

BLACK HOLE

WORKSHEETS

The "event horizon" is which nothing (not even light) can escape once it crosses the event horizon.

STRUCTURE OF BLACK HOLES

Would Earth be sucked by a black hole if its mass increased?

THE COLOR "BLACK" HOLE

A black hole can not be seen because strong gravity pulls all of the light into the middle of the black hole. But scientists can see how the strong gravity affects the stars and gas around the black hole. Scientists can study stars to find out if they are flying around, or orbiting, a black hole.

When a black hole and a star are close together, high-energy light is made. This kind of light can not be seen with human eyes. Scientists use satellites and telescopes in space to see the high-energy light.

THE NEAREST BLACK HOLE

An extremely measurement of V4641 Sagittarii led to a slew of new reports a few years back saying that the nearest black hole to Earth is astoundingly close, just 1,000 light-years away, but close enough to be considered dangerous, but way closer than thought. Further research, however, shows that the black hole is likely further away than that. Looking at the rotation of its companion star, among other factors, yielded a 2014 result of more than 20,000 light years.

LIGHT YEARS AWAY

Space distance is measured by lightyears. How far are we from neighboring star and galaxies?

The farthest solar system body, the Pluto is more than 5 billion kilometers away from the earth. It took the spacecraft New Horizons almost ten years to reach the edge of solar system. The distance is not even a light year.

One lightyear is equal to _____ miles or _____ kilometers. If a human has to travel one light year, he needs _____ years to reach from one point to another. If you travel now, will you still be alive after a light year journey?

Black Hole?

What is a black hole? A black hole is a region of space where the gravitational pull is so strong that nothing can escape from it. Even light cannot escape from a black hole.

Can Earth be pulled by a black hole?

Is the Sun a black hole? No, the Sun is not a black hole. The Sun is a star, and stars do not have enough mass to become black holes.

Will Earth be pulled by a black hole if its mass increased?

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