

Suggestion: sketch the 4 stages of the Solar System's formation that we drew on the back of your notes.

1. In the earliest stages of our Solar System's formation, what was it called?

Solar Nebula

2. Describe our solar system during its earliest stages. Describe its...

a. Size Huge (bigger than today)

b. Temperature Cold

c. Motion Slowly turning (rotating)

d. Shape No particular shape

3. What types of materials were in the Solar system at that time?

Dust and Ice

4. Describe how the solar system first began to change.

a. What happened to its size? Shrank

b. Why? Gravity

5. a. What happened to its temperature? Increased

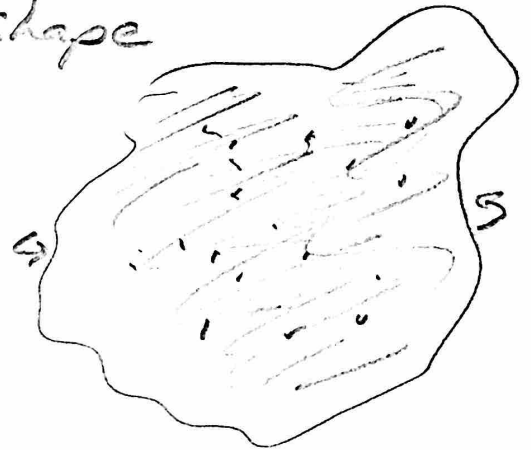
b. Why? Gravity squeezed it

6. a. What happened to its motion? speeds up

b. Why? Similar to figure skater pulling in arms.

7. a. What happened to its shape? Forms a disc

b. Why? Momentum stretches it out (at the equator)



8. a. What is the name of the process that produces the Sun's energy?

*Nuclear Fusion*

- b. Where did this process first begin?

*Center of the nebula*

- c. Why did it begin in that location?

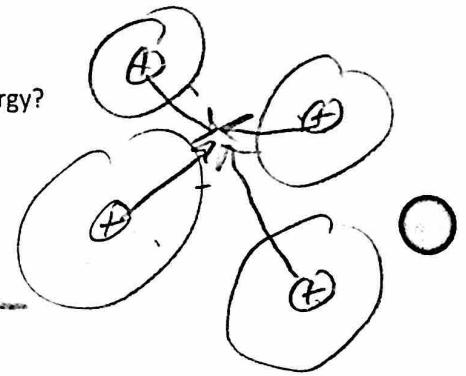
*The center had enough pressure to squeeze hydrogens together and make them fuse.*

- d. What is the "fuel" that is used in this process?

*Hydrogen*

- e. What substance does the "fuel" turn into during this process?

*Helium*



9. What caused the planets to form?

*gravity*

10. Why do only the outer planets have large amounts of gas?

*Sun melted, boiled, and blew away the ice ("frozen gas") near the Sun.*

11. What prevents the planets from flying away from the Sun?

*Gravity*

12. What prevents the planets from falling into the Sun?

*Momentum*

13. Approximately how old is our Solar System?

a. 460 years

b. 4,600 years

c. 4.6 million years

d. 4.6 billion years

e. 4.6 trillion years