

Science Fusion
Module J: Sound and Light
Homeschool Pacing Guide

Options for Instruction: Two parallel paths meet the unit objectives, with a strong inquiry strand woven into each. Follow the Print Path, the Digital Path, or your customized combination of print, digital, and inquiry.

Note: Many of the Labs require specialized scientific equipment. Please check the materials list in the TE.

Unit 1: Introduction to Waves

Pacing Guide			
SE = Student Edition Interactive Worktext			TE = Teacher Edition
Days	Activity Type	Print	Digital
Unit 1 Opener			
Lesson 1: Waves			
1-2 days	Big Idea	SE, pp. 1–3; *TE, pp. 8–9	
	Lesson	SE, pp. 4–11; *TE, pp. 18–21	Screens 1–10
1 day	Review	SE, pp. 12–13; *TE, p. 22	
1 day	Assessment		◊ Lesson 1 Quiz
1 day	Enrichment	Think Science, SE, pp. 14–15; *TE, pp. 24–25	
(Optional)	Labs		† Quick Lab: Investigate Waves † Quick Lab: Water Waves

Lesson 2: Properties of Waves			
1-2 days	Lesson	SE, pp. 16–23; *TE, pp. 34–37	Screens 1–11
1 day	Virtual Lab		Screens 1–13
1 day	Review	SE, pp. 24–25; *TE, p. 38	
1 day	Assessment		◊ Lesson 2 Quiz
(Optional)	Labs		† Quick Lab: Investigate Frequency † Quick Lab: Waves on a Spring † Exploration Lab: Investigate Wavelength
Unit 1 Review and Assessment			
1 day	Review	SE, pp. 28–32; *TE, pp. 40–42	Online Unit Self Quiz
1 day	Assessment		◊ Unit 1 Test

* The digital Teacher’s Edition can be accessed through the Online Teacher Digital Management System at the Lesson Level.

TE: Lesson Level Resources > Lesson Teacher Support > Teacher Edition

† Lab Manuals can be accessed through the Online Teacher Digital Management System at the Lesson Level.

Lab Manuals: Lesson Level Resources > Lesson Inquiry Resources > Lab Manuals

† Lab Datasheets can be accessed through the online Student Edition at the lesson level.

Lab Datasheets: Lesson Level Resources > Lab Datasheet

◊ Online Assessments can be assigned to students through the Online Teacher Digital Management System. After you have assigned a Lesson Quiz or Unit Test, the assignment will appear on your student’s account in the Things to Do section. Students can then take the test online, and it will be scored automatically.

Lesson Quiz = Lesson Level Resources > Lesson Assessment > Lesson Quiz

Unit Test = Unit Level Resources > Unit Assessment > Unit Test

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Unit 2: Sound

Pacing Guide			
SE = Student Edition Interactive Worktext			TE = Teacher Edition
Days	Activity Type	Print	Digital
Unit 2 Opener			
Lesson 1: Sound Waves and Hearing			
1-2 days	Big Idea	SE, pp. 33–35; *TE, pp. 52–53	
	Lesson	SE, pp. 36–45; *TE, pp. 62–66	Screens 1–12
1 day	Review	SE, pp. 46–47; *TE, p. 67	
1 day	Assessment		◊ Lesson 1 Quiz
(Optional)	Labs		† Quick Lab: Investigate Sound Energy † Quick Lab: Different Instrument Sounds † Quick Lab: Investigate Loudness † Exploration Lab: Sound Idea

Lesson 2: Interactions of Sound Waves			
1-2 days	Lesson	SE, pp. 48–57; *TE, pp. 76–80	Screens 1–12
1 day	Virtual Lab		Screens 1–12
1 day	Review	SE, pp. 58–59; *TE, p. 81	
1 day	Assessment		◊ Lesson 2 Quiz
1 day	Enrichment	People in Science, SE, pp. 60–61; *TE, pp. 82–83	
(Optional)	Labs		† Quick Lab: Resonance in a Bottle † Quick Lab: The Speed of Sound † S.T.E.M. Lab: Echoes
Lesson 3: Sound Technology			
1-2 days	Lesson	SE, pp. 62–69; *TE, pp. 92–95	Screens 1–15
1 day	Review	SE, pp. 70–71; *TE, p. 96	
1 day	Assessment		◊ Lesson 3 Quiz
(Optional)	Labs		† Quick Lab: Sound Recording and Playback † Quick Lab: Making an AM Radio Transmitter
Unit 2 Review and Assessment			
1 day	Video-Based Project		Howler Monkeys
1 day	Review	SE, pp. 74–78; *TE, pp. 98–100	Online Unit Self Quiz
1 day	Assessment		◊ Unit 2 Test

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Unit Test = Unit Level Resources > Unit Assessment > Unit Test

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Unit 3: Light

Pacing Guide			
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Days	Activity Type	Print	Digital
Unit 3 Opener			
Lesson 1: The Electromagnetic Spectrum			
1-2 days	Big Idea	SE, pp. 79–81; *TE, pp. 112–113	
	Lesson	SE, pp. 82–91; *TE, pp. 122–126	Screens 1–10
1 day	Review	SE, pp. 92–93; *TE, p. 127	
1 day	Assessment		◊ Lesson 1 Quiz
(Optional)	Labs		† Quick Lab: Investigate the Electromagnetic Spectrum † Quick Lab: White Light

Lesson 2: Interactions of Light			
1-2 days	Lesson	SE, pp. 94–101; *TE, pp. 136–139	Screens 1–10
1 day	Review	SE, pp. 102–103; *TE, p. 140	
1 day	Assessment		◊ Lesson 2 Quiz
(Optional)	Labs		† Quick Lab: Why Is the Sky Blue? † Quick Lab: Refraction with Water † Exploration Lab: Comparing Colors of Objects in Different Colors of Light
Lesson 3: Mirrors and Lenses			
1-2 days	Lesson	SE, pp. 104–111; *TE, pp. 150–153	Screens 1–13
1 day	Virtual Lab		Screens 1–13
1 day	Review	SE, pp. 112–113; *TE, p. 154	
1 day	Assessment		◊ Lesson 3 Quiz
1 day	Enrichment	S.T.E.M., SE, pp. 114–117; *TE, pp. 156–159	
(Optional)	Labs		† Quick Lab: Mirror Images † Quick Lab: Spoon Images † S.T.E.M. Lab: Light Maze
Lesson 4: Light Waves and Sight			
1-2 days	Lesson	SE, pp. 118–123; *TE, pp. 168–170	Screens 1–12
1 day	Virtual Lab		Screens 1–14
1 day	Review	SE, pp. 124–125; *TE, p. 171	
1 day	Assessment		◊ Lesson 4 Quiz
(Optional)	Labs		† Quick Lab: Investigating Vision † Quick Lab: Shapes and Sight

Lesson 5: Light Technology			
1-2 days	Lesson	SE, pp. 126–135; *TE, pp. 180–184	Screens 1–13
1 day	Review	SE, pp. 136–137; *TE, p. 185	
1 day	Assessment		◊ Lesson 5 Quiz
(Optional)	Labs		† Quick Lab: Total Internal Reflection † Quick Lab: Light Technology in Color Monitors † Exploration Lab: Investigating Artificial Light
Unit 3 Review and Assessment			
1 day	Review	SE, pp. 140–144; *TE, pp. 186–188	Online Unit Self Quiz
1 day	Assessment		◊ Unit 3 Test

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Unit Test = Unit Level Resources > Unit Assessment > Unit Test