Black hole

Published On: 05-10-2022

Why is in news? Study tracks new source for radio emissions from black hole core

Though many previous studies have linked multiple sources for the emissions, this new study has found energy from the accretion disk to be powering the radio signals rather than the rotational energy from the spin of the black holes, as previously believed.

Black holes are **extremely dense points in space** that **create deep gravity sinks** from **which even light cannot escape**.

It can be formed by a **death of a massive star**. A black hole takes up zero space but does have mass, that used to be a star. And black holes get more massive as they consume matter near them.

The bigger they are, the larger a zone of “no return” they have, where **anything entering their territory is irrevocably lost to the black hole**. This **point of no return** is called the **event horizon**.

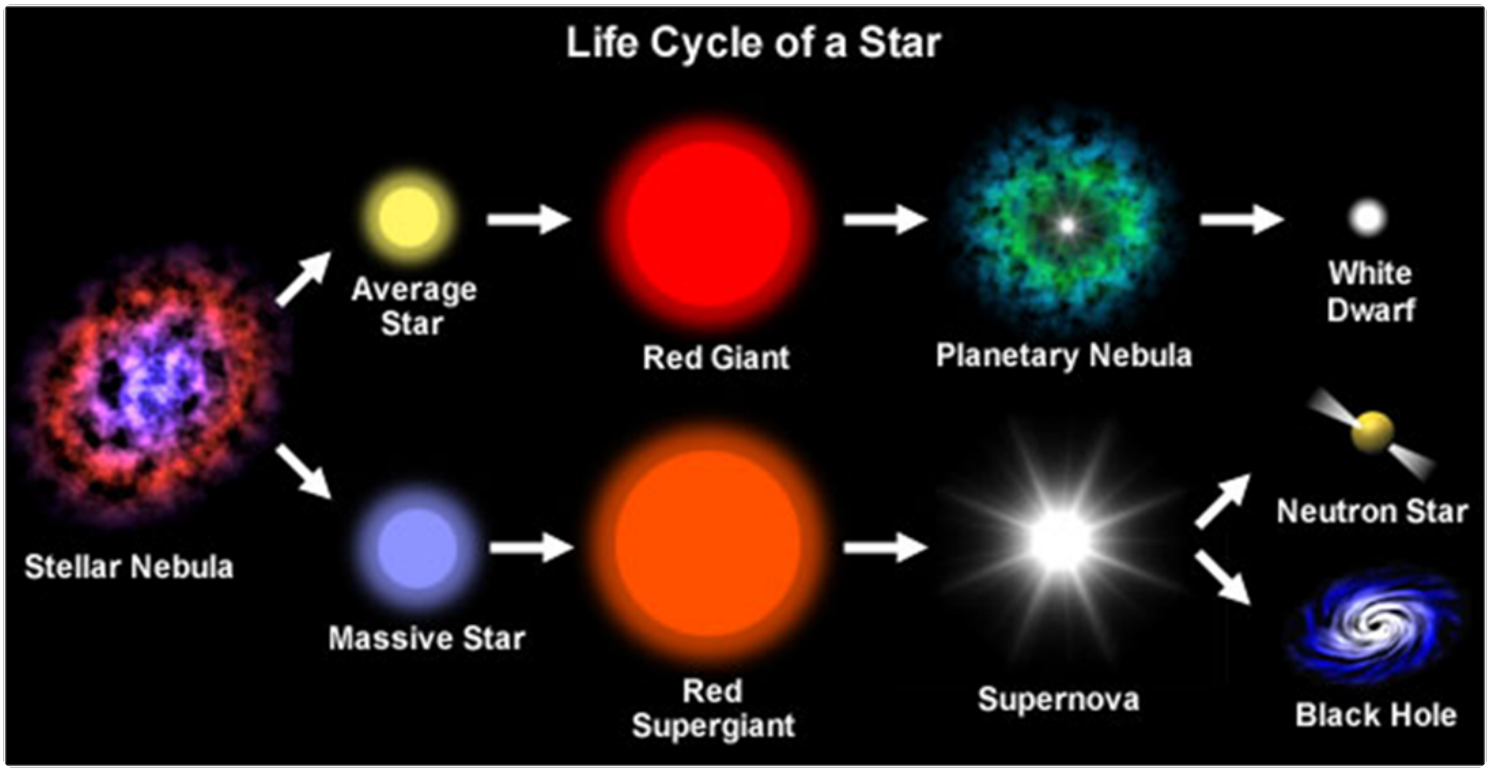
When a massive star (more than 8 times bigger than Sun) runs out of its **thermonuclear fuel** in its core- signifies the end of its life and the core becomes unstable. Then its gravity caused the core to collapse upon itself.

This huge weight of its constituent matter falling in compresses the dying star to a point of zero volume and infinite density- called the **singularity**.

The black holes belong to two categories: One ranges **between a few solar masses and tens of solar masses**. These are thought to form when massive stars die.

The other **is supermassive black holes**. These range from hundreds of thousands to billions of times that of the sun from the Solar system to which Earth belongs.

A black hole cannot be observed but **only detected by the effects of its enormous gravitational fields** on nearby matter.



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