SPACE awareness

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Hot Stuff: Mission to Mercury Blasts Off

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In October, a new spacecraft called BepiColombo blasted off to begin a long, looping 7-year journey to Mercury!

Mercury is the smallest planet in our Solar System and the closest to the Sun. As one of the brightest objects in the night sky, people have known about Mercury for thousands of years, yet it remains one of the most mysterious worlds in our Solar System.

Mercury lies so close to the Sun that it's a dangerous place to visit. Anything travelling close to the planet will face temperatures reaching over 450°C. Only two spacecraft have braved the journey before, but BepiColombo is up for the challenge!

Bepicolombo is made up of two probes and the engine that will carry them on the long journey across the Solar System.

To survive the scorching heat around Mercury, one of the probes will perform a "barbecue roll", spinning 15 times a minute to even out the heat. The other has been wrapped in a sophisticated blanket that will protect it from the Sun's rays.

Between them, the two probes will carry twice as many scientific instruments as previous missions. They'll also get closer to the planet for longer, giving us a clearer view than ever before.

Among the puzzles BepiColombo will attempt to solve is Mercury's giant core. The metal core at the centre of our planet makes up just 17% of the planet's volume. But Mercury's core takes up 60% of its volume!

No-one quite knows why this is, but one theory says that Mercury began life much further from the Sun than it is today. As the young planet made its way closer to the Sun, it was hit by another large object.

The violent collision threw tons of rock from the planet into space, leaving the planet far smaller than before. However, the core buried deep beneath miles of rock would have remained safe.

COOL FACT!

BepiColombo might seem like a strange name at first glance. The spacecraft is actually named after a scientist from Italy called Giuseppe "Bepi" Colombo. Bepi worked on one of the earlier missions to Mercury, Mariner 10.