

# Unit 8: Black Holes & Relativity

## Unit Review



### Black Holes

- Describe:
  - Size
  - Mass
  - Composition
  - Creation
- How are they detected?
- What is the event horizon?
- What is the Schwartzchild radius?
- What is SGR A?
- How was it detected?
- How does General Relativity relate to the structure of a Black Hole?

# Relativity

## General Relativity:

- Explain the Principle of Equivalence.
- What experiment (s) was conducted to prove Einstein's General Relativity Theory?
- What causes the Earth to orbit the Sun in light of Einstein's theory?
- If the Sun's mass changed, how long would it take for us on the Earth to notice?
- Why was this answer significant to Einstein?
- How does time vary in a stronger gravitational field?

## Special Relativity:

- List the 2 postulates.
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- List the 3 consequences.
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- Explain how time dilation was experimentally proven.

Contributions of:

- Michelson and Morley
- Maxwell
- Roemer
- Einstein