

## Dancing Salt

### You will need

- A large bowl
- Cling film
- Salt
- A sound system/Bluetooth speaker
- Food colouring (optional)
- Ingredients with different sized granules (e.g. rice, sugar, salt)

### How to do it

**Note:** For best results, place a wireless speaker directly inside the bowl before covering with cling film.

1. Place the cling film tightly over the bowl.
2. Gently pour a small amount of salt onto the centre of the cling film. You could dye the salt with food colouring beforehand so you can see it more clearly.
3. Hold or place the speaker against the bowl. Turn on the sound system and play some music. Move your speaker around at different angles until you can see the maximum vibrations in the salt. Take care as you so to not let the salt particles fall onto the speaker.
4. Observe what happens to the salt as you change you change the volume. What kind of music makes the salt dance best? What pattern does the salt make?

### What are we learning?

The speaker creates sound waves, which are temporary compressions of the air. These disturbances travel through space, transferring energy. The sound waves travel out of the speaker and hit the bowl and the cling film, causing them to vibrate. This in turn makes the salt vibrate, or “dance”. The vibrations cause the salt to move in different ways depending on the frequency and volume.