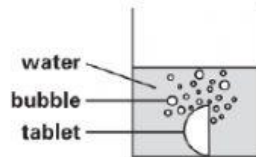


## Science Revision 8

### 3 Rocket

Jonathan puts half a vitamin C tablet into some cold water. It bubbles in the water.



Circle the correct word in each box to complete the sentences below.



(i) The bubbles show that a

solid  
liquid  
gas

is produced.

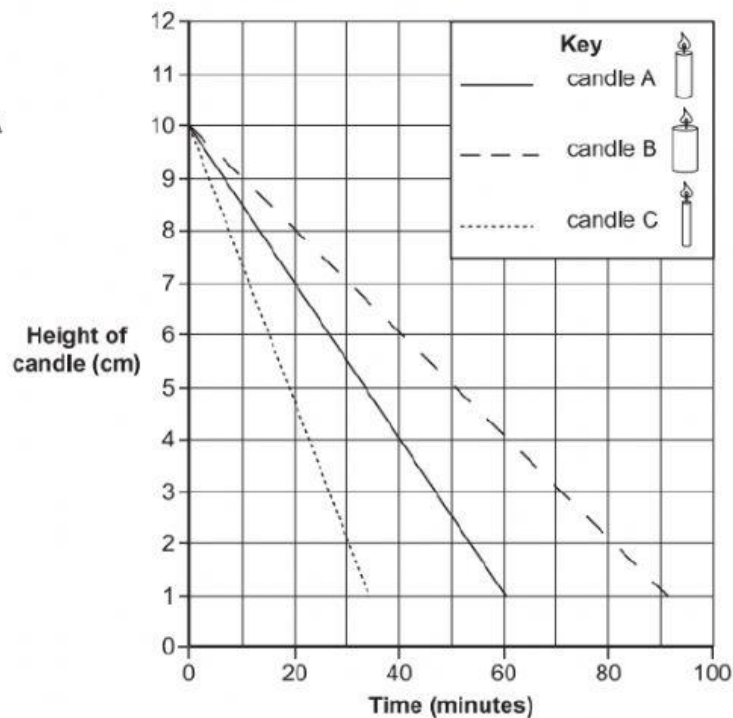
(ii) This change is

reversible.  
not reversible.

Justine wants to find out if the width of the candle affects the time it takes to burn down.

She times how long it takes for each candle to burn down to 1 cm.

The graph below shows Justine's results.



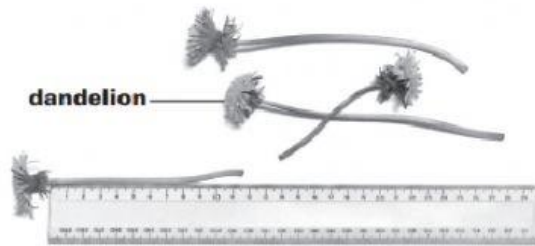
Candle C burnt down the quickest.

How many minutes did it take candle C to burn down to 4 cm?

Class 5 want to compare dandelions growing in short grass and dandelions growing in long grass.

They collect 20 dandelions from each place.

They measure the length of the dandelion stems.



This table shows the number of stems at each length in short grass and long grass.

| Length of grass | Length of dandelion stem (cm) |      |       |       |       |
|-----------------|-------------------------------|------|-------|-------|-------|
|                 | 3-6                           | 7-10 | 11-14 | 15-18 | 19-22 |
| Short           | 4                             | 12   | 4     | 0     | 0     |
| Long            | 0                             | 1    | 6     | 11    | 2     |

Tick **ONE** box to show the most common length of dandelion stems in **long** grass.



7-10 cm ☐

11-14 cm ☐

15-18 cm ☐

19-22 cm ☐

In the table, how many dandelions had stems of 15 cm and longer?

- (a) Mia has four different solids.  
Her teacher asks her to find out what the solids are.  
Mia mixes a teaspoon of each solid into different beakers of water.  
She records her observations in Table 1.

**Table 1**

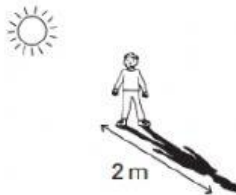
| Solid | Observation after mixing with water                                        |
|-------|----------------------------------------------------------------------------|
| A     | Most solid floats on top of the water.<br>The solid turns the water misty. |
| B     | The solid cannot be seen.<br>The liquid is clear.                          |
| C     | The solid cannot be seen.<br>The liquid is clear.                          |
| D     | Some solid sinks to the bottom.<br>The solid turns the water cloudy.       |

What is the name of the process that has happened to solids **B** and **C**?

## 6 Jack's shadow

Class 3 are investigating shadows in the playground.  
It is a bright sunny day.

Susie measures the length of Jack's shadow at **9 am**.



Then she measures the length of Jack's shadow at midday.  
Jack stands in the same position in the playground.

Which picture shows Jack's shadow at **midday**? Tick **ONE** box.

☐

☐

☐

☐

The class observed Jack's shadow on a sunny day.

Tick **ONE** box to show why the class should **not** do their test on a cloudy day.



On a cloudy day...

Jack's shadow is very dark.

☐

Jack's shadow is difficult to see.

☐

Jack's shadow does not change position.

☐

Jack's shadow is very big.

☐

(e) Susie has some ideas about shadows.

Write **true** or **false** under each idea about shadows.



The colour of a car's shadow depends on the colour of the car.

.....

You can tell if Jack's eyes are shut by looking at his shadow.

.....

The shape of the shadow depends on the shape of the object.

.....



Only light from the Sun causes a shadow.

.....

## 8 Candles

Justine lights a candle.

When a candle burns, a non-reversible change happens.



**Justine**

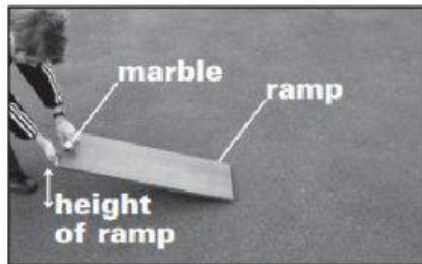
Complete the table to show if the observation is evidence of a reversible or a non-reversible change. Tick **ONE** box in each row.



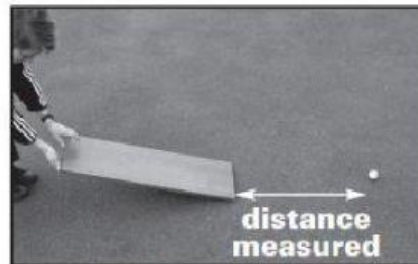
| Observation         | This is evidence of a reversible change. | This is evidence of a non-reversible change. |
|---------------------|------------------------------------------|----------------------------------------------|
| The wax melts.      |                                          |                                              |
| Smoke is given off. |                                          |                                              |

## 7 Rolling marble

John and Ravinder are investigating a marble rolling down a ramp.



Photograph A



Photograph B

They change the height of the ramp.

They measure **how far** the marble rolls from the bottom of the ramp.

They repeat their test with the ramp at different heights.

Tick **ONE** box in each row of the table to show how they should do their investigation to make sure their test is **fair**.



| Variable            | Must be the same | Must be different | Makes no difference |
|---------------------|------------------|-------------------|---------------------|
| surface of the ramp |                  |                   |                     |
| height of the ramp  |                  |                   |                     |
| size of the marble  |                  |                   |                     |
| mass of the marble  |                  |                   |                     |