

Black Hole Comprehension

Reading Passage: A black hole is a region in space where gravity is so strong that nothing, not even light, can escape from it. Black holes form when very massive stars run out of fuel and collapse under their own gravity. The outer layers are blown away, and the core shrinks into an incredibly dense point called a singularity. Surrounding this point is the event horizon-the boundary beyond which nothing can return.



Black holes are invisible because light cannot escape them, but scientists can detect them by observing how they affect nearby stars and gas. Some black holes pull matter into a spinning disk around them, called an accretion disk. This matter heats up and glows brightly, giving scientists clues about the presence of a black hole.

There are different types of black holes, including stellar black holes, supermassive black holes, and intermediate ones. The largest, supermassive black holes, are found at the centers of most galaxies-including our own Milky Way.

Questions:

1. **What causes a black hole to form?**
2. **What is the singularity?**
3. **Why are black holes invisible?**
4. **How can scientists detect black holes if they can't see them directly?**
5. **What is an accretion disk?**
6. **Where are supermassive black holes usually found?**
7. **List the three types of black holes mentioned.**