Lesson 4 Why Stars Twinkle
Warm-up questions

Have you seen stars twinkle in the sky?
Why Stars Twinkle

There are billions of stars in the sky. These stars give a steady and bright light. However, when we look up into the sky at night, we see them twinkling. But do stars really twinkle? The truth is that no stars twinkle. Stars seem like they do so because they are too far away from Earth.
• **Read and learn**

Light from stars travels a very long **distance** before it reaches us. When light travels through Earth’s **atmosphere**, it changes **directions** many times. That makes the stars look like they are **dimming** and **brightening**. Thus, they seem to twinkle.

- **distance**
  - the length between two places or things
- **atmosphere**
  - the gases around the Earth
- **direction**
  - the position things move toward
- **dim**
  - dark, not bright
Now we know stars do not twinkle. But whether stars twinkle or not, we still love to sing the song “Twinkle, Twinkle, Little Star”. Don’t we?
• Crossword Puzzle

Across
1. not changing
3. refers to light which flickers
5. gases around the earth

Down
2. the length between two places or things
4. dark, not bright
6. the position things move toward
• Grammar

in the distance

*used to express “far away”*

Examples

She saw an airplane flying in the distance.

I can see the cloud in the distance.

Give example sentences using “in the distance”.

1. ________________________________.
2. ________________________________.
• Write T if the sentence is true and F if it is not.

_____ 1. There are only a few stars in the sky.
_____ 2. Stars produce an unsteady and dim light.
_____ 3. Light changes in many directions when it travels.
_____ 4. Starlight travels in a very short distance before it reaches the earth.
_____ 5. The light travels through the Earth’s atmosphere.