Our Closest Star – The Sun

Engage

1. What is located the middle of our Solar System?

2. What does it provide to the Earth?

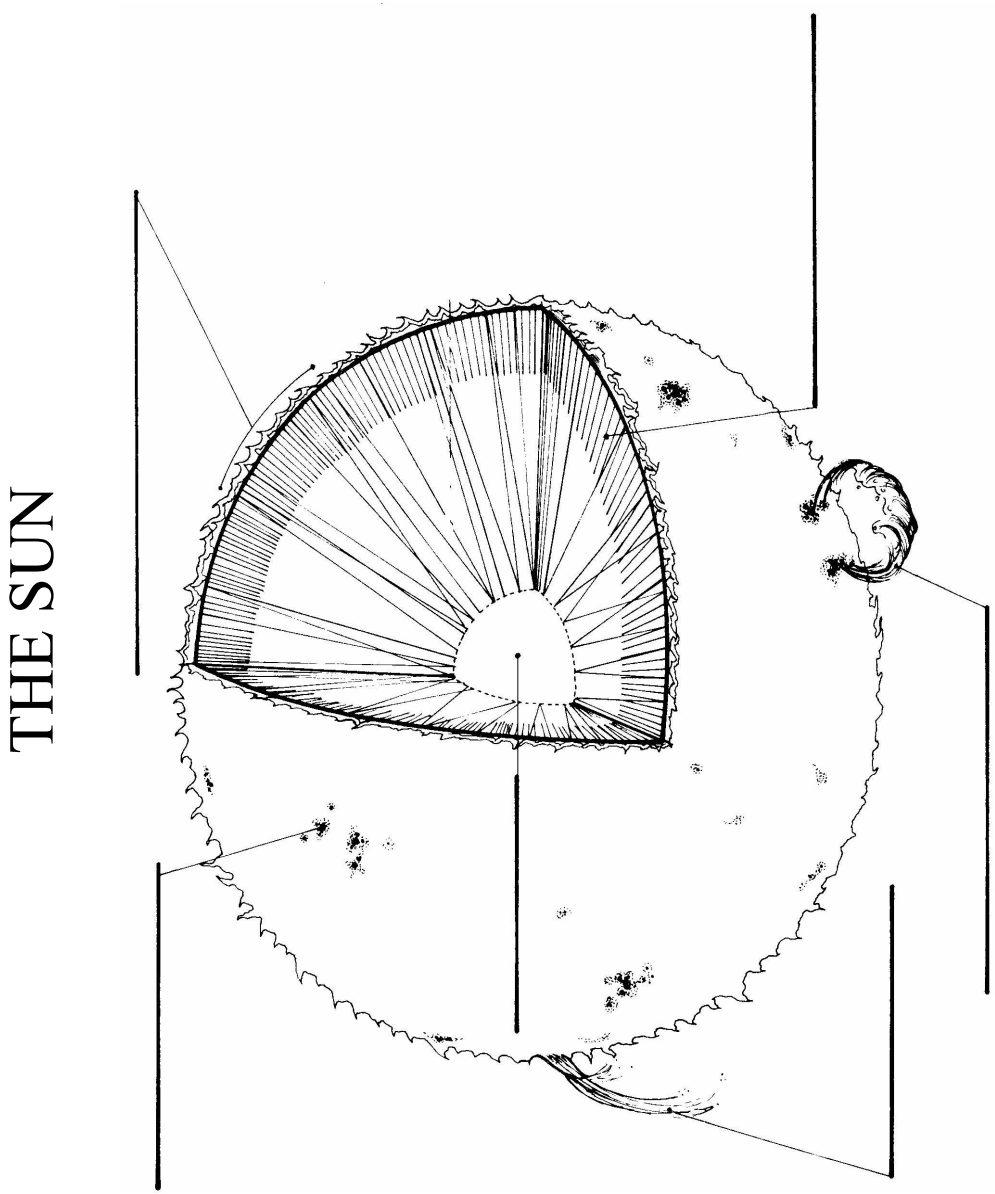
3. Do you think it spins on an axis, or does it stay still?

4. Watch video on Sunspots located at
https://www.youtube.com/shorts/KMaIPK6_cfQ

Look for evidence concerning whether or not the Sun spins on an axis.

5. What can you conclude about the rotation of the Sun on an axis?

Explore
Materials: colored pencils
What To Do:
Use the readings on the next page to color and label the physical properties of the Sun.



Explore page 2

1. The temperature inside the Sun's **core**, or center, reaches 15 million ºC. Color the core red.

2. The inner layer of the of the sun's atmosphere is called the **photosphere**. Color the photosphere orange.

3. The **chromosphere** is the outer layer of the sun's atmosphere. Color it yellow.

4. **Sunspots** look like small dark areas on the sun. They can be as large as the earth. Sunspots are cooler than the rest of the sun's atmosphere. Circle the sunspots in purple.

5. Sunspots usually occur in the pairs or groups. Reddish loops of gas called **prominences** link different parts of sunspot regions. Color the prominence red.

6. Sometimes the area around the sunspot releases a large amount of energy. These explosions are known as **solar flares**. Color the solar flare orange.

7. Label each line with the correct name.

8. Watch the video "What Are Solar Flares" located at https://www.youtube.com/watch?v=g9owdmL2UWQ

9. List one thing you learned from the video in the space below.

Explain

ALL ABOUT THE SUN

PHYSICAL PROPERTIES

LOCATION

MOVEMENT

Elaborate

Watch the Life Cycle of the Sun power point from
https://missdoctorbailer.com/7th-grade-lessons
and fill in the blanks below

Birth

Stars begin to form in stellar _____.

Adulthood

Our Sun is located in the _____ of the solar system.
It is a medium sized _____ star.
Its surface _____ is approximately 5500ºC.
It is made of mostly of _____ and _____.

Middle Age

After about 5 _____ years our Sun will slowly expand to a _____.
It will be so big it will burn up all the _____ – Mercury, Venus, Earth and Mars.

Old Age

After another 7 billion years the Red Giant will _____ into a _____ Nebula.

Death

Eventually the planetary nebula will _____ on itself and become a _____ _____.

Would our Sun ever become a Black Hole?

The Sun will not end in a black hole because it is not _____ enough.
It would need to be about _____ more massive to end its life as a black hole.

Evaluate

Name _____ period _____

EXIT TICKET

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1. Which of the following words does not belong in the system of the sun?

Sunspot	Chromosphere
Prominence	Brown Dwarf
Photosphere	Solar Flare

2. Where is our Sun located?

A. At the edge of the solar system.
B. At the center of the solar system.
C. Between Jupiter and Saturn.
D. At the edge of the Milky Way Galaxy

3. The Sun's movement is –

A. Rotating like the Earth
B. Sitting still
C. Rolling around the solar system
D. Moves closer or farther depending on night and day

4. Our Sun's temperature is –

A. Very cold
B, Slightly cold
C. Very hot
D. Sightly hot

5. What color is our Sun?

A. Yellow
B. Blue
C. White
D. Orange