

MOVIE–The life and death of stars

NAME _____ HR _____ 34

<https://www.youtube.com/watch?v=4xIQGbYur9Q&t=12s>

1. Stars live for millions or _____ of years.
2. The energy released by fusion counteracts _____ crushing inward.
3. How many Jupiters big do you have to be to become a small star?
4. Gravity causes the gas cloud to contract until _____ begins.
5. Fusion continues as long as there is _____ to fuel it.
6. When hydrogen runs out, the _____ then shrinks and gets hotter.
7. The outer layers are then _____ out away from the core.
8. The star is now a _____ giant.
9. The red giant can now fuse _____ .
10. It swells again until a last burst of energy ejects the outer _____ .
11. The tiny core is the size of _____ .
12. It contracts more and is called a _____ dwarf star.
13. The ejected shell is called a planetary _____ .
14. More _____ means more gravity.
15. Hotter temperatures means _____ fusion.
16. This star will be hot big bright and _____ .
17. High mass stars live only 10 to 100 _____ years.
18. As fuel runs out, the core _____ .
19. The core can fuse all the way up to the _____ iron.
20. The iron nuclei are stable and will _____ fuse.
21. Then in a single second, the star _____ onto itself and then _____ outward.
22. A _____ creates all the elements heavier than iron.
23. Supernovae are brighter than the entire _____ they belong to.
24. One teaspoon of a white dwarf weighs _____ tons.
25. The core of larger stars contract so much that _____ are squeezed into protons (making _____).
26. A teaspoon of a _____ star would weigh ten million tons.
27. If the core is above 3 solar masses, the neutrons will be crushed together into a _____ hole.
28. A black hole will not even let _____ escape.
29. All stars have a red _____ phase.
30. Low mass= _____ dwarf.
31. Intermediate mass= _____ star.
32. Especially high mass= black _____ .