Osiris Rex

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In news: NASA's OSIRIS-REx began its journey back from asteroid Bennu.

More information on spacecraft-

- The **Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS-REx)** started its two-year long journey back to Earth.
- It is **NASA's first mission to visit a near-Earth asteroid**, survey its surface and collect a sample from it.
- In October 2020, the spacecraft briefly touched asteroid Bennu, from where it collected samples of dust and pebbles.
- Bennu is considered to be an ancient asteroid that has not gone through a lot of composition-altering change through billions of years.
- This means that below its surface lie chemicals and rocks from the birth of the solar system.

- It is as tall as the Empire State Building, located about 200 million miles away from the Earth.
- It is **named after an Egyptian deity.**
- It is a **B-type asteroid,** implying that it contains significant amounts of carbon and various other minerals.
- Because of its high carbon content, the asteroid reflects about four per cent of the light that hits it.
- Around **20-40 percent of Bennu's interior is empty space** and scientists believe that it was formed in the first 10 million years of the solar system's creation, implying that it is roughly 4.5 billion years old.
- The **surface of the asteroid is covered in massive boulders**.

- There is a slight possibility that Bennu might strike the Earth in the next century, between the years 2175 and 2199.
- NASA will also distribute a part of the samples to laboratories worldwide and will reserve about 75 per cent of the samples for future generations.