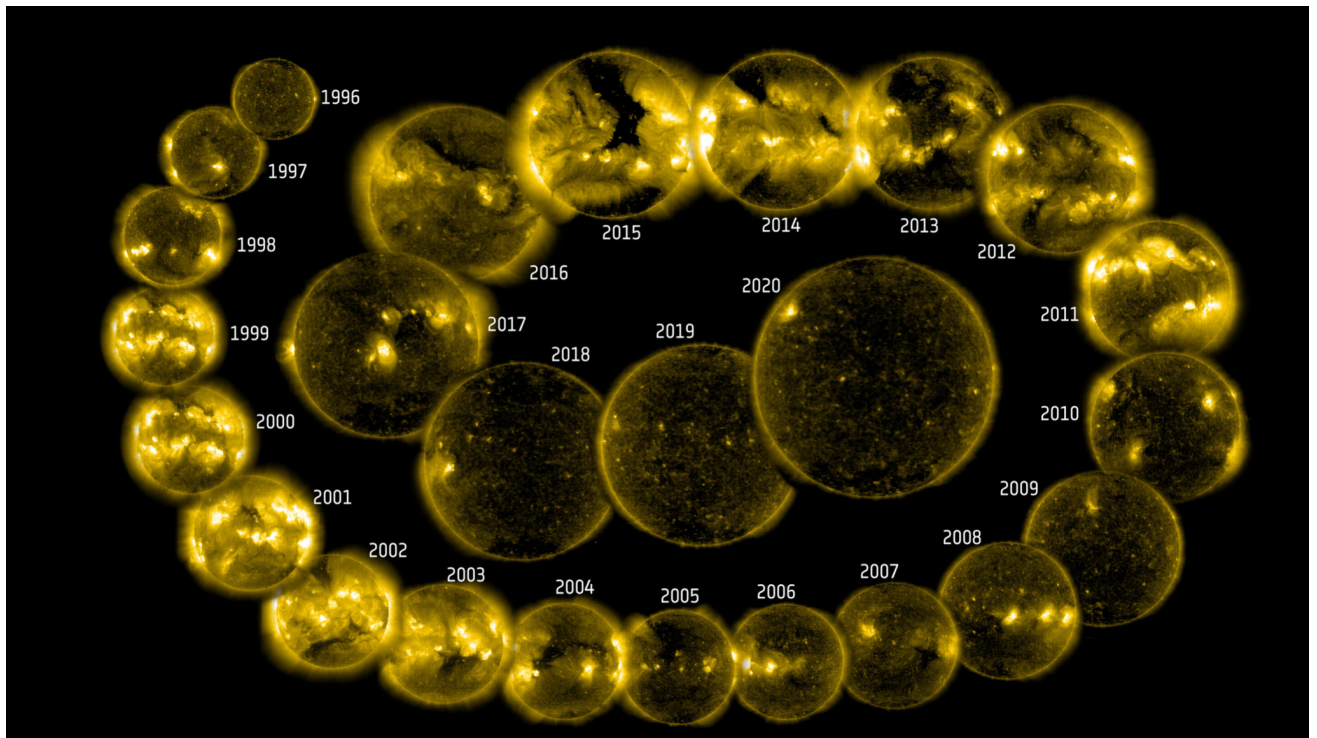
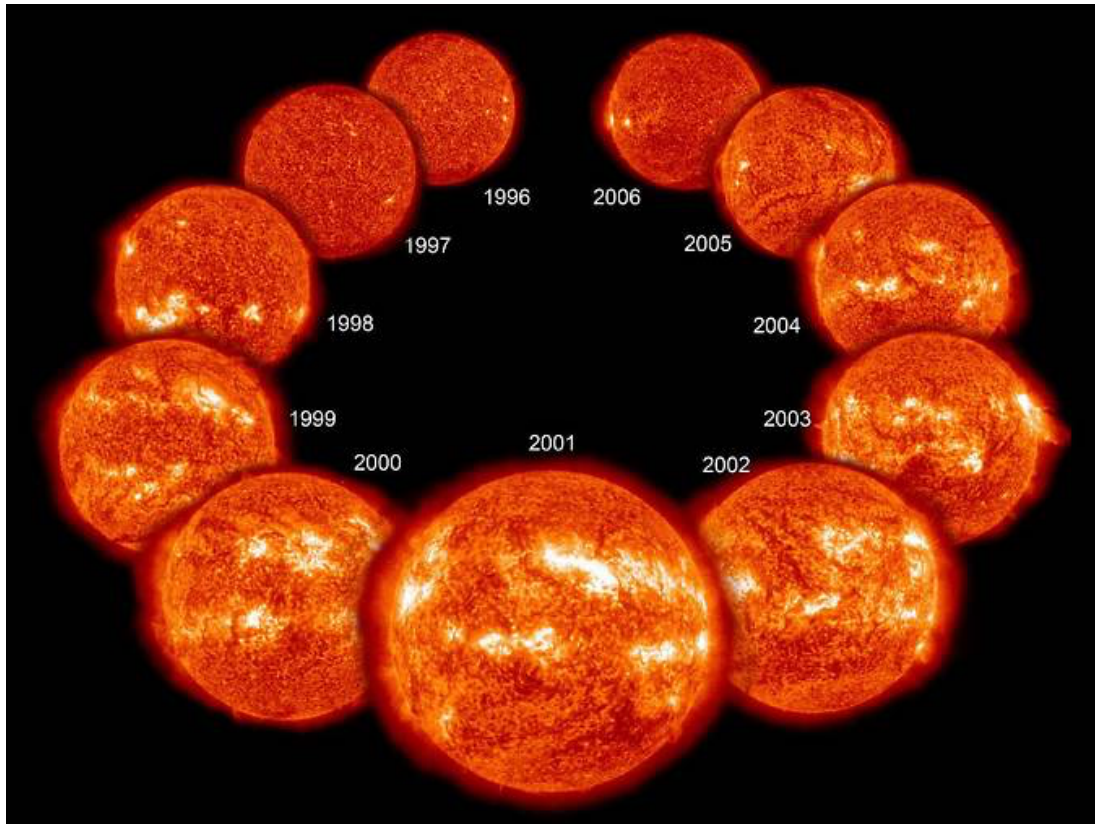
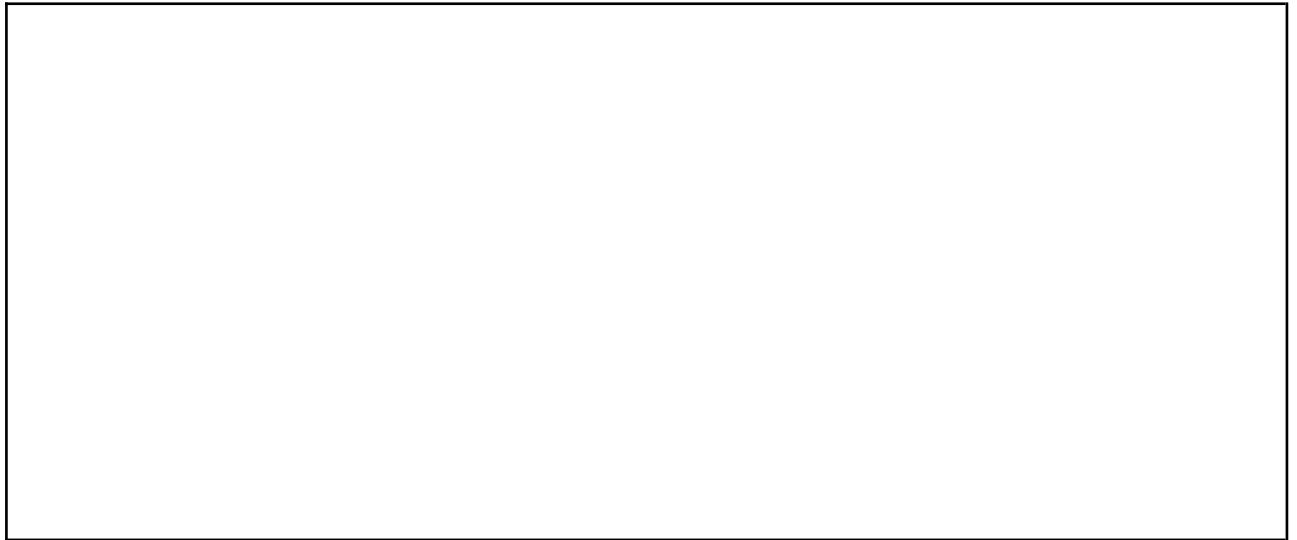
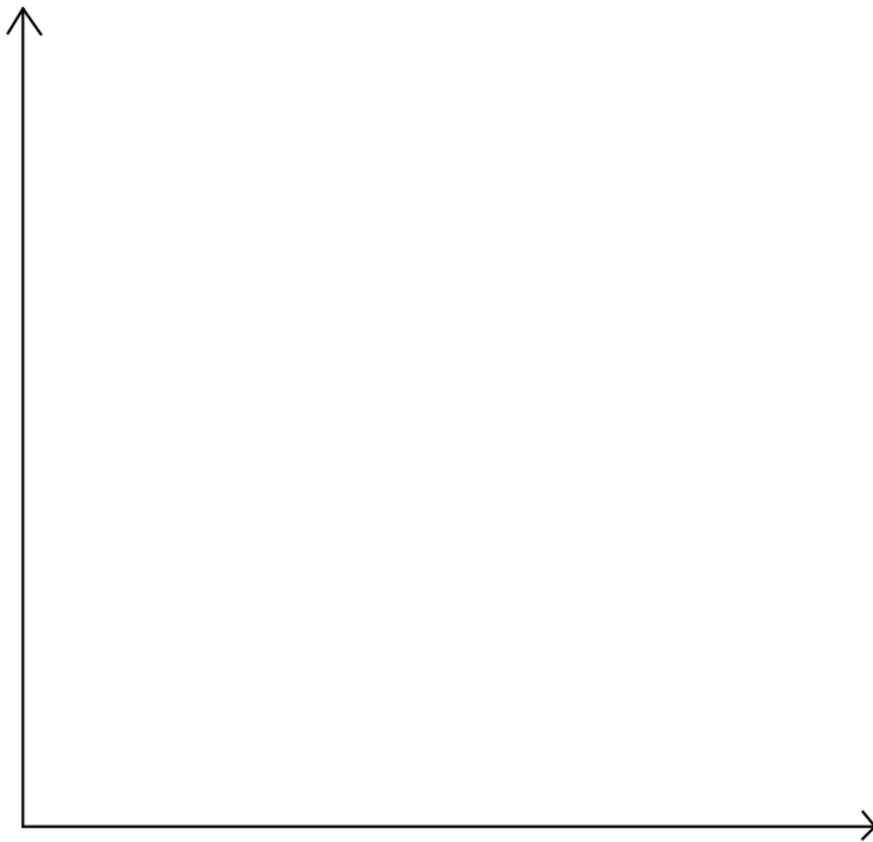


Q1. a) Examine the images of the Sun and describe why you think the Sun looks different in each image.



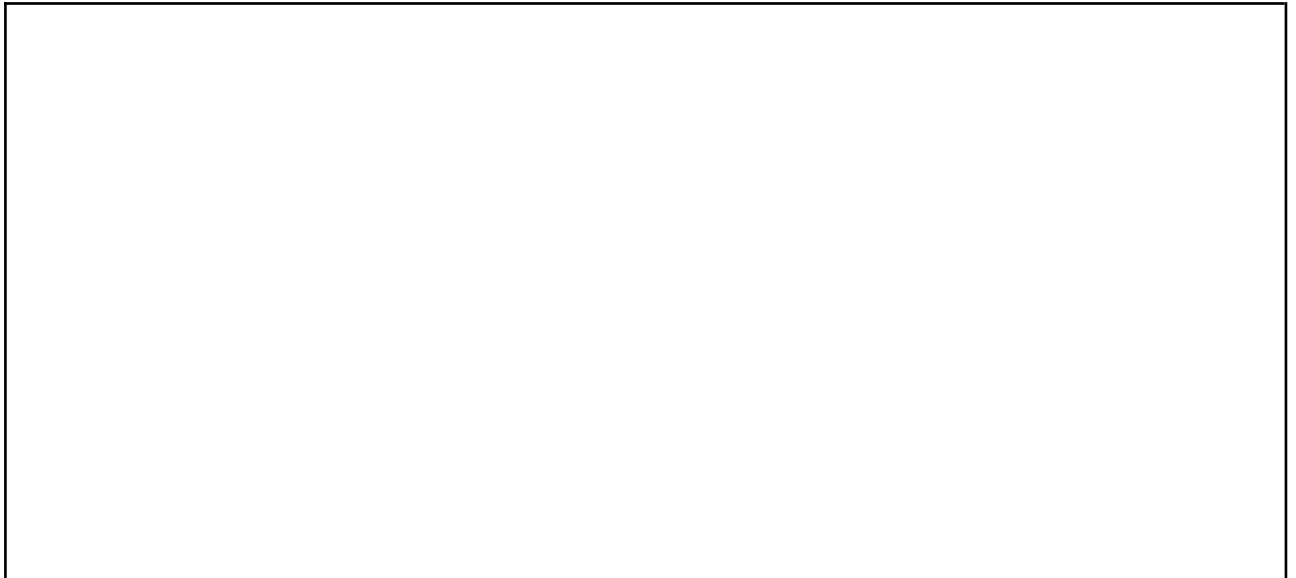


Q1. b) If you wanted to draw a graph to explain the number of sunspots visible on the Sun in Image 1 as time passes, what would the graph look like? **Sketch your graph** and label your axes.

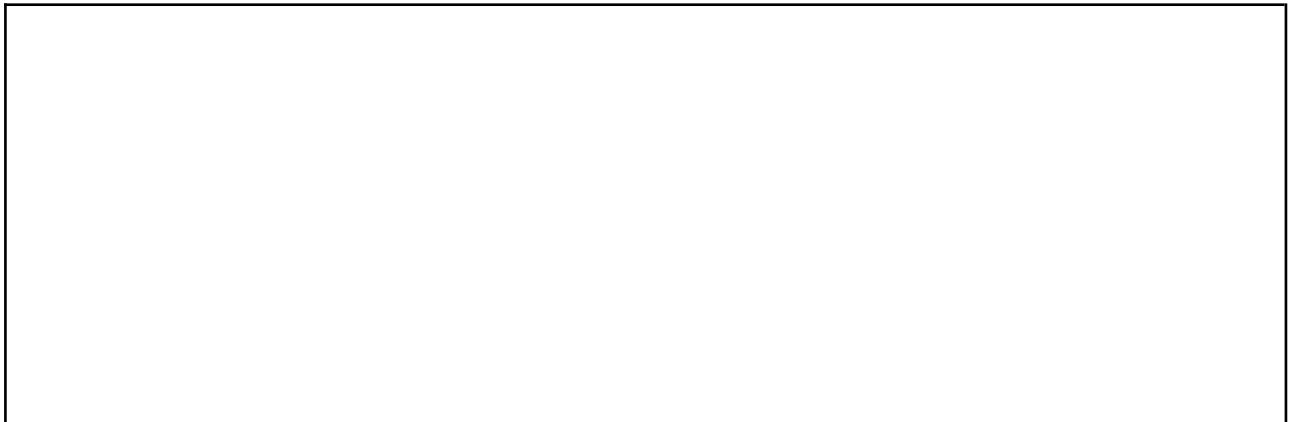


Q2. a) When your teacher has assigned a group number, open the matching [Excel file](#). The table in each Excel sheet gives the **daily average of visible sunspots for each year**. For example on average 12 sunspots were visible each day for the year 1996. **Plot this data** using Excel and **describe your observations** of the graph.

My observations:



Q2. b) How does the Excel graph **compare** to your sketched graph in Q1. b) ?



Q2. c) Examine your Excel graph and answer the following questions:

1. What year has the highest number of sunspots visible per day?
2. What year has the lowest number of sunspots visible per day?

3. How long does it take for the Sun to change from its highest number of sunspots visible per day to its lowest?
4. What year do you think it is most likely for scientists to detect solar eruptions from the sunspots?

Q2. d) Working in larger groups, combine each of your tables of data into one Excel sheet. **Plot this larger table** of data using Excel and **describe your observations** of the resulting graph.

My observations:

Q2. e) **Compare** your graph in Q2. a) to your graph in Q2. d). How does the pattern change when the full data set is used? What does this tell you about the climate of the Sun?

