

# MISSION CONTROL

**Mission 1-Lift Off:** In a short amount of time, astronauts go from walking on the Earth to orbiting it. How much time is there from when they depart for the launch pad until they reach their higher orbit?

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Here are things you can do in the same amount of time....

- Watch both "High School Musicals" with bonus content
- Sit through roughly 5 periods at school
- Watch a Cleveland Browns game

**Mission 2-Orbit:** How long are the main engines burning from the time they ignite until they are shut down?

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Here are things you can get done in that amount of time...

- Send 20 text messages to friends
- Fix and eat a peanut butter and jelly sandwich
- Download 4 ringtones

**Mission 3-The Landing:** John Glenn's orbital velocity was 17,500 mph. If you could travel that fast on land, how long would it take you to go from Portland, Oregon to Miami, Florida (2,700 miles)? **Hint: use the formula  $d=rt$**

$$d = rt$$

$$2700 \text{ miles} = 17,500t$$

$$\frac{2700}{17,500} = \text{time}$$

$$.15 \text{ hrs} = \text{time}$$

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Judith Resnik was a 1966 graduate of Firestone High School in Akron, Ohio.

Judy was the second American woman in space. During her career, she spent 145 hours in space.

She was part of the Challenger crew, launched on January 28, 1986, which exploded 73 seconds after liftoff.

The Resnik Community Learning Center (formerly Fairlawn Elementary School) in Akron is named in honor of her life and achievements.

If you would like to learn more about Judy Resnik, visit [www.challenger.org/about/resnik.cfm](http://www.challenger.org/about/resnik.cfm)

If you would like to see an actual shuttle launch, visit [spaceflight.nasa.gov/gallery/images/shuttle](http://spaceflight.nasa.gov/gallery/images/shuttle)

**Measurement – Grades 5-7 – Benchmark E – Use problem solving techniques as needed to solve problems involving time**