**Waves: Sound and Light Unit**

**Table of Contents**

**Introduction to waves and Sound Unit**

1. **Lesson #1: What Are Waves?**
	1. Lesson plan
	2. Student Record Sheet (student copies provided)
2. **Lesson #2: Types of Waves**
	1. Lesson plan
	2. Types of Waves diagrams (overhead or make copies)
3. **Lesson #3: Properties of Transverse Waves**
	1. Lesson Plan
	2. Examples of Waves (overhead or make copies)
	3. “A World in Motion” student handout (student copies provided)
	4. Wave model presentation requirements (student copies provided)
	5. Wave model rubric (student copies provided)

1. **Lesson #4: Pitch Perfect: What is Sound?**
	1. Lesson plan
	2. Experiment sheet (student copies provided)
2. **Lesson #5: Sound and Communication**
	1. Lesson plan
	2. Article: “A History of Communication Technology: Inventing the Telegraph and Morse Code” (student copies provided)
	3. Morse Code worksheet (student copies provided)
	4. String Phone Experiment station instructions (student copies provided)
	5. String Phone Experiment directions (student copies provided)
	6. String Phone Experiment example record (student copies provided)
	7. String Phone Experiment data sheet (student copies provided)
3. **Lesson #6: Ears (Supplementary Lesson to be taught by the Classroom Teacher)**
	1. Lesson plan
	2. Diagram of Ear Model and Actual Parts of an Ear Teacher information
	3. Article: “Hearing Sounds” (student copies provided)
	4. Ear Diagram: Fill in the Blanks (student copies provided)
4. **Additional Activities**
	1. Instructions

**Light Unit**

1. **Lesson #1: Introduction to Light**
	1. Lesson plan
	2. Article: “Discover Light: Electric and Magnetic Waves” (student copies provided)
	3. Experimental Record Sheet (student copies provided)
2. **Lesson #2: Transparent, Translucent, and Opaque**
3. Lesson plan
4. Shadow Art Examples (overhead or make copies)
5. **Lesson #3: Reflecting Light: Periscopes**
6. Lesson plan
7. **Lesson #4: Bending Light**
8. Lesson plan
9. Experimental Record Sheet (student copies provided)
10. **Lesson #5: Colors**
11. Lesson plan
12. Additive and Subtractive Colors (overhead or make copies)
13. Exploring Color Record Sheet (student copies provided)
14. Color Venn Diagrams (student copies provided)
15. **Lesson #6: Optics and the Eye (Supplementary Lesson to be taught by the Classroom Teacher)**
16. Lesson plan
17. Concave and Convex Lenses worksheet (student copies provided)
18. Light and Lenses PowerPoint presentation
19. How the Eyes Work: Parts of the Eye worksheet (student copies provided)
20. **Materials List for the Unit**
21. **Additional Resources for the Unit**