inquisitive

GRADE 1 · PHYSICAL SCIENCES · FAST PATH

Unit: Waves: Light and Sound

Lessons in unit: 7 · 24 teaching days · 20–30 min per day · 665 min total · ↳ Time-saving teaching move · ★ Checkpoint

1. Good Vibrations

PHENOMENON QUESTION
How can you make sound?

OUTCOME
I can show how sound is created by vibrations.

TIME
4 days · 20–30 min per day
105 min total

DAY 1 · 30 MIN

- 5 MIN — Activity 1
- 5 MIN — Activity 2
- 20 MIN — Activity 3

DAY 2 · 25 MIN

PREP Set out rubber bands, paper, and rulers in shared trays.

- 25 MIN — Activity 4
  ↳ Pass material trays between groups instead of moving students between stations.

DAY 3 · 30 MIN

PREP Set out the drum, drumsticks, and rice.

- 10 MIN — Activity 5
- 5 MIN — Activity 6
  ↳ Model one example, explain one together, then partners explain the remaining examples.
- 15 MIN — Activity 7

DAY 4 · 20 MIN

- 15 MIN — Activity 8 ★
- 5 MIN — Activity 11

2. Move to the Sound

PHENOMENON QUESTION
Can sound make things move?

OUTCOME
I can describe how sound can make other objects vibrate.

TIME
3 days · 25–30 min per day
85 min total

DAY 5 · 30 MIN

PREP Stretch plastic wrap over the bowl; set out rice and the drum.

- 15 MIN — Activity 1
- 15 MIN — Activity 2

DAY 6 · 25 MIN

- 25 MIN — Activities 3–4
  ↳ Read the explanation alongside the tuning-fork discussion; partners connect both investigations to vibration.

DAY 7 · 30 MIN

- 10 MIN — Activity 5
- 20 MIN — Activity 6 ★

3. Sound Signals

PHENOMENON QUESTION
Can we use sound to send a message?

OUTCOME
I can explain a way we can use sound to communicate.

TIME
4 days · 25–30 min per day
110 min total

DAY 8 · 25 MIN	DAY 9 · 30 MIN	DAY 10 · 30 MIN	DAY 11 · 25 MIN
10 MIN **Activity 1**	10 MIN **Activity 4** ↳ Partners discuss both signals; take one class response per signal.	**PREP** Poke cup holes and cut string to about 1 yard per pair.	20 MIN **Activity 8 ★**
15 MIN **Activities 2–3** ↳ Record students' sound messages on one class chart instead of separate group posters.	20 MIN **Activities 5–6** ↳ After the video, partners share whom they call and where instead of a second class discussion.	30 MIN **Activity 7** ↳ Model threading and tying once, then pairs assemble and test their phones.	5 MIN **Activity 11**

4. Turn on the Light!

PHENOMENON QUESTION
What do we need to be able to see?

OUTCOME
I can tell how to see an object that is in the dark.

TIME
4 days · 20–30 min per day
110 min total

DAY 12 · 30 MIN	DAY 13 · 30 MIN	DAY 14 · 30 MIN	DAY 15 · 20 MIN
10 MIN **Activity 1**	**PREP** Cut box viewing holes and the source pictures; set out one set per group.	10 MIN **Activity 6**	15 MIN **Activity 8**
5 MIN **Activity 2**	20 MIN **Activity 4** ↳ Use the prepared holes and pictures so every child has time to test the dark box.	20 MIN **Activity 7 ★**	5 MIN **Activity 11**
15 MIN **Activity 3**	10 MIN **Activity 5** ↳ Record students' examples on one class chart instead of having groups draw and post sticky notes.		

5. Beam of Light

PHENOMENON QUESTION
What happens when we shine a light on an object?

OUTCOME
I can show how shadows are made.

TIME
3 days · 25–30 min per day
85 min total

DAY 16 · 30 MIN

PREP Portion bubble solution for indoor partner groups. Set out the three light-investigation trays.

20 MIN — Activities 1–2
↳ Keep partners together indoors; compare the cups immediately after observing their bubbles.

10 MIN — Activity 3
Introduce the beam, then complete one station and explain what happens to the light.

DAY 17 · 30 MIN

PREP Keep all three trays ready. Set out opaque objects and paper for shadow tracing.

15 MIN — Activity 3
Complete the other two stations and Part 4. ↳ Pass trays between groups to save moving time.

15 MIN — Activity 4
↳ Choose from the prepared opaque objects instead of searching the classroom.

DAY 18 · 25 MIN

5 MIN — Activity 5
↳ Model one light path, then partners explain the other two examples.

15 MIN — Activity 6 ★

5 MIN — Activity 9

6. Mirror, Mirror

PHENOMENON QUESTION
Can light bounce?

OUTCOME
I can tell what happens when I shine light onto a mirror.

TIME
3 days · 20–30 min per day
80 min total

DAY 19 · 20 MIN

10 MIN — Activity 1

10 MIN — Activity 2

DAY 20 · 30 MIN

PREP Set out each group's flashlight, mirror, foil, and spoons.

20 MIN — Activity 3

10 MIN — Activity 4
↳ Pairs find examples, then explain their sorting to a neighboring pair instead of reporting one by one.

DAY 21 · 30 MIN

PREP Shape foil into balls before class.

10 MIN — Activity 5

15 MIN — Activity 6 ★

5 MIN — Activity 9

7. Light Signals

Assessment: Anchor Maps and Autogradable Summative Assessments are not included within this pacing guide.

DAY 22 · 30 MIN

20 MIN — Activities 1–2
↳ Read the full story, then connect its light signals to the traffic-light pictures in one discussion.

10 MIN — Activity 3

DAY 23 · 30 MIN

15 MIN — Activities 4, 5, 6
↳ Show all videos and read the information boxes; partners compare the messages in one discussion instead of separate class discussions.

10 MIN — Activity 7

5 MIN — Activity 11

DAY 24 · 30 MIN

PREP Set out one flashlight per pair.

30 MIN — Activity 8 ★