

Black Holes: The Ultimate Abyss from discovery channel

MEDIA

- [Black Holes: The Ultimate Abyss \(Full Video\)](#)
- 1. To detect black holes, astronomers look for _____.
 - A) ultraviolet radiation they emit
 - B) objects falling out of space-time
 - C) nuclear reactions at their centers
 - D) stars circling massive compact objects
- 2. Astronomers theorize that when our sun runs out of nuclear fuel, it will become a _____.
 - A) black hole
 - B) neutron star
 - C) white dwarf
 - D) frozen planet
- 3. According to Einstein's theory of gravity, why does the earth revolve around the sun?
 - A) The earth travels along a curvature of space-time.
 - B) The earth is pulled by the sun's enormous mass.
 - C) The earth is pulled through space by a magnetic field.
 - D) The earth is moved by the heat of the sun's nuclear reactions.
- 4. The place deep within a black hole, where everything is destroyed, is called the _____.
 - A) space trap
 - B) singularity
 - C) event horizon
 - D) gravitational ghost
- 5. When a star emits X-rays while circling an invisible compact object, astronomers can calculate the mass of the compact object by measuring the _____.
 - A) speed of the star
 - B) density of the star
 - C) intensity of X-rays emitted
 - D) frequency of X-rays emitted
- 6. Theory suggests that if you could get close to the center of a stellar-mass black hole, you may be converted into something like a _____.
 - A) cube of ice
 - B) ball of wax
 - C) doughnut ring
 - D) string of spaghetti
- 7. To zoom from one galaxy to another faster than the speed of light, some astrophysicists have proposed that we need to _____.
 - A) squeeze the time dimension of space-time
 - B) make worm holes that connect black holes
 - C) build a spaceship that can travel faster than light
 - D) find the entry and exit points of parallel universes
- 8. Astronomers suspect that the strongest radio signals from the hearts of distant galaxies are coming from _____ black holes releasing jets of energized particles.
 - A) micro
 - B) mini
 - C) stellar-mass
 - D) supermassive