

DIY Sticky Rice



What Do I Need?

- A clean plastic drinks bottle
- Enough long grain rice to fill the bottle
- A blunt-bladed knife

Skill Level:

Easy

Time

5 minutes

How Do I Do It?

1. Pour some rice into the bottle, almost to the top.
2. Hold the container firmly with one hand and with other hand push the knife straight down into the rice.
3. Pull the knife out and push it back in slowly, never fully removing it from the container.
4. Add more rice to the bottle if the level starts to drop.
5. Continue to pull the knife out and push it back in until you notice some resistance and are able to lift the bottle using the knife alone!

Continued overleaf

DIY Sticky Rice (continued)

Safety Advice:

IMPORTANT GENERAL SAFETY NOTE FOR SUPERVISING ADULTS. This Terrific Scientific investigation has been devised so that with adult supervision, reasonable care and by following the instructions provided, no special safety equipment or knowledge is required to enjoy the experience safely. These safety reminders are designed to assist the supervising adult when planning and carrying out the investigation. Please read the instructions fully before starting.

- When lifting the bottle don't lift it too high in case the knife falls out and causes the bottle to drop.

What's Happening? The Sciency Bit:

You don't need to apply much pressure the first time you push the knife into the rice as the grains sit loosely in the jar with plenty of space between them. Every time you push the knife in and remove it again the grains move, falling into those spaces and closing up the gaps. Each time the handle is pushed into the rice the friction increases, opposing the force of gravity. After a while the rice will have become so tightly packed that there is no longer anywhere for the grains to move.

Rice is slightly elastic and so eventually when the blade is pushed in, the compact grains will bend tightly against it allowing you to lift the jar using only the knife.

I Can't Lift The Bottle Of Rice... What Can I Do?

- Push the handle slowly in and out of the rice a few more times.
- Use a taller container filled with rice and top it up if the rice level falls.