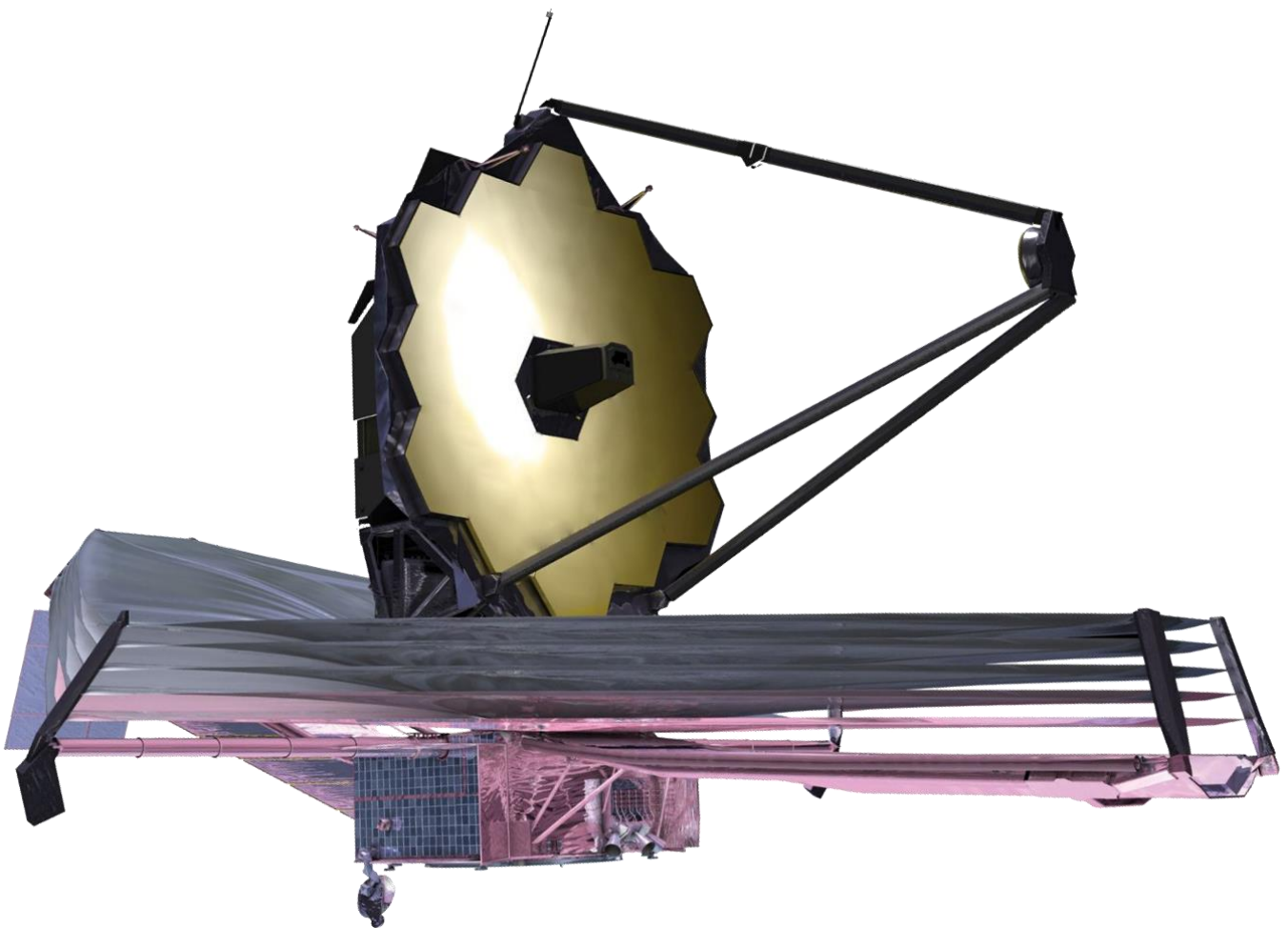




## Build the James Webb Telescope Mirror

Webb's mirror has **18** golden segments.

The completed jigsaw is the size of just **1** real mirror segment.

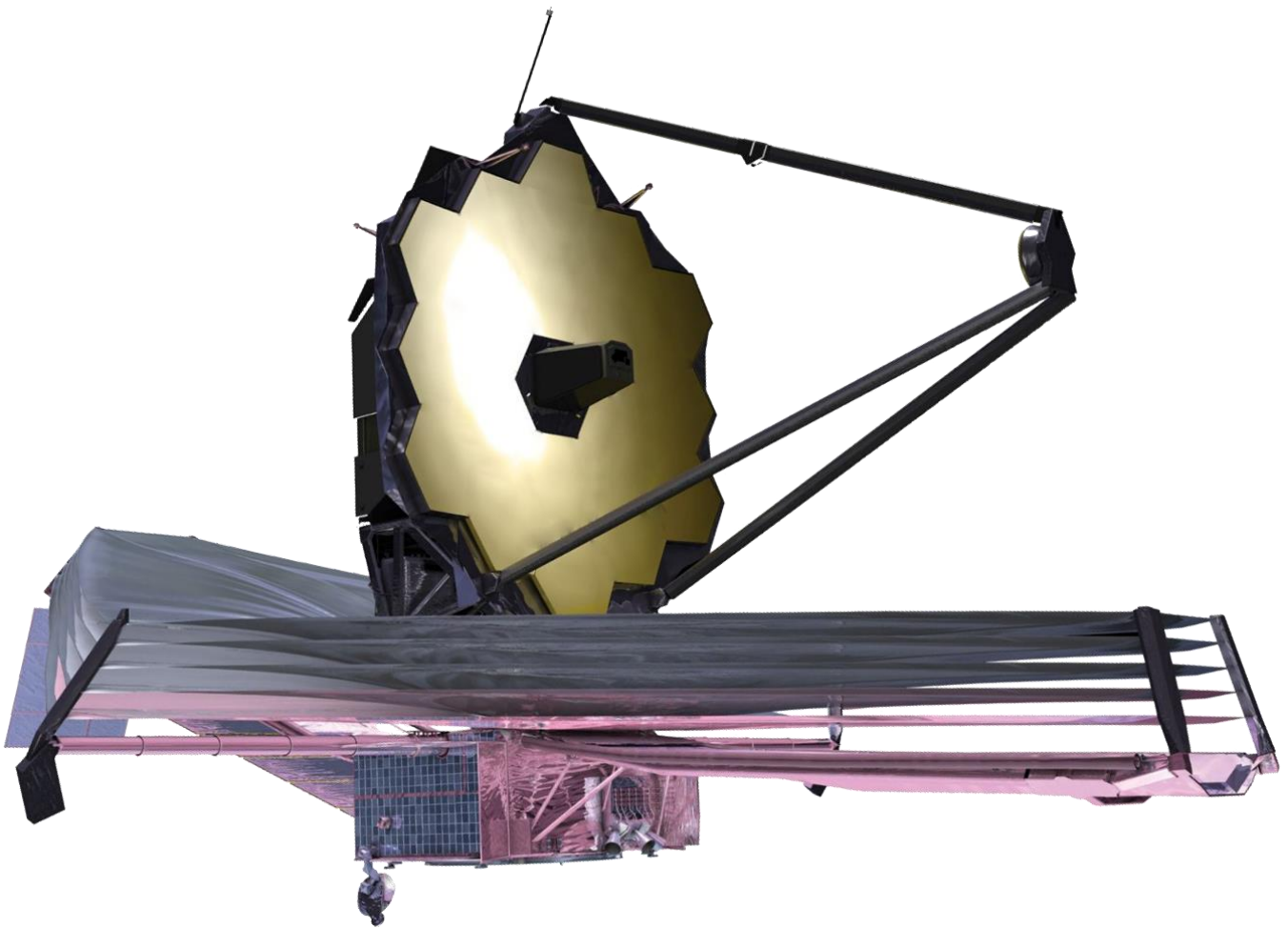




## Build the James Webb Telescope Mirror

Webb's mirror has **18** golden segments.

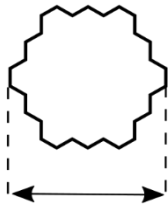
The completed jigsaw is the size of just **1** real mirror segment.



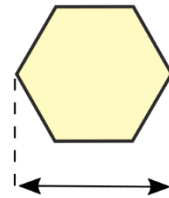
- Why do you think they used hexagons rather than pentagons?
- Why is there a gap in the middle of the mirror?
- Which six segments fold up for the telescope to fit in the rocket?

## How big is Webb's real mirror?

Use the completed jigsaw to work out how large the real Webb Telescope mirror is.

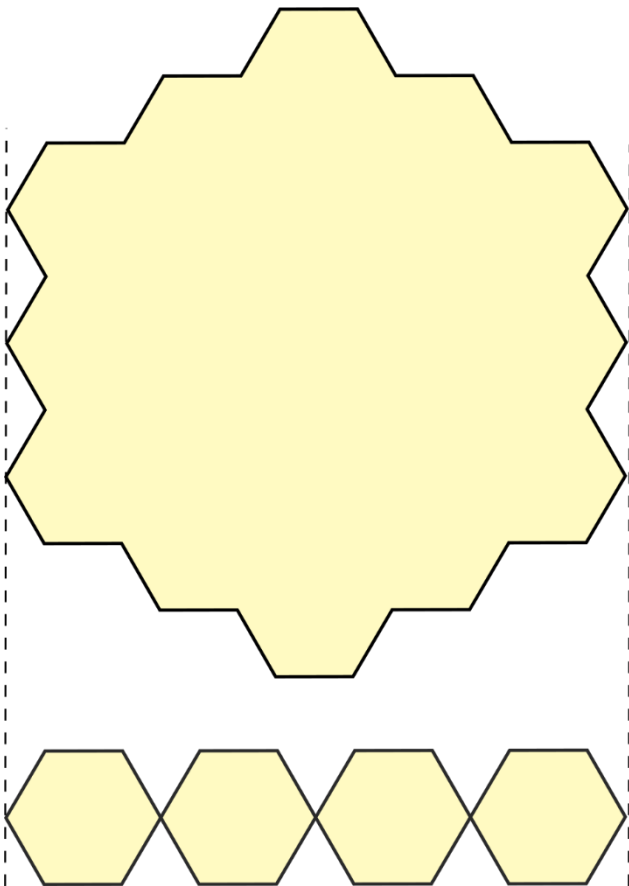


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**1** Measure the completed jigsaw...

**2** This is the same size as just ONE of Webb's real mirror segments



**3** Webb's mirror is as wide as FOUR of its own segments laid point to point

**4** Now measure out how large the real mirror is

## Measuring String

Use this string to measure the completed jigsaw from point to point.

A large, thick blue outline of a regular hexagon, centered on the page. Inside the hexagon, the text "Return String Here" is written in a bold, blue, sans-serif font.

**Return String Here**

## Pentagon Puzzle

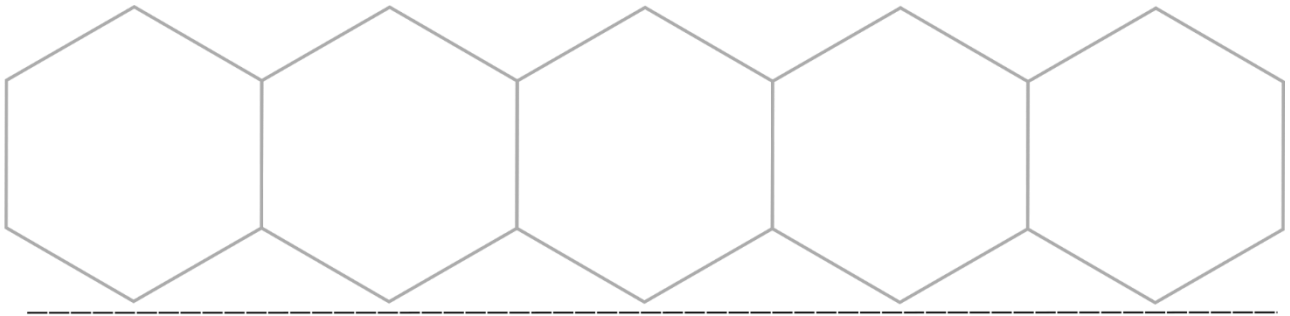
Can you assemble a telescope mirror from the pentagons?  
Why do you think Webb uses hexagons?

A large, hollow blue pentagon outline that frames the central text.

**Return Pentagons  
Here**

## Hexagons

Fold along the dashed lines, then carefully cut along (not outside) the solid lines to create a set of twenty hexagons. Webb's primary mirror has eighteen hexagons.





## Pentagons

Fold along the dashed lines, then carefully cut along (not outside) the solid lines to create a set of twenty pentagons. Webb's primary mirror has eighteen hexagons.

