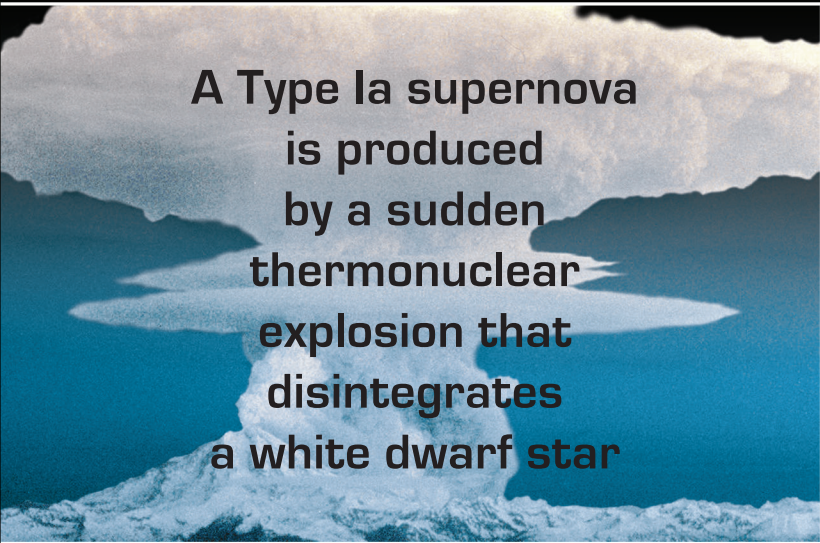


SUPERNOVA

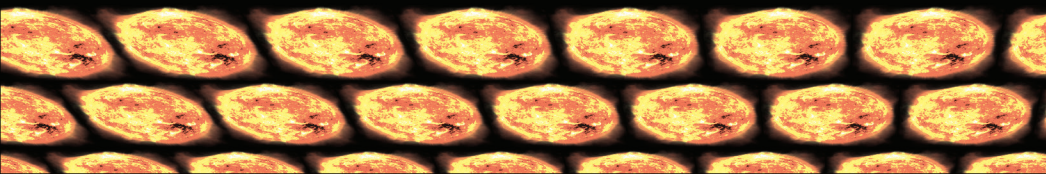
Every 50 years or so, a massive star in our galaxy blows itself apart in a supernova explosion

A Type Ia supernova is produced by a sudden thermonuclear explosion that disintegrates a white dwarf star

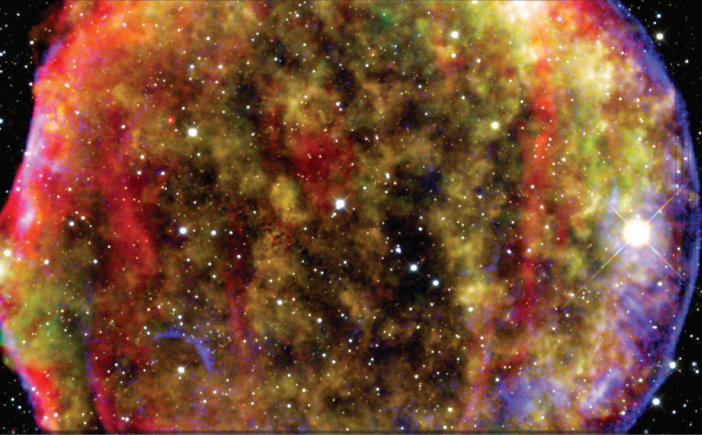
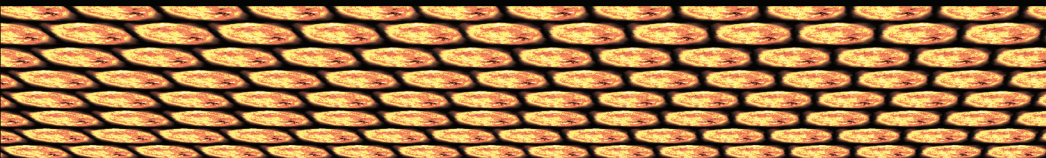
A photograph of a Type Ia supernova explosion, showing a bright, irregular white cloud of gas and dust against a dark blue background.

Supernovas are one of the most violent events in the Universe, and the force of the explosion generates a blinding flash of radiation, as well as shock waves analogous to

SONIC BOOMS

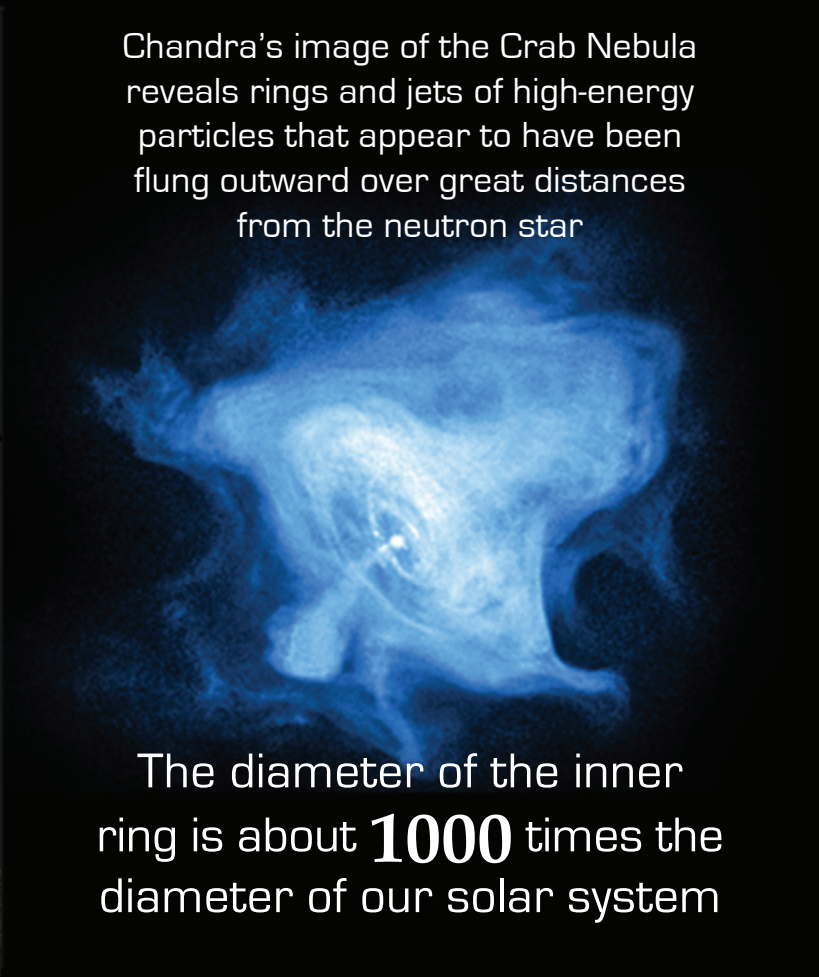
An illustration of a fighter jet flying through a blue sky, leaving a white shock wave behind it, representing the concept of a sonic boom.

Core-collapsing supernovas produce a brilliant visual outburst that can be as intense as the light of several billion Suns

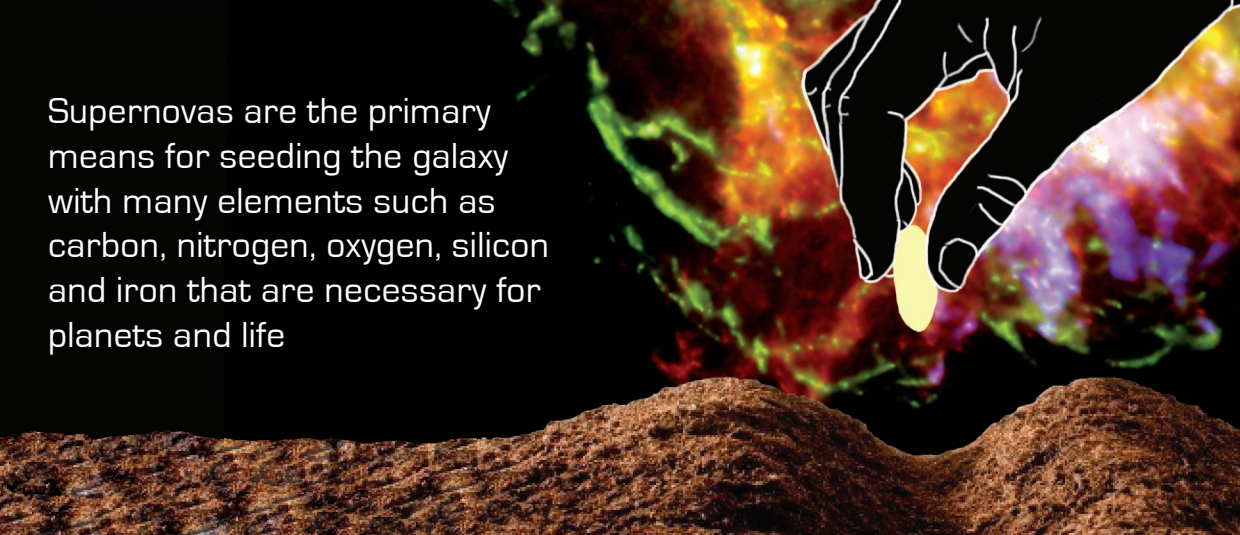


Tycho's supernova, observed in 1572, was so bright that it was visible during the day

Chandra's image of the Crab Nebula reveals rings and jets of high-energy particles that appear to have been flung outward over great distances from the neutron star

A blue, wispy, and irregular shape representing the Crab Nebula, showing the complex structure of the remnant.

Supernovas are the primary means for seeding the galaxy with many elements such as carbon, nitrogen, oxygen, silicon and iron that are necessary for planets and life

An illustration showing a hand holding a glowing yellow object, representing the seeding of the galaxy with elements from a supernova.

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