

## **CONCEPTUAL PHYSICS**

Grade Level: 9-12

Credit: 0.5 (NCAA approved)

Prerequisites: None

This course uses science fiction and current research to study introductory physics concepts and touch on ideas in theoretical physics. Topics include the electromagnetic spectrum, Doppler effect, star evolution, the solar system and universe, distance and time relationships, theory of relativity, quantum mechanics, and the many worlds theory. The concepts are applied in a final research project. Online research is a regular part of this course.

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### **Conceptual Physics**

#### **Teacher Message**

#### **Reading List**

#### **Lesson 1: Introduction**

#### **Lesson 2: Light**

#### **Lesson 3: Optical Camouflage**

#### **Lesson 4: One Shift, Two Shift**

#### **Lesson 5: Black Holes**

#### **Lesson 6: SETI**

#### **Lesson 7: Space Travel**

#### **Lesson 8: Relativity**

#### **Lesson 9: Time Travel**



**Lesson 10: More Travel Tips**

**Lesson 11: Quantum Mechanics**

**Lesson 12: Many Worlds**

**Lesson 13: Reflection and Feedback**

