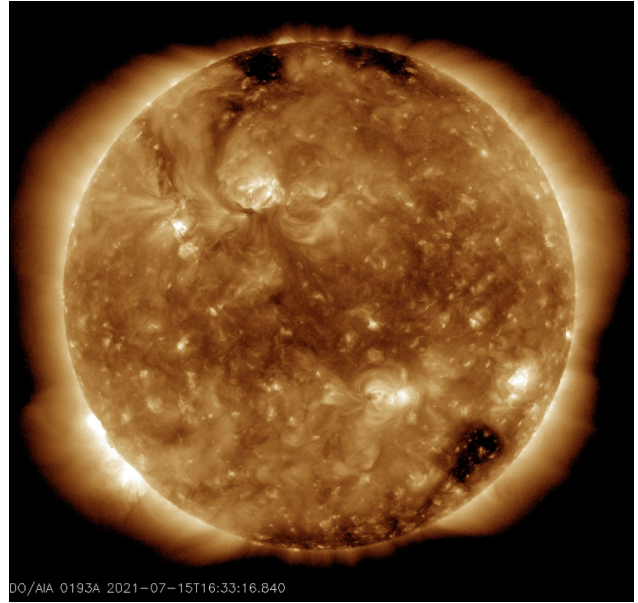


Q1. Compare the two images below. What features look the same or different?

The Earth ([Earth Satellite View \(with Weather\)](#))

The Sun ([Sun Satellite View](#))



The features I notice on Earth are....

The features I notice on the Sun are.....

Q2. In the early 20th century, an astrophysicist called Cecilia Payne-Gaposchkin studied the Sun to find out what elements were present. Imagine that you are a scientist assisting Cecilia Payne-Gaposchkin. She has asked you to investigate the **state of matter** that different elements would be if they were on the Sun.

Table A tells you the **highest and lowest temperatures** ever recorded on the Earth and the Sun.

Table B tells you the **temperature** at which each element either melts into a liquid or boils into a gas.

Using the data in tables A and B **determine the state of matter of the given elements on the Sun and complete Table C.**

Table A.

Location	Highest temperature (°C)	Lowest temperature (°C)
Earth	70.7°C	-89.2°C
Sun	5,000,000°C	6700°C

Table B.

Element	Melting Point (°C)	Boiling Point (°C)
Carbon	3527	4827
Oxygen	-218.4	-182.96
Helium	-272.20	-268.934
Bromine	-7.3	58.78
Iron	1535	2750
Neon	-248.67	-246.05
Hydrogen	-259.14	-252.87
Magnesium	648.8	1090

Calcium	839	1484
Mercury	-38.87	356.58

Table C.

Element	State of matter on Earth	State of matter on the Sun
Carbon	Solid	
Oxygen	Gas	
Helium		
Bromine	Liquid	
Iron		
Neon		
Hydrogen		
Magnesium	Solid	
Calcium	Solid	
Mercury		

Q3. Using your observations from Q1. and the information from Q2. describe what you think conditions are like on the Sun? Could humans live there? Explain your answer.