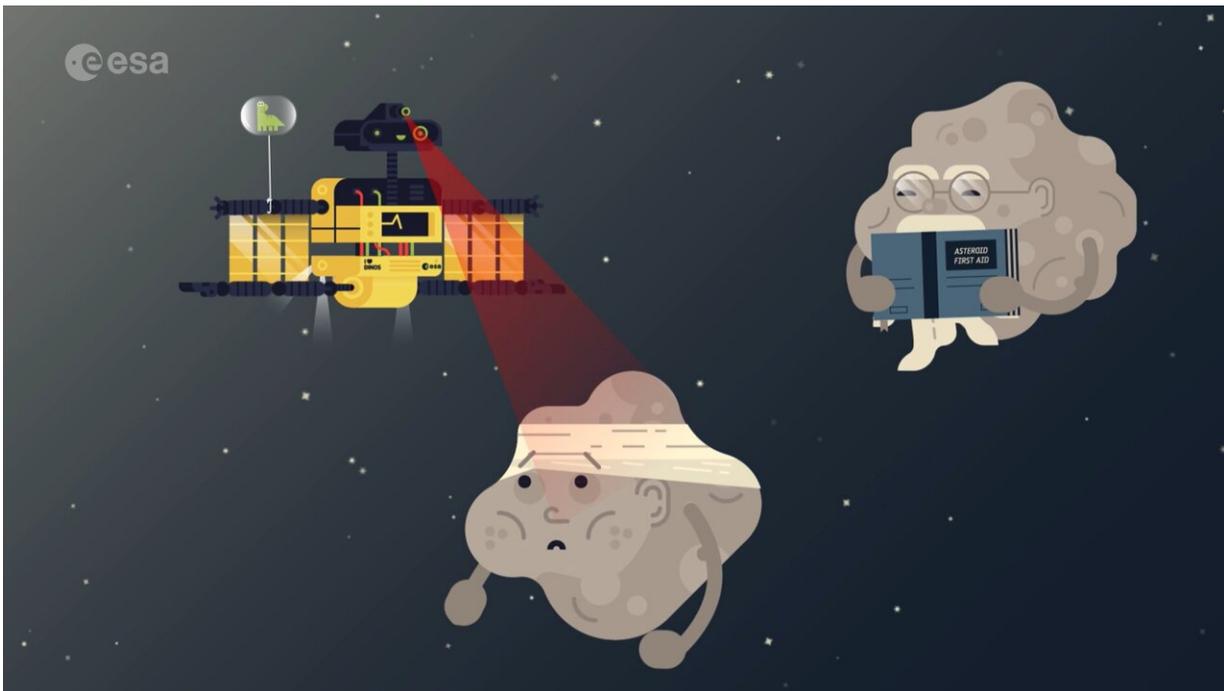


# The incredible adventures of the Hera mission

June 2 2021



Meet Hera, our very own asteroid detective. Together with two CubeSats – Milani the rock decoder and Juventas the radar visionary – Hera is off on an adventure to explore Didymos, a double asteroid system that is typical of the thousands that pose an impact risk to planet Earth. When Hera reaches it, the smaller of the two asteroids (Dimorphos) will already have been impacted by NASA’s Double Asteroid Redirection Test, or DART. This cosmic shove is expected to slightly shift Dimorphos’ orbit around the larger Didymos asteroid. Hera will examine the crater left by DART, the composition of Dimorphos, map its surface temperature and probe its internal structure similarly to an X-ray. Credit: ESA/Science Office

Meet Hera, our very own asteroid detective. Together with two briefcase-sized Cubesats—Milani the rock decoder and Juventas the radar visionary—Hera is off on an adventure to explore Didymos and Dimorphos, an asteroid pair typical of the thousands that pose an impact risk to planet Earth.

Planetary defense requires planetary cooperation. Hera is set to rendezvous with the asteroid pair in 2026, by which time NASA's DART spacecraft will have already impacted Dimorphos, the smaller of the two asteroids. This cosmic shove is expected to slightly shift Dimorphos' orbit around Didymos.

Hera and its CubeSats will carefully examine the crater left by DART, as well as the surface and interior of the asteroids. Altogether, DART's impact and Hera's data will help us understand whether this technique could be used in future to deflect an asteroid on a [collision course](#) with Earth.

Suitable for kids and adults alike, this episode of "The Incredible Adventures of the Hera mission" takes you on a fun and informative journey to visit Didymos together with Hera. Along the way, you will discover who the main characters are, why this mission is so important, what ESA hopes to achieve with Hera and much more.



Meet Milani the rock decoder and Juventas the radar visionary. These CubeSats will be carried along with the Hera mission on an adventure to explore Didymos, a double asteroid system that is typical of the thousands that pose an impact risk to planet Earth. Whilst Milani decodes the rocky asteroid from above, Juventas will use radar to scan the surface close up. Credit: ESA/Science Office

Provided by European Space Agency

Citation: The incredible adventures of the Hera mission (2021, June 2) retrieved 25 April 2024 from <https://phys.org/news/2021-06-incredible-adventures-hera-mission.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.