

# Rio Americano High School AP Physics 2

## AP2.08 Advanced Light and Optics

[2/2/18]

### 1. T 2/6 – Cosmos: A Spacetime Odyssey

Episode 10. The Electric Boy (out of sequence)

### 2. W 2/7 – Image Formation

Lab Springboard: Reflections II

Lab Springboard: Mirror Experience

Guide: Mirror Measures

Guide: Principal Rays for Mirrors

Job: Ray Tracing 1 and 2

Q&P Page/s < > APFR:

### 3. R 2/8 – Image Characterization

Job: Image Characterization

Job: Magnification

Q&P Page/s < > APFR:

### 4. F 2/9 – Unfinished Refractions

Springboard: Snell's Law (with  $\sin$ )

Lab Springboard: Using Snell to Find  $n$

Q&P Page/s < > APFR:

### 5. M 2/12 – Unfinished Refractions

Critical Angle (with  $\arcsin$ )

Lab Springboard: Using TIR to Find  $n$

Q&P Page/s < > APFR:

### 6. T 2/13 – Launch Into Lenses

Springboard: Lens Experience

Guide: Lens Lengths, Principle Rays

Job: Ray Tracing 3 and 4

Q&P Page/s < > APFR:

### 7. W 2/14 – Looking Through the Glass EXP

Data Collection and Analysis

Q&P Page/s < > APFR:

### 8. R 2/15 – Look Through Unknown Glass

Data Collection and Analysis

Q&P Page/s < > APFR:

### 9. F 2/16 – Corrective Lenses

Vision Defects

Q&P Page/s < > APFR:

--- PRESIDENTS' WEEK ---

### 10. M 2/26 – Numbers

Job: Number Crunching

Job: Image Meta-Analysis

Mechanical Universe: The Wave Nature of Light

Q&P Page/s < > APFR:

### 11. B1 2/27 – Water Lenses & Air Lenses

Springboard: Water Lenses

Springboard: Air Lenses

Job: Inverted Index Lenses

Q&P Page/s < > APFR:

### 12. B1 2/27 – Wave Interference

PhETLab: The Fringe of Optics

Q&P Page/s < > APFR:

### 13. R 3/1 – Wave Optics Math

Practice Problems

Q&P Page/s < > APFR:

### 14. F 3/2 – Wrap Up

TCM 2.07

### 15. M 3/5 Unit Test AP2.08: Adv. Optics

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*Essentials of College Physics* Textbook: Chapters 22 Reflection and Refraction and 23 Mirrors and Lenses

Hewitt Drew It Screencasts: LIGHT: Reflection and Refraction

Make Up Unit Test AP2.07 as soon as possible; no later than Monday, 2/12. AP make up tests are administered after school only. Remember, notecards cannot be used on make-up tests.