

Name:	Date:
	Date:



Looking Back in Time—Through Space

1. This image shows a star being born. How would	JAMES WEBB SPACE TELESCOPE CARINA NEBULA NGC 3324
you describe it to someone who wasn't able to see it?	
	NIRCam Filters F090W F187N F200W F470N F335M F444W

2. There was a lot of tricky vocabulary in today's *Shortcut!* **Write** a definition, then **check** in a dictionary. Finally, **draw** a picture that illustrates the meaning (and will help you remember it!).

IMAGE: NASA, ESA, CSA, STScI

astronomer	
exoplanet	
atmosphere	
biosignature	
orbit	

Literal: 2, 3 Connection: 1, 3



3. NASA's James Webb deep space telescope is named after a man who ran the US space agency in the 1960s. But a group of astronomers is petitioning NASA to change its name, to honour Harriet Tubman instead. First, **read** about each person.



Harriet Tubman was born into slavery in 1822. She escaped, only to return to danger at least 13 times to help other slaves escape. During the American Civil War—when the slave-holding South was fighting the North—Tubman was a spy for the North (which wanted to ban slavery for the whole country). After the war, she fought for women's right to vote. During her time helping slaves escape north, she used the stars in the night sky to navigate towards freedom.



James Webb led NASA from 1961 to 1968, during America's space race with the Soviet Union (a group of countries led by Russia). The US was considered to be the winner of the race after their 1969 moon landing. Before NASA, Webb had worked at the US State Department, at a time when the US government was firing employees whose lifestyle or political beliefs they thought were a threat during the Cold War. (The government has since apologised for these actions.) Experts disagree on how involved Webb was in these firings.

4. Do you think deep	space exploration is worth the	cost? Justify your opinion with evidence.

Literal: 2, 3 Connection: 1, 3 Critical thinking: 1, 3, 4

Do you think the telescope should be renamed? Explain why or why not.