**PEPPER AND SOAP**

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**Aim**: explain how soap changes behaviour on the liquid surface

**Age**: 6-10 yo

**Complexity**: low

**Cost**: <£5

**Location**: inside

**Materials & Equipment**: shallow bowl, water/milk, washing up liquid, black pepper (or glitter or food colouring)

**Outline:**

1 – fill the bowl with water/liquid and sprinkle pepper evenly

2 – touch with your fingers what see how it behaves

3 – add small amount of dish soap – what happens now?

**Learning outcomes:**

* How soap works – the hydrogel used in this experiment is a synthetic plastic
* Surface tension\*\* – this experiments involves gels, solids and liquids
* Investigative techniques – students can be allowed to investigate various aspects of this experiment

*\*\*Surface tension - a contractive force that allows the surface of a material to resist an external force*

**RISK ASSESSMENT**

**Adult supervision is required for any experiment!**

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| --- | --- | --- | --- |
| HAZARD | Likelihood and Seriousness of Injury | Control Measures | Remaining Risk |
| Pepper | Can get into the eyes or nose | Be careful when putting pepper, remain at a distance, do not breath in while sprinkling. **If pepper gets into the eye wash with plenty of water** | Low |
| Washing up liquid | Can get into the eyes or be ingested | Be careful not to put touch yes with fingers**. If soap gets into the eye wash with plenty of water.** | Low |
| Food colouring | Can get into the eyes | Be careful not to put touch yes with fingers**. If soap gets into the eye wash with plenty of water.** | Low |

**First Aid:** If pepper or soap gets into the eye wash with plenty of water

**Remember - never do experiments alone!**