

Black Holes

A black hole is a region in space where gravity is so strong that not even light can escape. Black holes form when massive stars collapse under their own gravity at the end of their life cycles.

The boundary surrounding a black hole is called the event horizon. Once an object crosses it, escape becomes impossible. At the center lies the singularity, a point of extreme density where current physics breaks down.

Black holes play a crucial role in galaxy formation and evolution, and their effects can be observed through gravitational waves, x-ray emissions, and the motion of nearby stars.