



A Preschool
STEAM Activity

WILL OIL AND WATER MIX?



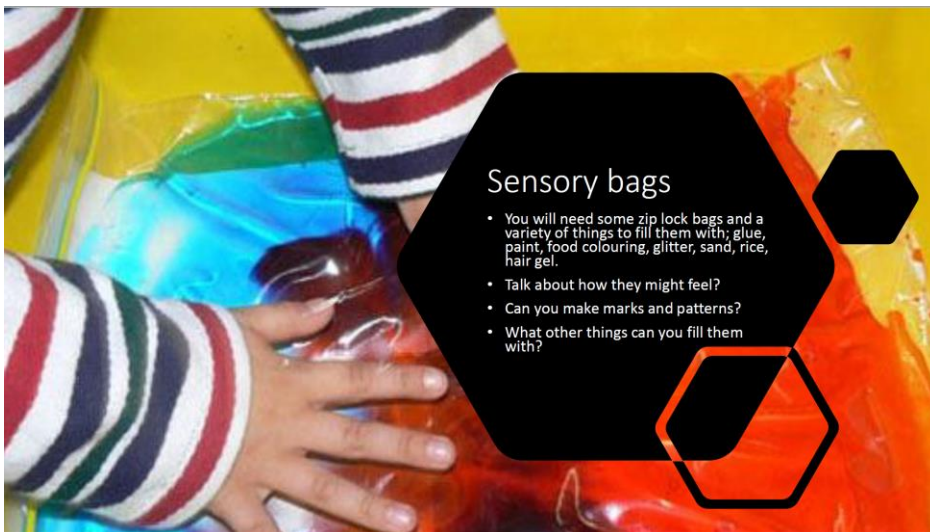
Can we get oil and water to mix?

- You will need; a jar with a lid, oil, water, egg yolk
- Put equal quantities of water and oil in the jar
- Ask if they think it is possible to mix oil and water. Maybe shaking the jar will mix the oil and water?
- It will mix temporarily, but they will be fascinated to see that water and oil immediately start to separate.
- Is there a way to get oil and water to mix?
- The key is to add an emulsifier that changes the molecular structure of the two molecule types. (follow the link above to see the science behind it). This is where the egg yolk comes into play. Drop the egg yolk into the jar and instruct the kids to shake the jar as hard as they can. The oil and water will mix!



Play the bean game. Ask your grown up to call out one of the following and you do the actions

- String bean – stretch up as high as you can
- Broad beans – make yourself as wide as you can
- Runner beans – run on the spot
- Jumping beans – jump on the spot
- Jelly beans – shake your whole body like a jelly
- Baked bean – lay down flat
- Chilli bean – hop from one foot to the other



Sensory bags

- You will need some zip lock bags and a variety of things to fill them with; glue, paint, food colouring, glitter, sand, rice, hair gel.
- Talk about how they might feel?
- Can you make marks and patterns?
- What other things can you fill them with?