## The Truth About Black Holes by Misha Pustovit



Image of a black hole

The science fiction description of a black hole: totally not true. If you think that a black hole is a powerful super-dangerous cosmic vacuum cleaner, then you don't know the truth about black holes.



Black hole ejecting plume of gas

## What is a black hole?

The question you are probably asking right now: so what *is* a black hole? Let's go on a journey into space to find out!

The first type of black hole you would probably see is a stellar black hole. This is the most common type of black hole. They form from stars that are at least 20 times the mass of the sun. When a star runs out of gas to burn, it explodes, but the still intact core collapses under its own gravity to form a stellar black hole.

As you come closer to the center of the galaxy, you start seeing stars orbiting very fast around an invisible object. But that object is not *really* invisible-it's a supermassive black hole, formed when many stellar black holes collide. According to NASA, there is a supermassive black hole at the center of most galaxies, including

ours. But don't worry; it's 4 million light years away.

## Not a super-sucker

A black hole doesn't just suck up everything around it. In fact, you have to get very close to one to be sucked up.

For example, pretend you weigh 100 pounds. If Earth became a black hole, (impossible!) you would still weigh 100 pounds because the Earth's mass didn't change and your distance from its center of gravity didn't change.

If the sun became a black hole, the earth would continue on its normal orbit for the same reason.

So don't get fooled by science fiction-remember the truth about black holes!!!