

## Science Investigation: Week 7 (Summer Term Week 5)

Let's see if you can use your scientific skills to **perform a simple test**, **observe closely** and **suggest answers to questions**.

Follow the instructions to perform the test.

Observe (watch and think about) what you see happening.

Why do you think it is happening?

Draw and write about what you saw in your workbook.

# BALLOON KEBABS

SCIENCE  
CHALLENGE **04**

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### The brief

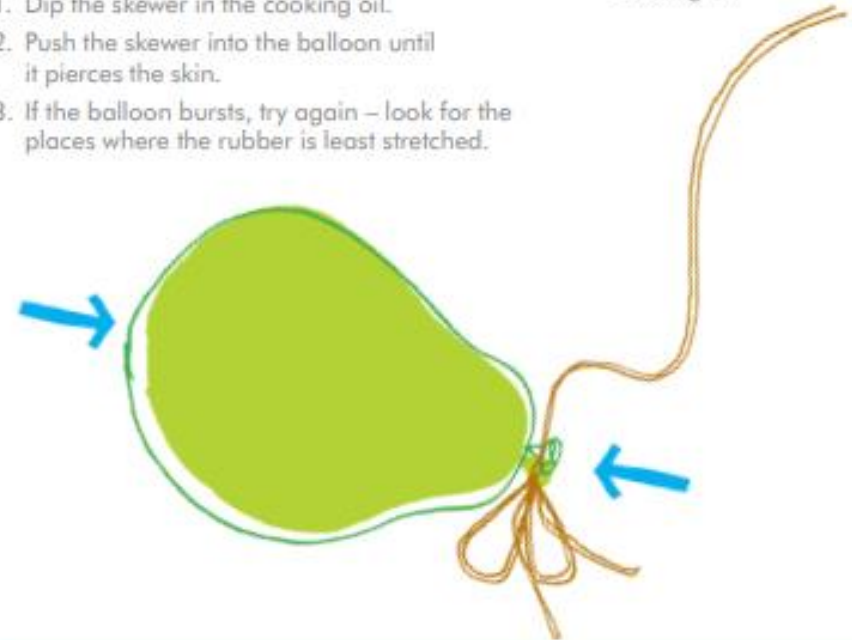
Push a wooden skewer through a balloon without popping it, creating a "balloon kebab".

### The method

1. Dip the skewer in the cooking oil.
2. Push the skewer into the balloon until it pierces the skin.
3. If the balloon bursts, try again – look for the places where the rubber is least stretched.

### Materials

A balloon inflated until  $\frac{3}{4}$  full  
A wooden skewer  
Cooking oil



### How does it work?

Most of the balloon is stretched evenly, but there are two points where the rubber is least stretched. The tied section and the darker patch at the opposite side of the balloon have the lowest surface tension. Most of the balloon is under high tension, so attempting to push the skewer through just makes the balloon pop. At the low tension sections it is possible to make a small hole without breaking the overall surface of the balloon.