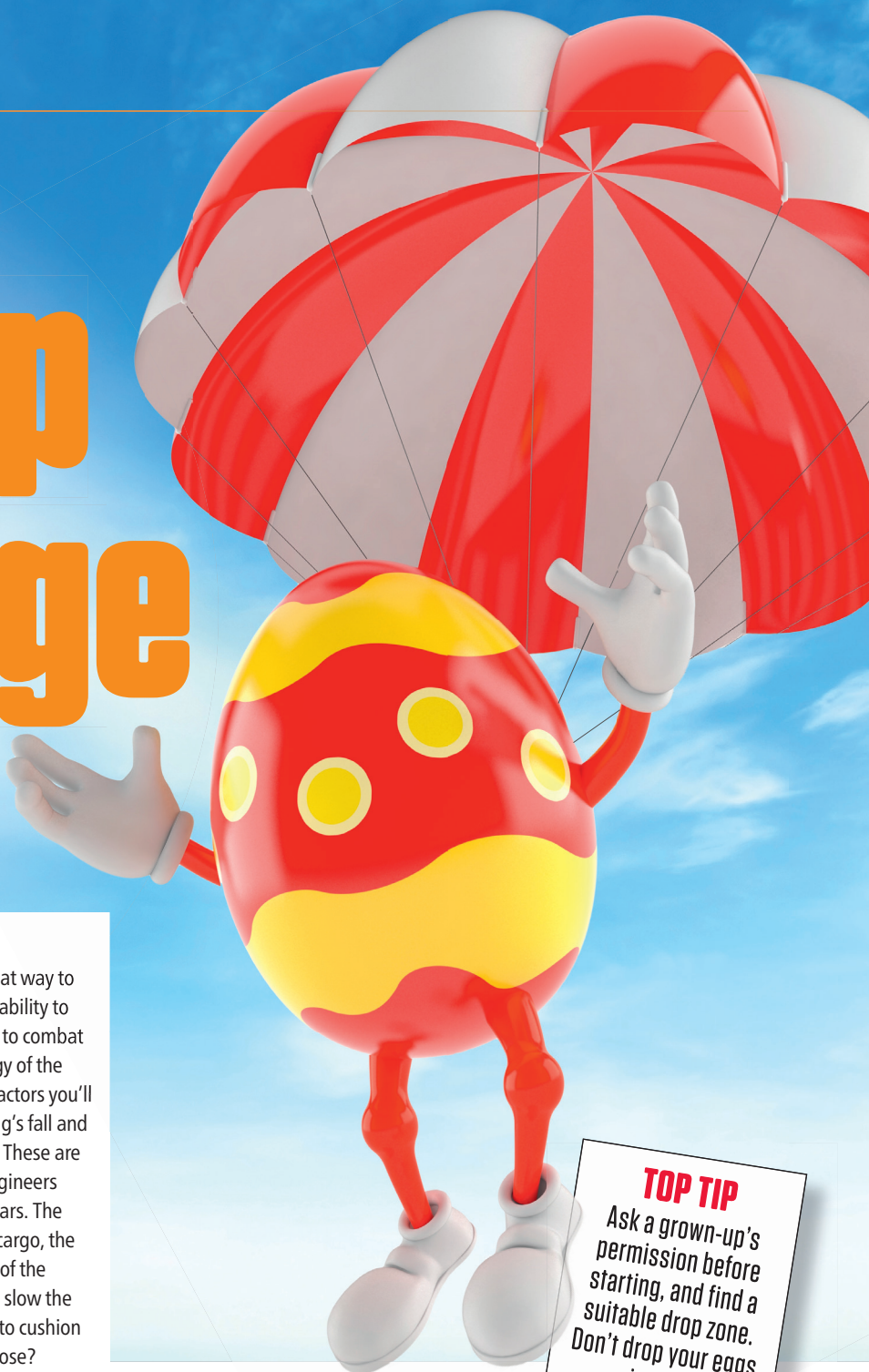


Try the egg drop challenge

Put your science and engineering skills to the test to protect a falling egg.



What you need

- Several raw eggs
- Empty toilet rolls
- Tissue paper
- Elastic bands
- Clean dish sponges
- Plastic bags
- Paper straws
- Other craft materials of your choice

How does it work?

Experimenting with an egg drop is a great way to put your creativity and problem-solving ability to the test. Whatever solution you find has to combat the force of gravity and reduce the energy of the impact with the ground. The two main factors you'll want to consider are the speed of the egg's fall and protecting the egg from a hard collision. These are the very same problems faced by the engineers trying to land robots on the surface of Mars. The more protection you give your precious cargo, the faster it falls and the greater the energy of the impact. Many landers use parachutes to slow the descent and shock-absorbing materials to cushion the landing. Which solution will you choose?

TOP TIP
Ask a grown-up's permission before starting, and find a suitable drop zone. Don't drop your eggs inside!



1 Your task is to drop an egg from a reasonable height – ideally from a first floor window. Can you make sure the egg lands without cracking?



2 One option is to create a lander from empty toilet rolls. The soft cardboard will be able to absorb some of the impact of landing.



3 You could also try adding dish sponges. Their easily compressed, open structure may offer better protection – but beware of bounces.



4 Can you attach a parachute to the egg or lander? A bigger chute will slow the fall more effectively but may also take longer to open.

If you've enjoyed these activities, share the fun with other readers. Send your photos and videos to scienceandnature@dennis.co.uk
Look out for more exciting outdoor activities to make and do in the next issue.

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