



The Universe – Life and Death of a Star



Follow along with the video and answer the questions. The questions are in order of their appearance in the show.

| # | Question | Answer |
|----|--|--------|
| 1 | What are the pillars made of in the "Pillars of Creation?" | |
| 2 | What is the most important force in astronomy? | |
| 3 | What is the early phase of the star called once the gas and dust begin to coalesce? | |
| 4 | At what stage in star development does a star spend most of its life?...its 'happy' state... | |
| 5 | What characteristic indicates how hot a star is? | |
| 6 | Small, cool red stars are called | |
| 7 | Large, blue stars are how much larger than the sun? | |
| 8 | Which star lives the longest, the star with the higher mass or the star with the lower mass? | |
| 9 | What will happen to our star once all of the hydrogen has been fused? | |
| 10 | What is the phase of a star called where it simply cools and fades away? | |
| 11 | Why do most stars not necessarily die in the time we would normally expect them to? | |
| 12 | What is the result of the collapse of the iron core? | |
| 13 | From where did the elements in our bodies originate? | |
| 14 | About how big (or small) are neutron stars? | |
| 15 | What would happen to our sun if a dense white dwarf collided with it? | |
| 16 | To what does the show compare a globular cluster? | |
| 17 | What do they call the blue stars found in old globular clusters? | |
| 18 | Where does Joshua Barnes think they come from? | |
| 19 | At what stage of a star's life are black holes, white dwarfs, etc.? | |
| 20 | What is a brown dwarf? | |



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| # | Question | Answer |
|----|--|--|
| 1 | What are the pillars made of in the "Pillars of Creation?" | dust and hydrogen gas |
| 2 | What is the most important force in astronomy? | gravity |
| 3 | What is the early phase of the star called once the gas and dust begin to coalesce? | nebula |
| 4 | At what stage in star development does a star spend most of its life?...its 'happy' state... | main sequence |
| 5 | What characteristic indicates how hot a star is? | color |
| 6 | Small, cool red stars are called | red dwarfs |
| 7 | Large, blue stars are how much larger than the sun? | 20 times the Sun's mass |
| 8 | Which star lives the longest, the star with the higher mass or the star with the lower mass? | the star with the lower mass |
| 9 | What will happen to our star once all of the hydrogen has been fused? | eventually nuclear fusion stops, it dies |
| 10 | What is the phase of a star called where it simply cools and fades away? | white dwarf |
| 11 | Why do most stars not necessarily die in the time we would normally expect them to? | they begin to fuse into heavier elements |
| 12 | What is the result of the collapse of the iron core? | it explodes and blows the star apart |
| 13 | From where did the elements in our bodies originate? | the explosions of stars |
| 14 | About how big (or small) are neutron stars? | 10 miles across |
| 15 | What would happen to our sun if a dense white dwarf collided with it? | Sun would distort (egg shape) and it would explode the Sun...in about 1 hour |
| 16 | To what does the show compare a globular cluster? | a demolition derby |
| 17 | What do they call the blue stars found in old globular clusters? | blue stragglers |
| 18 | Where does Joshua Barnes think they come from? | collisions with older, dimmer main sequence stars |
| 19 | At what stage of a star's life are black holes, white dwarfs, etc.? | end stages |
| 20 | What is a brown dwarf? | a failed star |