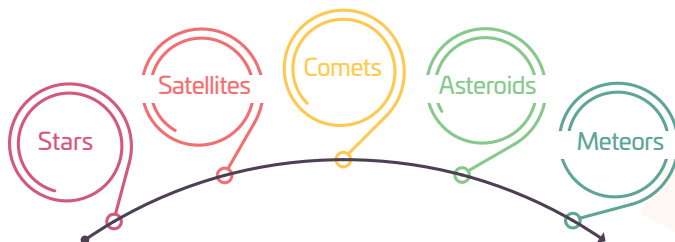




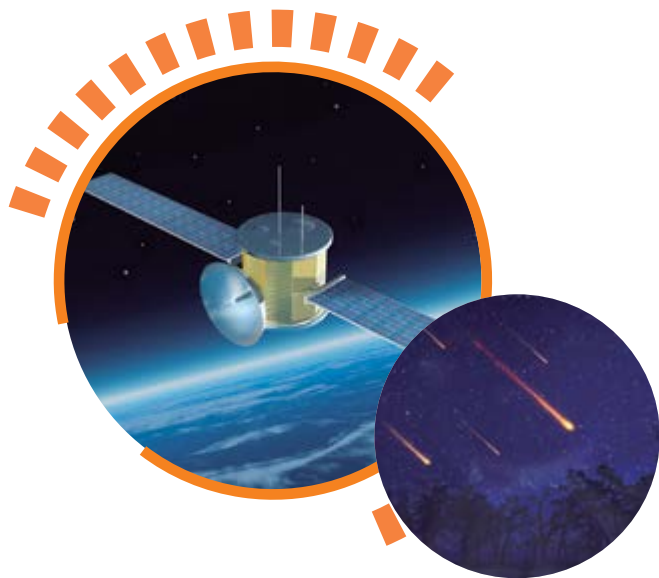
# What can you see at night?

**01** With a classmate, discuss what you know about the celestial bodies below.



**02** Read “A Star Is Born.” Match the celestial object to its description.

- |               |  |
|---------------|--|
| 1. stars      | a. glowing balls of gas conducting fusion                        |
| 2. satellites | b. burn when they enter the atmosphere                           |
| 3. comets     | c. can be seen with the untrained eye when they approach the Sun |
| 4. asteroids  | d. can be natural or artificial                                  |
| 5. meteors    | e. come together to form a belt                                  |



## A Star Is Born

If you used your **naked** eye, you would probably say all celestial bodies look alike. However, learning about them can help you better identify them.

Stars are hot, dense, spinning balls of hydrogen and helium that glow due to their continuous **fusion** reactions. They are classified based on many factors, such as **magnitude** or brightness. They can also be classified by color, ranging from yellowish to blue. A star's color is determined by its surface temperature, varying from 2,500 Kelvin (K) in red stars to 50,000 K in blue stars. Another element of star **classification** is size; the smallest stars, called dwarfs, are 12,000 kilometers in diameter, while supergiants are 1,000 times larger than our Sun.

Other celestial bodies are also visible in the night sky. Satellites revolve around planets and can be natural, like our Moon, or **artificial**, like communication satellites. Satellites like our Moon are seen regularly, while other objects, such as comets, asteroids, and meteors, are only occasionally visible. Comets are pieces of ice and rock that form at the outer edge of our Solar System. They heat up when they come closer to the Sun, creating a beautiful vapor tail. Asteroids are irregularly shaped rocks grouped in space. The most oversized asteroid belt in our Solar System is between Mars and Jupiter. Finally, meteors are space objects pulled toward the Earth by its gravitational pull and burn when entering the **atmosphere**. When this happens, they are called shooting stars.

**03** Read the text again. Write the word next to its definition.

- |   |       |
|---|-------|
| 1. without optical support                  | _____ |
| 2. join together and release energy         | _____ |
| 3. measure of brightness                    | _____ |
| 4. to categorize                            | _____ |
| 5. not occurring naturally                  | _____ |
| 6. the layer of gases surrounding the Earth | _____ |

**04** With a classmate, discuss the questions below.

- › Have you ever seen any of these heavenly objects?
- › If so, which ones? What were they like? If not, which ones would you like to see? Why?

**05 Write "2" for Second Conditional, "3" for Third Conditional, and "M" for Mixed Conditional.**



1. If I could go to space, I would visit the Moon.



2. Astronomers wouldn't have developed spectrographs if Newton hadn't done investigations with color and light.



3. I would be passing physics if I had studied harder.



4. Nancy would have gotten the job if she had done the summer internship.



5. Valeria would go to the planetarium more often if she had more time.



6. I would read the astronomy book if Jenny had returned it to me when she promised.

**07 Research one of the heavenly bodies from the text in more detail. Write a fact file about it.**

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**06 Unscramble the sentences below.**

1. I / more / If / money / had / I / tourism / do / would / space

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2. Sean / have / museum / gone / would / to / the / with / his / school / if / sick / he / been / hadn't

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3. Viola / telescope / still / have / would / her / if / broken / hadn't / Henry / it

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4. If / Missy / in / Italy / lived / study / she / able / would / be / to / at / Cern

---



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5. If / more / had / Mike / had / time / he / would / investigated / have / galaxy / the / more

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**08 Work in groups and share what you have learned about celestial bodies. Express your opinions about them. Use the language below to guide you.**

