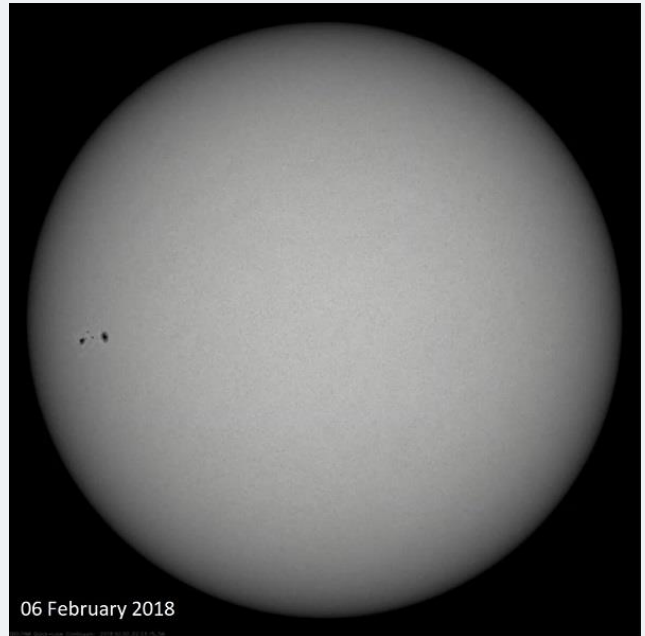
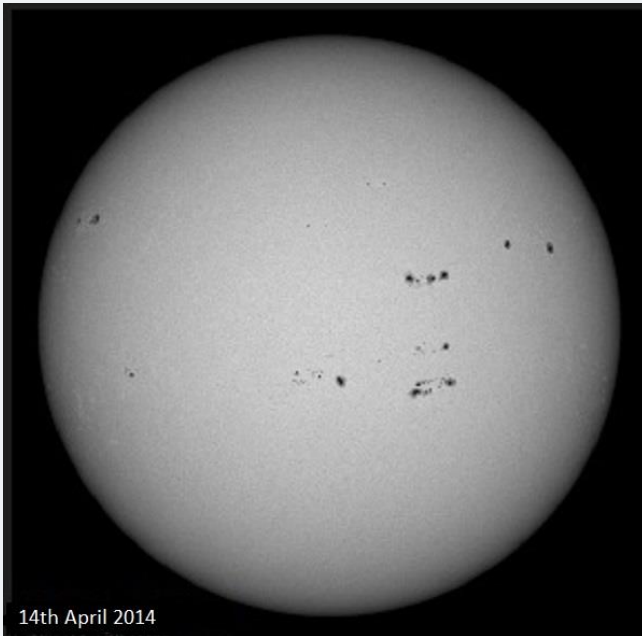




TASK 1

Look at the observations from the Solar Dynamics Observatory taken in 2014 and 2018 and record the number of sunspots in each.



Date of image	Sunspot count
April 2014	
February 2018	

TIP!
You may want to look at these images online so that you can zoom in

Does the Sun look the same in each image?

Compare the results and think about why there might be differences.



TASK 2

Open the **sunspot_cycle.xls** spreadsheet and using the data provided, plot the number of sunspots visible each day over the course of a year by choosing the 1997 and/or 2003 tabs:

1. Find the dates where there is a solar maximum (**most sunspots**):
2. Find the dates where there is a solar minimum (**least sunspots**):
3. What is the average number of sunspots each day?

1997:

2003:

TASK 3

Use the 100-years tab of the **sunspot_cycle.xls** spreadsheet to plot the number of sunspots visible each month over the whole data set. The solar cycle is the time from one solar minimum to the next. Study the data to answer the following questions:

Do you notice any pattern or correlation?

Average difference between each maximum:

Number of years in each solar cycle:

TASK 4

Use this to predict when our next solar maximum will be:

How accurate is this prediction and why?

What stage of the cycle are we currently in?

When will the next solar minimum be?