

UPGRADE to the Bundle

Crash Course - ASTRONOMY

47 Episode Series Bundle

- ✓ Classroom Ready - Just Print and Go!
- ✓ Active Engagement - Keep Students' Attention
- ✓ Direct Video Link Included

WATCH VIDEO



ALL 12 Episodes with Answer
Keys and Direct Video Link

CLICK HERE



Crash Course Astronomy #32: Neutron Stars

Name: _____ Date: _____

You can access the video here → <https://youtu.be/RdMvUL8HFMsi-B9LzEF1499ERzIG>

1. When a star between 8 and 20 times the Sun's mass dies, it ends in a massive explosion called a _____.
2. After a supernova, a dense core of neutrons is left behind, forming a _____.
3. The pressure that stops collapse in smaller stars is called _____ degeneracy pressure.
4. If the core exceeds about 1.4 solar masses, even electron degeneracy pressure cannot stop the _____.
5. Protons and electrons are squeezed together under pressure to form _____.
6. The resistance of neutrons to being packed too tightly is called _____ degeneracy.
7. The material of a neutron star is often referred to as _____ due to its extreme density.
8. A neutron star's gravity is about _____ times stronger than Earth's gravity.
9. When neutron stars spin very rapidly due to accreting matter, they can become _____ pulsars.
10. A neutron star that emits beams of radiation as it spins is called a _____.
11. The magnetic field of a neutron star can be _____ times stronger than the Sun's.
12. The crust of a neutron star is extremely dense and can crack, creating a _____.
13. A neutron star with an extraordinarily strong magnetic field is called a _____.
14. A magnetar flare can release as much energy in a second as the Sun emits in _____ years.
15. The 2004 flare from magnetar SGR-1806-20 was strong enough to compress Earth's _____ field.

Crash Course Astronomy #32: Neutron Stars KEY

1. When a star between 8 and 20 times the Sun's mass dies, it ends in a massive explosion called a **supernova**.
2. After a supernova, a dense core of neutrons is left behind, forming a **neutron star**.
3. The pressure that stops collapse in smaller stars is called **electron** degeneracy pressure.
4. If the core exceeds about 1.4 solar masses, even electron degeneracy pressure cannot stop the **collapse**.
5. Protons and electrons are squeezed together under pressure to form **neutrons**.
6. The resistance of neutrons to being packed too tightly is called **neutron** degeneracy.
7. The material of a neutron star is often referred to as **neutronium** due to its extreme density.
8. A neutron star's gravity is about **100 billion** times stronger than Earth's gravity.
9. When neutron stars spin very rapidly due to accreting matter, they can become **millisecond** pulsars.
10. A neutron star that emits beams of radiation as it spins is called a **pulsar**.
11. The magnetic field of a neutron star can be **trillions** times stronger than the Sun's.
12. The crust of a neutron star is extremely dense and can crack, creating a **starquake**.
13. A neutron star with an extraordinarily strong magnetic field is called a **magnetar**.
14. A magnetar flare can release as much energy in a second as the Sun emits in a **quarter of a million** years.
15. The 2004 flare from magnetar SGR-1806-20 was strong enough to compress Earth's **magnetic** field.

15 Questions

Answer Key Included

Save 85% per worksheet!