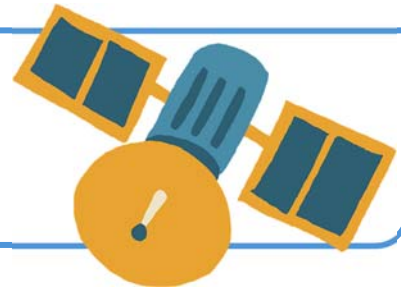


Name \_\_\_\_\_

## Orbital Transfer

**Directions:** Read the scientific text. Write a **concise summary** using only the most essential ideas.



Satellites placed into orbit must reach a specific speed and direction to remain circling Earth instead of falling back down. This balance is controlled by gravity and forward motion. One common method of reaching the correct orbit is called a **transfer maneuver**, in which the satellite first enters a lower temporary orbit and then fires its engines at a precise point to shift into a higher, stable orbit. Engineers carefully calculate the timing, speed change, and fuel use for this maneuver because small errors can cause the satellite to miss its target orbit. Efficient transfer maneuvers reduce fuel use and allow satellites to function for longer periods of time.

### Summary Construction Task

1. Identify three **non-essential details** in the passage that should be left out of a good summary.
2. Identify three **essential ideas** that must be included in the summary.
3. Write a **two to three sentence scientific summary** that accurately explains the main idea of the passage without copying full sentences.

**Student Summary:**

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