PI IN THE SKY

SAMPLE SCIENCE
NASA's GPM-DOCS mission was designed to test how hydrological processes work in space using the GPM satellite. The mission has collected samples from an asteroid, the first helicopter on Mars, and now wants to talk to distant spacecraft, and study the force behind Earth's seasons. NASA solves these real problems to explore space and Earth — and can you?
EXPLORE MORE: gpm.nasa.gov/edu

WHIRLING WONDER
Joining the Perseverance rover on Mars is a small, robotic helicopter designed to explore the planet's surface. The helicopter, called Ingenuity, is a significant milestone in the evolution of space technology and is designed to demonstrate the possibilities of human ingenuity.

Despite Mars having less gravity than Earth, the atmosphere on the red planet is much thinner than Earth's, making it more of a challenge to land. This is where the Ingenuity helicopter comes in. It's a testament to human ingenuity and the possibilities of space exploration.

How high can it fly? The helicopter can fly at a maximum altitude of approximately 30 meters on a single power cycle.

LEARN MORE: mars.nasa.gov/ingenuity

FORCE FIELD
Every day, Earth is exposed to radiation from the Sun. The Sun's plus-sized charged particles can hit the Earth and interact with its magnetic field. These charged particles can cause problems for astronauts and electronic systems on Earth. The Earth's magnetic field protects us from this radiation, making it a vital natural shield.

If Earth's magnetic field were to be destroyed, it could lead to significant problems for electronic systems and even have effects on Earth's weather patterns. The continued operation of this natural defense system is crucial for protecting life on Earth.

LEARN MORE: space.gov/earth-moon-sun/earth-magnetism