

CHAPTER
2 **Project Recording Sheet**
Integers and Rational Numbers

Sound Speed

You can calculate the speed of sound in air by using the following formula.

$$\text{Speed of sound} = 331 + (^\circ\text{C} \times 0.6) \text{ m/s}$$

What happens to the speed of sound as the temperature changes over a 24-hour period? Obtain the hourly temperatures for one 24-hour period where you live. Complete the table.

Time	Temp.	Speed	Time	Temp.	Speed	Time	Temp.	Speed
12:00 A.M.			8:00 A.M.			4:00 P.M.		
1:00 A.M.			9:00 A.M.			5:00 P.M.		
2:00 A.M.			10:00 A.M.			6:00 P.M.		
3:00 A.M.			11:00 A.M.			7:00 P.M.		
4:00 A.M.			12:00 P.M.			8:00 P.M.		
5:00 A.M.			1:00 P.M.			9:00 P.M.		
6:00 A.M.			2:00 P.M.			10:00 P.M.		
7:00 A.M.			3:00 P.M.			11:00 P.M.		

What would happen to the speed of sound if the air temperature dropped below 0°C?

Have you ever been outside after a big snowstorm and noticed how quiet it is? If sound travels faster through solid materials, why doesn't all the snow make it noisier?

Create a sound insulator. Put a marble or similar object in a small box or can. Use the information you have discovered to wrap the box in materials to insulate the sound and make a "quiet" container.