## Rolling jars of sugar (Post-Primary)

## Read it -- Try it safely -- Explore it further

Which jar of sugar will be the last to get to the bottom of the ramp?


Students are given 4 empty jars and a bag of sugar and are given the challenge of measuring out "one-third" and "two-thirds" full of sugar.
The students are asked:
"if all the jars roll down a ramp together, which jar will get to the bottom last?" Teacher needs to place a table against a wall and place some books under a table-leg to produce a ramp of gentle slope.
Safety: Use a cushion to avoid the glass jars breaking.

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\begin{array}{ll}
\text { Extension activities } & \text { Repeat for a variety of different gentle slopes } \\
\text { Look at what is happening to the sugar as the jars roll. } \\
\text { Can you explain why they travel at different speeds? } \\
\text { Can you find an angle where three jars roll to the bottom } \\
\text { but one jar stops half-way? } \\
\text { Repeat with rice or salt instead of sugar. } \\
\text { Is the outcome different? }
\end{array}
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