

# MILK MAGIC



**SUPERNOVA**  
DALHOUSIE UNIVERSITY | HALIFAX, NOVA SCOTIA

**EXPLORE MOLECULE POLARITY IN THIS FUN  
AND EASY EXPERIMENT!**

## MATERIALS

# 4

- 1 plate or dish
- 100 mL of milk
- 1 Q-tip
- Pepper or food colouring

# 15 MINS

## PROCEDURE

Step 1

Add the milk to the plate or dish.

Step 2

Prepare the q-tip by adding a drop of soap to one end.

Step 3

Add a sprinkle of pepper, or 4 drops of food colouring (spaced apart by 1-2 cm) in the centre.

Step 4

Place the soapy end of the q-tip into the centre of the plate (not touching the food colouring). What happens?

**TRY MAKING DESIGNS ON YOUR PLATE WITH  
DIFFERENT COLOURS AND DROP PATTERNS!**

## PURPOSE & SCIENCE OUTCOMES

- The food colouring is attracted to the fat in the milk as they are similar, non-polar molecules.
- The dish soap has a polar end and a non-polar end, which is what gives it the ability to remove grease from things.
- When the soap interacts with the fat in the milk, the fat is repelled away from the soap.

**ANY QUESTIONS? REACH OUT @SUPERNOVAATDAL**