

## 1.2 Investigation Changing Sounds

### 1. Sound Loudness

Equipment

Small whistle or other wind instrument

Digital sound level meter or sensor (optional)

Prediction: What happens to sound as it gets further away?

Method

1. You need to do this outside on the oval.
2. Two people are needed, a Sender and a receiver.
3. Have the sender, blow the whistle 1 step from the receiver.
4. Record the sound as loud, medium or soft. (or number with a meter)
5. Now repeat this at different distances: 5steps, 10steps, 20steps, 30steps

Results

Results

distance (in steps)	Loudness (or sound meter reading)
1. 1	
2. 5	
3. 10	
4. 20	
5. 30	

Conclusion

1. Did your results match your prediction?
2. If a noise was too loud for you, what could you do to make it sound softer?

## 2. Sound Pitch

Equipment

Sound instruments (small and large drum, small and large whistle, toy guitar or similar)

Prediction:

Which instrument will have the lowest sound?

1. Small or large drum?
2. Small or large whistle?
3. Tight or loose string?

Method

1. Record each of the instrument's sound in the table as high or low.
2. Try making the sound louder to see if that makes a difference

Results

Instrument	Sound
Drum (small)	
Drum (large)	
Whistle (small)	
Whistle (large)	
String (tight)	
String (loose)	

Conclusion

1. Did your results match your prediction?
2. Does loudness change the sounds pitch?
3. Why is changing pitch important for hearing?