

Names:

Grade	
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Solar Observations

Pre-Lab Quiz:

Record your answers as well as your reasonings and explanations.

1.

2.

3.

4.

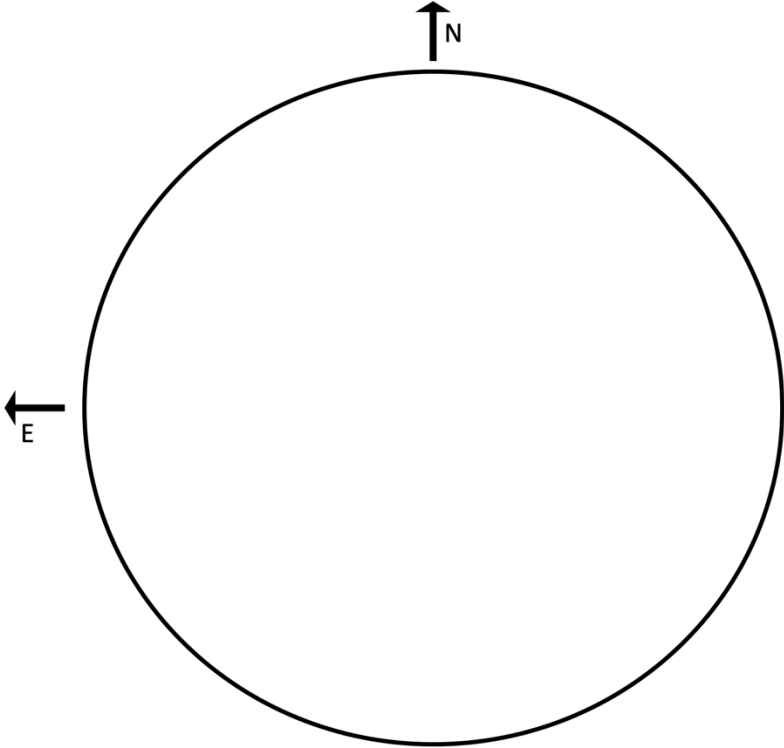
Part 1: Features of the Sun

1. What day and time is your group completing this lab? The Big Bear Solar Observatory (BBSO), Solar and Heliospheric Observatory (SoHO), and Solar Dynamics Observatory (SDO) collect images of the Sun in real time/near-real time, so this is important information to note. If you came back to observe the Sun again tomorrow, or next week, these images would look different.

2. Pick two types of images of the Sun to study from the following options: $H\alpha$ images (BBSO), white light images (sometimes available through BBSO), magnetic field pattern images (SDO, sometimes available through BBSO), ultraviolet light images (SoHO, SDO), and coronagraph images (SoHO). Write your two selections below, noting that if you chose ultraviolet light images as one of your image types you should pick a specific wavelength as part of your choice and write this below (for example, SoHo's 'EIT 195' or SDO's 'AIA 211 A').

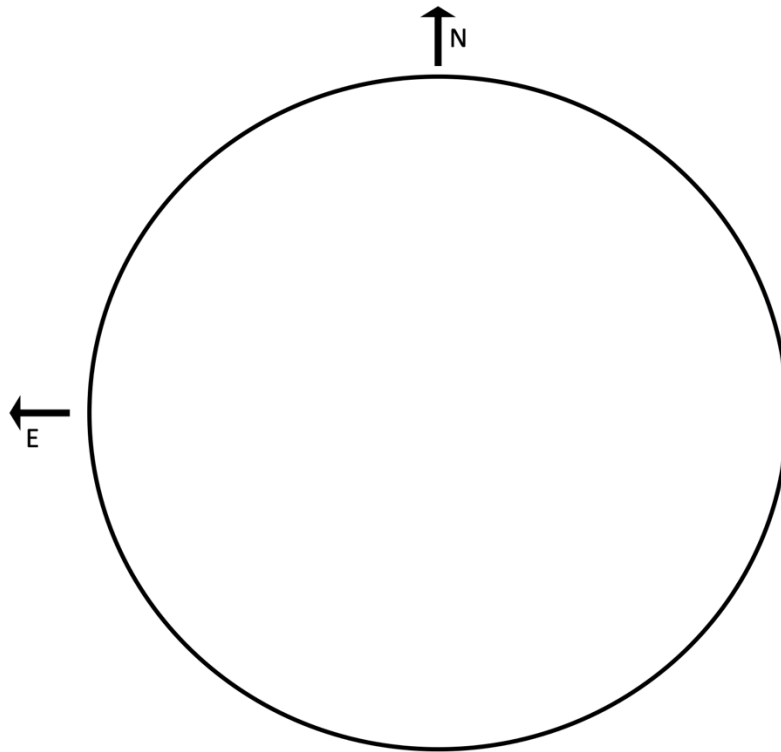
3. Describe the disk of the Sun as it appears in the first type of image your group chose, noting anything that strikes you as noteworthy or interesting. You should note which solar features you think you can see, and also specifically state what phenomena were not present in your images and why you think this is.

4. Draw the Sun as it appears in the first type of image you chose on the diagram below. Label features and record their locations as accurately as you can.



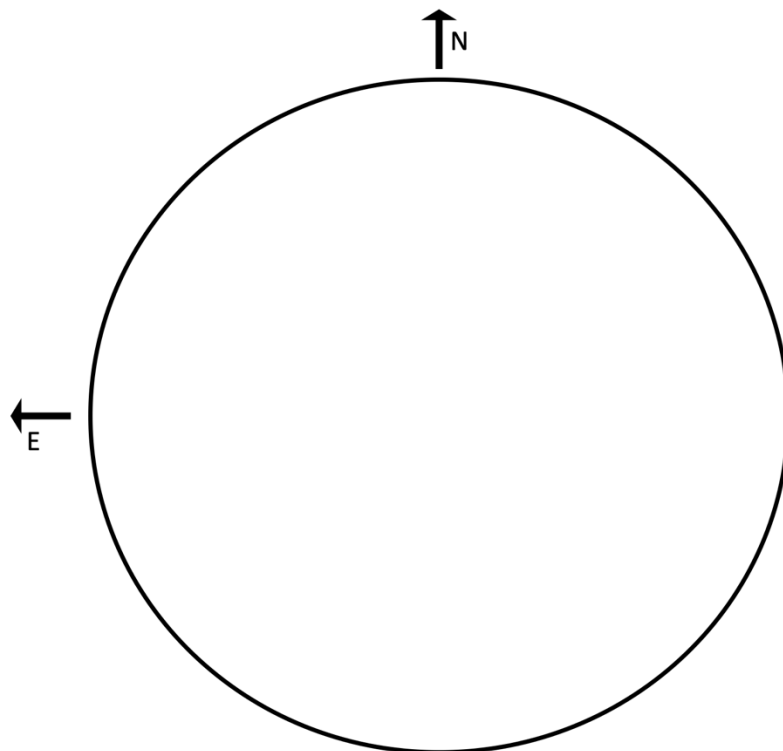
5. Describe the disk of the Sun as it appears in the second type of image your group chose, noting anything that strikes you as noteworthy or interesting. You should note which solar features you think you can see, and also specifically state what phenomena were not present in your images and why you think this is.

6. Draw the Sun as it appears in the second type of image you chose on the diagram below. Label features and record their locations as accurately as you can.



7. Compare and contrast what you saw when looking at the two types of images.

8. Draw the Sun as it appears through one of the Solar telescopes on the roof on the diagram below. Label features and record their locations as accurately as you can.



9. Compare and contrast what you saw when looking at the online images with what you saw through the Solar telescope.