How to convert from the clock time to Sundial time:

We need:

Location: ..……..
Locations Longitude: …….. °E
Time zone:…….
Longitude of the center of the timezone: (in Europe: 15 °E)

(In Europe it is the longitude where the time preceeds exactly one hour the time in Greenwich, England (0°E),and is called: CET, "Central European time").

Adjustment for location within the time zone:

(4° 84' = Longitude of the clinic where we hold the practicals in Belgium).

www.**latitude-longitude-finder**.com

4,84 – 15 = - 10.16 ° , which is the distance of the classroom to the center of the European timezone.

1° degree of difference in longitude or distance = 4 minutes of difference in time

-10,16° x 4 min. = **- 40.64** , or **41** minutes.

If the daylight saving time at your location is active, you will have to substract 1 hour more!

Daylight savingtime starts the on the last Sunday of March and ends on the last Sunday of October in Europe.

Finally you have to make an adjustment for the non conformity of the solar time (see the table below).

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For instance:

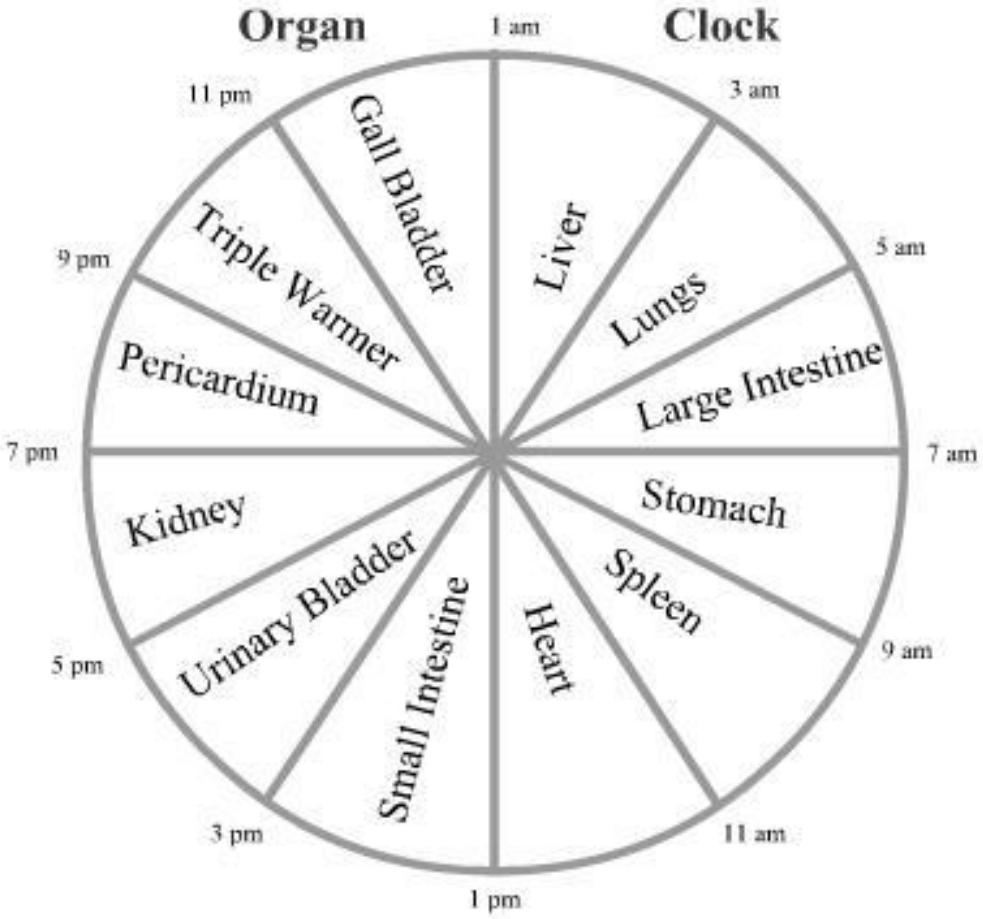
During practicals on, lets say, the 8th of August 2018 in Ramsel, Belgium.

At 12.00, clocktime, the actual solar time is:

12h – 41’ - 5’ – 1h = 10.14 h, a diference of **1 hour and 46 minutes**!!!

On the 8th of December 2018 however:

12h -41’ + 8’ = 11.27 h so a difference of: only **35 min**.



Adaptation of time (+/- minutes) for non conformity of solar time:												
Day	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
1	-3	-14	-13	-4	+3	+3	-3	-6	+1	+10	+16	+10
2	-4	-14	-12	-4	+3	+2	-4	-6	+1	+11	+16	+10
3	-4	-14	-12	-3	+3	+2	-4	-6	+1	+11	+16	+10
4	-5	-14	-12	-3	+4	+2	-4	-6	+1	+11	+16	+9
5	-6	-14	-12	-3	+4	+2	-4	-6	+2	+12	+16	+9
6	-6	-15	-11	-2	+4	+2	-4	-5	+2	+12	+16	+8
7	-7	-15	-11	-2	+4	+2	-4	-5	+2	+12	+16	+8
8	-7	-15	-11	-2	+4	+1	-5	-5	+3	+12	+16	+8
9	-8	-15	-11	-1	+4	+1	-5	-5	+3	+13	+16	+7
10	-8	-15	-10	-1	+4	+1	-5	-5	+3	+13	+16	+7

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11	-9	-15	-10	-1	+4	+1	-5	-5	+4	+13	+16	+6
12	-9	-15	-10	-1	+4	+1	-5	-5	+4	+14	+16	+6
13	-9	-15	-10	-1	+4	+1	-5	-4	+4	+14	+15	+5
14	-10	-15	-9	-1	+4	+1	-5	-4	+5	+14	+15	+5
15	-10	-15	-9	0	+4	0	-6	-4	+5	+14	+15	+4
16	-10	-14	-9	0	+4	0	-6	-4	+5	+14	+15	+4
17	-10	-14	-9	+1	+4	-1	-6	-4	+6	+15	+15	+3
18	-11	-14	-8	+1	+4	-1	-6	-4	+6	+15	+14	+3
19	-11	-14	-8	+1	+4	-1	-6	-3	+6	+15	+14	+2
20	-12	-14	-8	+1	+4	-1	-6	-3	+7	+15	+14	+2
21	-12	-14	-7	+2	+4	-1	-6	-3	+7	+15	+14	+1
22	-12	-14	-7	+2	+4	-2	-6	-3	+7	+15	+13	+1
23	-12	-14	-7	+2	+4	-2	-6	-2	+8	+16	+13	+1
24	-13	-14	-6	+2	+4	-2	-6	-2	+8	+16	+13	+1
25	-13	-13	-6	+2	+4	-2	-6	-2	+8	+16	+13	0
26	-13	-13	-6	+3	+3	-3	-6	-1	+9	+16	+12	0
27	-13	-13	-5	+3	+3	-3	-6	-1	+9	+16	+12	-1
28	-13	-13	-5	+3	+3	-3	-6	-1	+9	+16	+12	-1
29	-14	-13	-5	+3	+3	-3	-6	-1	+10	+16	+11	-2
30	-14		-5	+3	+3	-3	-6	0	+10	+16	+11	-2
31	-14		-4		+3		-6	0		+16		-3

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