

Ariane 5



BepiColombo will launch from Europe's spaceport in Kourou, French Guiana, in South America

Sunshield and Interface Structure



The Mercury Magnetospheric Orbiter's sunshield will be jettisoned once arriving at Mercury

Venus



BepiColombo will use the gravity of the planets during flybys to help set course with Mercury

Earth



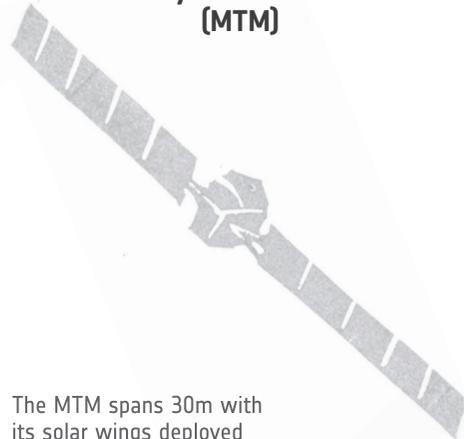
BepiColombo will make one flyby of Earth on its way to Mercury

Mercury Magnetospheric Orbiter (MMO)



MMO will spin 15 times a minute once it is orbiting Mercury to help distribute the Sun's heat

Mercury Transfer Module (MTM)



The MTM spans 30m with its solar wings deployed

Mercury Planetary Orbiter (MPO)



The MPO has a large 3.7m wide radiator to carry away heat generated by the spacecraft, as well as heat coming from the Sun and Mercury

Mercury



BepiColombo is Europe's first mission to Mercury, the smallest and least explored planet in the inner Solar System

Sun

Operating at a planet close to the Sun is hot work: the spacecraft will experience temperatures of more than 350°C – similar to a pizza oven!

BepiColombo spacecraft



Stacked one on top of the other for launch, the composite spacecraft is about 6 m high

How to play

Print and carefully cut out the individual cards. Use the extra template to create a box to keep your cards safe.

Play the game by mixing up the cards and laying them face down on a flat surface. Turn over any two cards. If they match, keep them and have another go, otherwise turn them both back over and it is the next player's go. (Hint: try to remember which cards your opponent turns over!) The game is over when all cards have been paired. The player with the most pairs wins. You can also play alone – keep going until you've matched all the cards.

Note: there is a different mission fact on each card – match the images only for a complete pair.

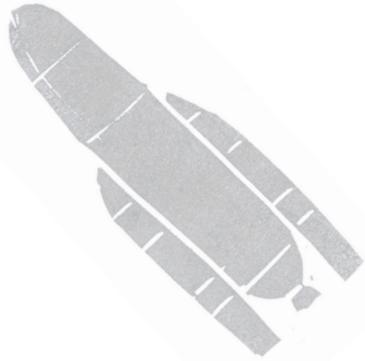
Connect with BepiColombo

Find out more about BepiColombo's mission to Mercury:



esa.int/bepicolombo

Ariane 5



BepiColombo will launch on an Ariane 5

Sunshield and Interface Structure



The sunshield gives thermal protection to the Mercury Magnetospheric Orbiter during the cruise to Mercury

Venus



BepiColombo will make two flybys of Venus on its way to Mercury

Earth



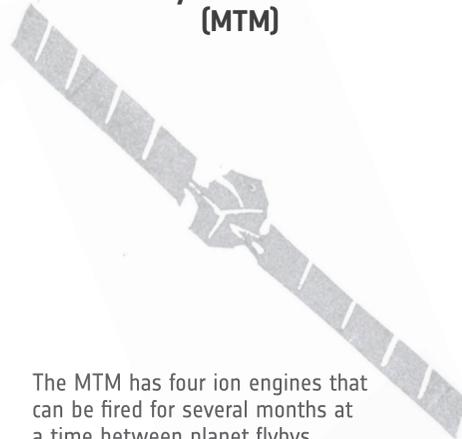
Ground stations on Earth allow mission teams to send commands to the spacecraft and receive data back

Mercury Magnetospheric Orbiter (MMO)



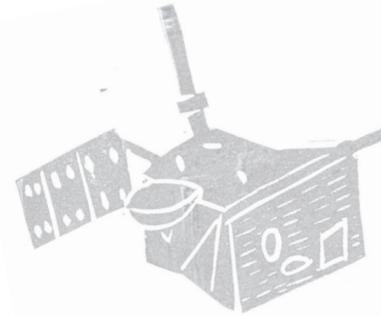
JAXA's MMO has five science experiments to investigate Mercury's environment

Mercury Transfer Module (MTM)



The MTM has four ion engines that can be fired for several months at a time between planet flybys

Mercury Planetary Orbiter (MPO)



ESA's MPO has 11 science experiments to investigate Mercury's interior, surface, magnetic field and environment

Mercury

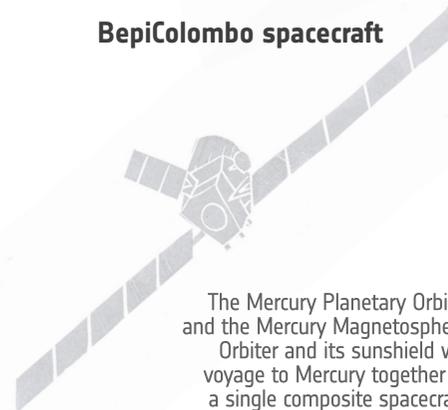


BepiColombo will make six flybys of Mercury before entering into orbit around the planet

Sun

Thanks to the Sun's enormous gravity, more energy is needed to place a spacecraft in orbit around Mercury than sending a mission to Pluto

BepiColombo spacecraft



The Mercury Planetary Orbiter and the Mercury Magnetospheric Orbiter and its sunshield will voyage to Mercury together as a single composite spacecraft, with the Mercury Transfer Module providing propulsion



Let us know what you think about this game!

- @BepiColombo
- /EuropeanSpaceAgency
- @europeanspaceagency



Please recycle once you have finished with this game

All graphics in this game are artist impressions. Credit: ESA

→ BepiColombo memory game

Play the BepiColombo memory game and get to know more about this exciting mission's journey to Mercury.

BepiColombo is Europe's first mission to Mercury, the smallest and least explored terrestrial planet in the inner Solar System. It is a joint endeavour between ESA and the Japan Aerospace Exploration Agency, JAXA, and consists of two scientific orbiters: ESA's Mercury Planetary Orbiter (MPO) and JAXA's Mercury Magnetospheric Orbiter (MMO). ESA's Mercury Transfer Module (MTM) will carry the orbiters on a seven year journey to Mercury. The mission will study all aspects of Mercury and its environment to understand more about the origin and evolution of a planet located near its parent star.

www.esa.int/bepicolombo

→ MEMORY GAME

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