

Y3 and Y4 Science: Sound investigation

You will need:

- 4 or 5 (**same sized**) drinking glasses or glass bottles.
- 1 wooden stick (such as a pencil)
- Water



Instructions:

1. Line up the glasses next to each other.
2. Fill the glasses with water. The first glass should have a small amount of water, the next a little more and so on until the last glass is nearly full.
3. Hit the glass with the least amount of water and observe the sound, then hit the glass with the most amount of water. Which makes the higher sound?
4. Hit the other glasses and see what sound they make. Can you create a tune by hitting the glasses in a different order?



Findings:

1. Which glass made the highest sound?
2. Which glass made the lowest sound?
3. What do you notice about the amount of water and the pitch (high or low) of the sound?
4. Last week we learned that sound is caused by things vibrating and travelling through materials (air, water, wood, bricks) as waves. Can you use this knowledge to explain why some glasses made a higher sound and some made a lower sound? (Hint: what effect is the water having on the sound waves?)