

Exploration 1: *“How does MATTER affect Sound?”*

Materials		
Stethoscope	Container of Water	Desk

Directions:

- Gas vs Sound
 - One person puts on the stethoscope (DO NOT tap or touch the end! A very loud sound will result.)
 - Another person taps their fingers together next to the end of the stethoscope
 - Record how loud the sound was in the chart
- Liquid vs Sound
 - One person puts on the stethoscope and gently places the end in one end of the container of water
 - Another person taps their fingers together in the water at the opposite end of the tub
 - Record how loud the sound was in the chart
- Solid vs Sound
 - One person puts on the stethoscope and gently places the end on one end of the desk
 - Another person “Lightly” taps on the end of the desk opposite of the stethoscope
 - Record how loud the sound was in the chart

Record your observations in the chart below:

	Little/No Sound	Some Sound	The Most Sound
Gas			
Liquid			
Solid			

What state of matter had the most sound? _____

What state of matter had the least sound? _____

Exploration 2: "How does MATTER affect Light?"

Materials		
Clear jar & water	Piece of Cardboard	Flashlight

Directions:

- Gas vs Light
 - o One person shines the light on the wall
 - o Record how bright the light shone on the wall and what the gas did to the light
- Liquid vs Light
 - o Another person shines the light through the jar with water onto the wall
 - o Record how bright the light shone on the wall and what the liquid did to the light
- Solid vs Sound
 - o Another person shines the light through the cardboard onto the wall
 - o Record how bright the light shone on the wall and what the solid did to the light

Record your observations in the chart below:

	Little/No Light	Some Light	The Most Light
Gas			
Liquid			
Solid			

What state of matter had the most light? _____

What state of matter had little light? _____

Claim

What claim did you come up with that best answers the focus question based on the class data chart?

Evidence

What evidence statements did you come up with that best support your claim (Remember you need one for each state of matter)?

Reasoning

Please complete the following sentences:

The reason for this occurring with light traveling is _____

The reason for this occurring with sound traveling is _____
