## How To Make A Sound

## **Relax and Resonate**



Here's how we **create a sound** on the violin, using the bow:

- 1. The bow hair moves along the string
- 2. The string vibrates, which creates **soundwaves**
- 3. The soundwaves go into the box and are **amplified.**

So, how do we actually make a sound on the violin, using the bow?

When the hair of the bow touches the string, the string vibrates. These vibrations create the soundwaves that we hear.

But where do those vibrations go before they reach our ear?

## They go into the box.

This is really important, because the box is essentially an **amplifier**. Whatever you put in, you'll get more of it out!

If you push the bow really hard into the string, it will and press really hard, it will squash the vibrations and it won't sound very nice!

Whereas if you keep your arm released and relaxed, you'll create much bigger vibrations from the string, and the sound will **resonate** much better from the box.

If you do this, it might sound quieter under your ear than if you're pushing and pressing the bow into a string.

But when you're performing, a relaxed and resonant sound will project much more easily to the back of large room or a concert hall, so your audience will hear you better ... and it will sound much nicer too!

The important thing to remember is: **don't press the bow too hard into the string!** That's really counterintuitive, but it's also really important!

To achieve this, we need to keep the hand and arm as free as possible. Only hold as much tension in your muscles as you need to - don't grip and squeeze!

Then you'll be able to move the bow in a way that creates consistent vibrations in the string.

And that's what will create a beautiful, resonant sound.