

DO TRY THIS AT HOME

Featuring: **Marvin and Milo**

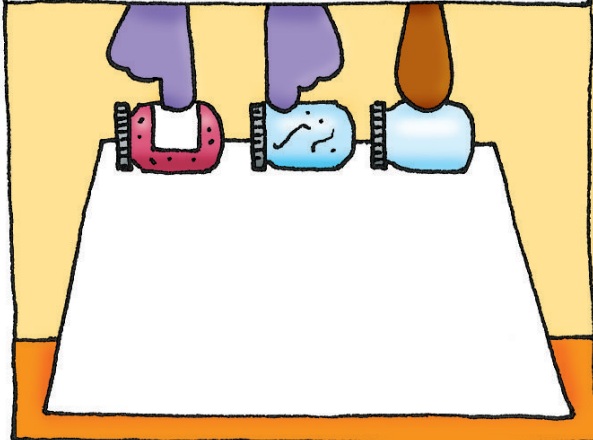
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What you need: • Three identical jam jars
• Jam • Water • A gentle slope

Hey Milo - let's have a jam-jar race!

Fill one jar with jam, another with water and leave the third empty.

Race all three jars down the slope and see which wins. Try racing them in pairs - the water-filled jar versus the jam-filled jar etc.



The water-filled jar should be fastest by a slight amount, the jam-filled jar next, and the empty jar slowest.

The force due to the weight of the jars makes them rotate as well as move down the slope. The empty jar's mass is around its edge, so a lot of the force goes into making this mass rotate. More of the jam-filled jar's mass is near its centre so less of the force goes into making this mass rotate. The water in the third jar doesn't rotate, so all of the force goes into moving the water straight down the slope.

Vic Le Billon