

Monitoring Killer Asteroids

Grades 3-12

Space agencies are constantly monitoring the sky for asteroids headed our way. Millions of asteroids exist in our solar system, and a small number cross Earth's orbit around the Sun and potentially pose a threat to our planet. In the lesson students will learn what asteroids are, then play the part of the astronomer to discover them in real images of the night sky. Spoiler alert- there's no "killer asteroids" headed our way anytime soon!



Post lesson discussion questions

- 1) Why is it important for astronomers to search for and track asteroids in our solar system?
- 2) How do astronomers find asteroids? What types of telescopes do they use and how do they use pictures of the sky to find the asteroids?
- 3) Explain the difference between a comet, meteor and asteroid.
- 4) Where are most of the asteroids in our solar system? Do they pose a threat to Earth at that location?
- 5) If we find out an asteroid is on a collision course with Earth, what should we do about it?

Post lesson activities

- Build a paper model of the WISE spacecraft: <https://science.nasa.gov/kids/the-universe/universe-spacecraft-paper-models>
- 3-D print asteroid Vesta: <https://nasa3d.arc.nasa.gov/models/printable>
- The Space Rocks toolkit from NASA's Night Sky Network has many great activities, including identifying meteorites and using transparencies to learn more about finding asteroids in the infrared: https://nightsky.jpl.nasa.gov/download-view.cfm?Doc_ID=463
- Make a model asteroid out of clay: <https://www.jpl.nasa.gov/edu/teach/activity/modeling-an-asteroid/>

Other Resources

Information about Asteroid Day (June 30th) and how your class can participate: <https://asteroidday.org/>

Center for Near Earth Object website- contains up to date information about near Earth asteroids and possible threats: <https://cneos.jpl.nasa.gov/>