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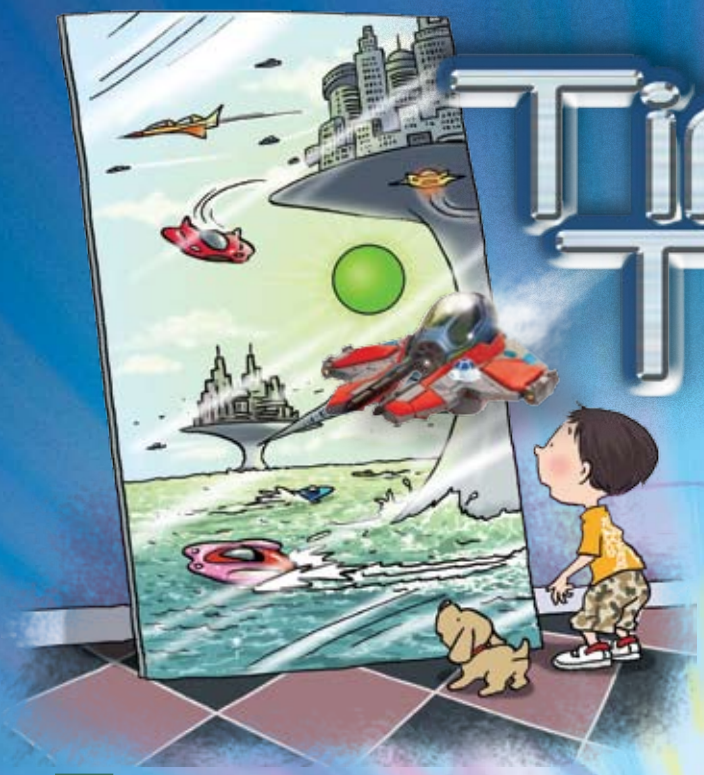
Time Travel



Is time travel possible? Of course! We travel forward in time every year, don't we? Well, silly jokes aside, some scientists think that time travel IS possible, but a set of criteria must be met before we can move back and forth in time.

Who Needs a Time Machine?

Most people think that you need a time machine to travel in time. But scientists say that it's a myth and all you actually need, is to locate a wormhole.

Wormhole

A wormhole is a "tunnel through time" that scientists think may exist in the space-time continuum. The space-time continuum, simply put, is a scientific model of space and time combined. Space and time used to be thought of as two separate aspects of the natural world. It was only after Einstein's ground-breaking work in the theory of general relativity that space and time were shown to be interrelated.

Of Apples and Worms

According to Einstein's famous theory, the space-time continuum is curved. If the universe is an apple, and the space-time continuum is the surface of the apple, then matter is like a worm moving along the surface of the apple.

This means that, hypothetically, when the worm is at the top of the apple and wants to move to the bottom of the apple, the shortest way to get there would be through the apple core. Makes sense doesn't it? Scientists think that such shortcuts, known as wormholes, exist in the space-time continuum and would enable us to travel to another time.

No Wormholes? Try a Black Hole!

If you can't find a wormhole, then a black hole will do! A black hole is formed when a large star, more than ten times the mass of the Sun, collapses inwards after burning up all of its fuel. As it collapses, its incredible mass creates a mammoth gravitational field that sucks everything inwards.

Not even light can escape from a black hole. Black holes can't be seen because it sucks in light. Although it is "invisible", there is plenty of astronomical evidence that prove that black holes exist.

Grandfather Paradox

Despite numerous theories about time travel, critics say that time travel is impossible because of what is known as the Grandfather Paradox. The Grandfather Paradox states that time travel is impossible because if a time traveller can travel back in time to kill his own grandfather, then the time traveller would cease to exist, making that journey back to the past impossible.

This puzzling dilemma has caused some scientists to theorise the existence of parallel universes where several "clones" of the same grandfather and time traveller exist in different universes, and killing one grandfather "clone" merely prevents the conception of one time traveller "clone"!

Predestination Paradox

Not confused yet? Then check out the Predestination Paradox, which is the opposite of the Grandfather Paradox. The Predestination Paradox states that whatever happens is meant to happen and there's nothing you can do to stop it. For example, if you attempt to travel back in time to prevent an arsonist from setting fire to your house, you may somehow cause the fire to happen in other ways, e.g. by accidentally knocking over a candle (oops) because the house is predestined to burn down!

If all these theories sounds incredibly complicated and "far out", well that's because they are – time travel is incredibly complex. If it were made possible, it would be the greatest breakthrough achieved by Man. Until that day, you'll have to depend on science fiction to indulge your time travel fantasies. May the Force be with you and see you in the Future!