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LUCETE.ACADEMY

# LUCETE READING E8-1

UNIT 5. The Invisible Marvel: Black Holes

# The Invisible Marvel: Black Holes

## Let's Check!

1. What are the keywords?
2. What is the main idea of the text?



### READING SECTION:

#### The Invisible Marvel: Black Holes

Have you ever heard of a place in space where even light can't get out? This **puzzling** spot is known as a black hole. Some people think black holes are empty spaces. In reality, they are areas with such strong **gravity** that not even light can escape.

Black holes form when the core of a big star falls in on itself. This falling in **triggers** a star **explosion**, which sends part of the star into space. What remains turns into a black hole. So why are black holes important? They play an important role in helping scientists to understand gravity better. Studying black holes helps scientists learn about the universe's history and galaxy formation. Moreover, they are hard to study because even light can't escape from them, making them mysterious.

One of the most exciting **milestones** in recent years is the first- ever picture of a black hole, taken in 2019. Scientists used a network of eight telescopes from different parts of the world. Next, they combined their images to create a detailed picture of a black hole for the first time. The data gathered could provide a better understanding of some of the universe's most puzzling spots. If you're intrigued by the mysteries of the universe, black holes are a **compelling** topic that can deepen your understanding of the natural world.

6 vocabulary key words: puzzling, gravity, trigger, explosion, milestones, compelling

# The Invisible Marvel: Black Holes

## Let's Check!

1. What is the summary?



# The Invisible Marvel: Black Holes

## Let's Think!

### 1. Beginning of the Passage:

Question: Some people believe space exploration, like studying black holes, is a waste of resources. Do you agree or disagree, and why?

Answer: I (agree/disagree) that space exploration is a waste of resources because \_\_\_\_\_.

### 1. Middle of the Passage (First Half):

Question: Picture a huge star collapsing and creating a black hole. If you could create a movie about this event, what exciting title would you give it and why?

Answer: If I made a movie about a star creating a black hole, I would call it "\_\_\_\_\_" because \_\_\_\_\_.

### 1. Middle of the Passage (Second Half):

Question: If black holes are key to understanding gravity and the history of the universe, what kind of superpower related to black holes would you like to have, and how would you use it for good?

Answer: If I had a black hole-related superpower, it would be \_\_\_\_\_. I would use it to \_\_\_\_\_ because \_\_\_\_\_.

### 1. End of the Passage (First Half):

Question: Imagine scientists are preparing to take the second picture of a black hole, and they allow you to ask one question about black holes that they'll answer using the new image. What would you ask, and why are you curious about that?

Answer: If I could ask the scientists one question about black holes, it would be "\_\_\_\_\_" because I'm really curious about \_\_\_\_\_.

### 1. End of the Passage (Second Half):

Question: Do you think there's more to gain or fear from solving cosmic mysteries like black holes? Should we continue deep-space exploration knowing it may reveal uncomfortable truths?

Answer: I think there's more to (gain/fear) from solving cosmic mysteries, and we (should/should not) continue deep-space exploration because \_\_\_\_\_.

# The Invisible Marvel: Black Holes

## Wrap Up!

1. Why is a picture of a black hole special, and what can it teach us about space?
1. How do black holes help us learn more about gravity?
1. Why was it important for scientists from different places to work together to take a picture of a black hole?



# DEBATE TITLE: The Land of Chattering Squirrels: Toby's Adventure

- **Topic:**

**Empathy and Compassion:** One moral is the importance of empathy and compassion towards others, regardless of their species.

**Appreciation of Home:** The story imparts the value of appreciating one's home and origin.

**Courage and Determination:** The narrative highlights the importance of courage and determination in overcoming obstacles.

- **Discussion question:**

1. **Compare and Contrast** the city and Greenwood, based on Toby's experiences. How does each place influence Toby's feelings and decisions?
2. **Conflict and Resolution:** Identify a major conflict in the story and describe how Toby resolves it. How does this resolution impact Toby, the squirrels, and the story as a whole?
3. **Moral Dilemma:** Toby decided to help the squirrels escape from the zoo, even though it was against the zoo's rules. If you were Toby, would you have made the same decision? Why or why not? Discuss the ethics of this action and the possible consequences.