, and change the names of the days in the second week.

continued...

-	Activity Batches	You	have 5 Batches	
No.	Description	Updated	Total Lessons	Placed
1	Year 11 activities	14/1/20	125	0
2	Year 9 activities	14/1/20	150	0
3	Year 8 activities	18/12/19	151	0
4	Year 7 activities	23/12/19	127	0
5	Hear 10 activities	14/1/20	131	0

3 Schedule

Checking the Balance and Spread

You should check the Balance and Spread of lessons after each major stage of timetabling, as explained on page 3.

Further work

Remember that it you wish to do further work on your schedule (perhaps because of a problem which only surfaces after you have duplicated and printed the timetable), then you still have the one-week version of the schedule in the AutoBackup Library, from where you can Restore it.

'De-Interleave' compared with 'Duplicate'

These are 2 methods provided in *TimeTabler* for converting a completed 1-week timetable into a 2-week timetable.

Note: that you shouldn't use either method until you are satisfied the 1-week timetable is complete.

Note: that in both methods you must make a Backup of the 1-week timetable, first, so that you can always go back to it if further work is needed (at any time during the school year). This is because the process is NOT reversible.

Duplicate is the simpler way; it simply creates a second week and copies an identical timetable into that second week. Then you can edit one or both weeks, as described on page 4.

Interleave is more difficult to work with until you get used to it. In this method you create a 1-week timetable with *twice* the expected number of periods per day ...and with future week-1 lessons in the odd periods and future week-2 lessons in the even periods!

Then when your 1-week timetable is complete, go to Schedule - Global change and run this De-Interleave function ...which creates the second week

and puts all the **odd** numbered periods in week 1, and all the **even** numbered periods in week 2. See the example below.

De-Interleave (week to fortnight)

The new schedule can then be printed & exported to your MIS, like any schedule.

			Mor	nday					Tue	sday					W	/ed				Thu	ırs				Friday			Tot
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1 2	3	4	5 6	1	2	3 4	5	6	Pds
11A	DW	RR	JHa	GM	LM	AJo	DW	LM	K	Jo	DA	RR	AJo	GM	JHa	DW	\$	\$	AJo	AS	5	KJo	GM	LM	JHa	RR	AJo	28
11B	MF	JC	JM FHi	EBr	JPa	JR SG	MF	JPa	RI	Pa	DW	JC	JR SG	EBr	JM FHi	MF	\$	\$	JR SG	ABe	e	RPa	EBr	JPa	JM FHi	JC	JR SG	28
11C	CC	2	JV	MJ	RR	CNe	RR	FE	FHi	AS	RI	Pa	CNe	MJ	JV	FE	\$	\$	CNe	RPa	a	DW	FE	RR	VL	MJ	CNe	28
11D	AV	v	VH	U DL	GM	VVI	GM	LWI	DA	SM	P	vv	VVI	JU	VH	MJ	Î	Î	VVI	PW	v I	SA	MJ	GM	VE	טנ	VV I	28

For example, it converts this 6-period-day, 1-week, schedule:

into this 3-period-day, 2-week, schedule:

	M	Monday-1			Tuesday-1			Wed-1			Thurs-1			Friday-1			Monday-B			Tuesday-B			Wed-B			Thurs-	-В	Friday-B			Tot
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	Pds
11A	DW	JHa	LM	DW	KJo	DA	AJo	JHa	\$	AJo	AS	KJo	GM	JHa	RR	RR	GM	AJo	LM	KJo	RR	GM	DW	\$	AJo	AS	KJo	LM	JHa	AJo	28
11B	MF	JM FHi	јРа	MF	кра	DW	SG	JM FHi	\$	SG	АВЕ	кра	EBL	JM FHi	JC	JC	EBL	SG	јРа	кра	JC	EBL	MF	\$	SG	АВЕ	кра	јРа	FHi	SG	28
11C	CC	JV	RR	RR	FHi	RPa	CNe	JV	\$	CNe	RPa	DW	FE	JV	MJ	CC	MJ	CNe	FE	AS	RPa	MJ	FE	\$	CNe	RPa	DW	RR	JV	CNe	28
11D	AVV		GM	GM	DA	PVV			\$	WI	PW	SA	UMJ	VIII (0	AVV	0		LIM	514	PVV	0	UM	\$	WI	PW	SA	GM	VIII .	W1	28

Note: that the conditions for structures such as Consistent-setting and Container Blocks are not retained so you cannot usefully do further scheduling on the De-Interleaved copy of the timetable! Do any further scheduling on the Backup and then de-interleave again.

Note: it only works fully if the initial timetable has activities where converting each D to become SS (=2 lessons now), stays within the maximum of 10 lessons per activity. *TimeTabler* checks for you. It may also be useful to convert a 6-period day to a 3-period socially-distanced one, if necessary?