Tap a Message

Investigate sound and build a tapping signal.

P.1.6B "Students will demonstrate an understanding of sound. Conduct an investigation to provide evidence that vibrations create sound (e.g., pluck a guitar string) and that sound can create vibrations (e.g., feeling sound through a speaker)..."

NAME _____ DATE _____

Teacher: this page is run aloud. The script and answers are on the guide page.

1 TEST SOUND

a

tap	**hold**	**both**

b

both	**tap**	**hold**

2 SEND SOUND

plan	
test	
change	

Tap a Message

HOW TO RUN THIS PAGE

Read the directions aloud and give students a pencil and a book. Students compare a still book with a tapped book, then use the pencil and book to send a sound message across the room. Observe each test and record any help you give separately.

Students never read directions on this sheet. Read each part's script aloud, then each prompt, giving think time before students mark.

PART 1 · TEST SOUND

SAY "Put one hand on a book. Use a pencil to tap the book near your hand, then hold the pencil still against the book. Listen and feel during each test."

ROW	SAY	STUDENTS CIRCLE
a	I will read the choices: tap, hold, both. Which test made a sound? Circle it.	**tap**
b	I will read the choices: both, tap, hold. Which test made the book shake under your hand? Circle it.	**tap**

PART 2 · SEND SOUND

SAY "Your problem is to send a message to a partner across the room without speaking. Make a sound device with your pencil and book: choose one or two taps to mean wave, tell your partner your code, and write 1 or 2 in the plan box. Test your device while your partner stands across the room, write yes in the test box if your partner waves or no if not, then change your taps to be louder or slower, write loud or slow in the change box, and test again."

- Box 1 (beside plan): **1 or 2, matching the student's chosen tap code**
- Box 2 (beside test): **yes if the partner waved after hearing the code, otherwise no**
- Box 3 (beside change): **loud or slow, matching the change the student tested**

WHAT TO ACCEPT

The tapped book makes sound and can be felt vibrating; the pencil held still against it does neither. Accept the student's recorded plan, test result, and change when they match what the student did, and observe the second test.