

**GCSE Biology B (Twenty First Century Science)**  
**J257/01 Breadth in Biology (Foundation)**

**Question Set 28**

Multiple Choice Questions

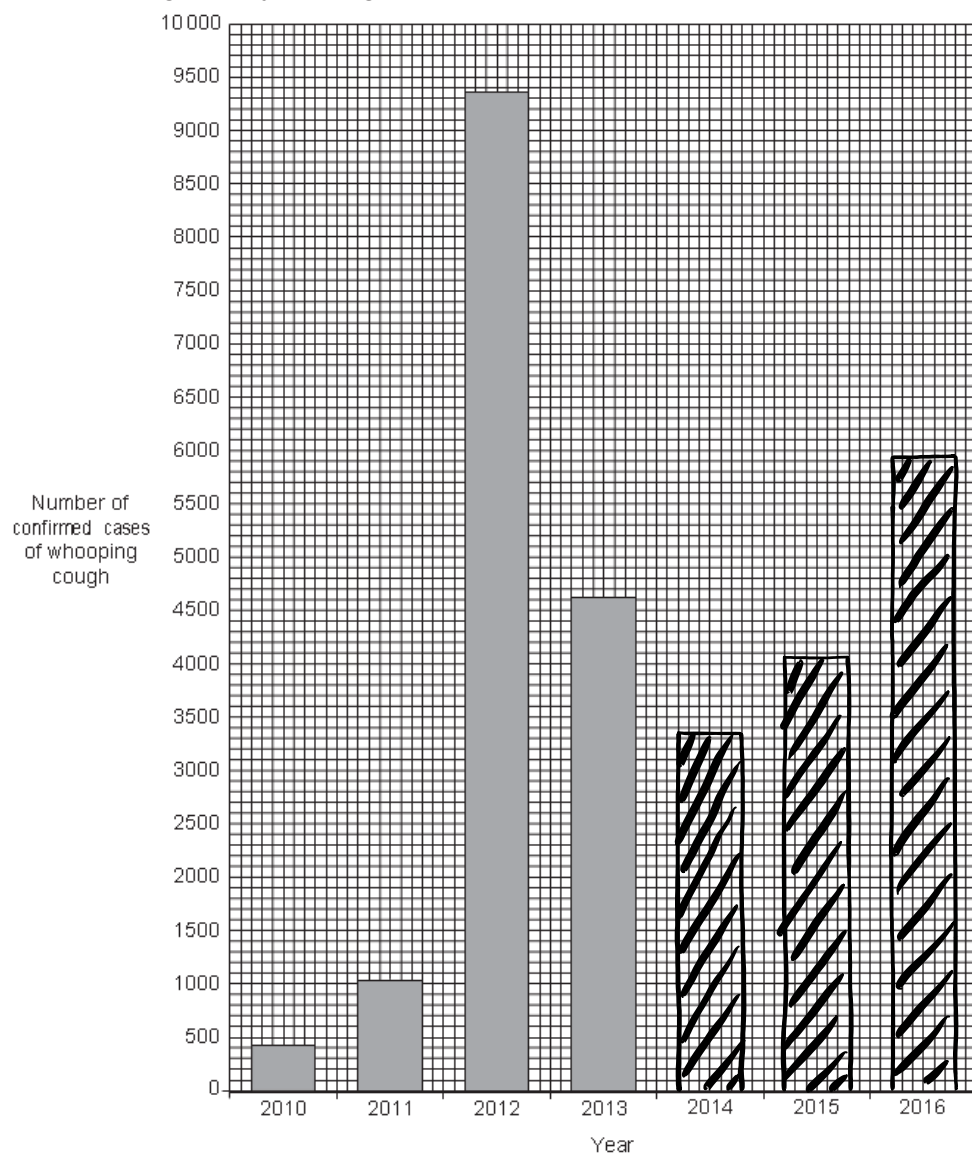
1. Whooping cough is a communicable disease caused by bacteria.

**Table 8.1** shows the number of confirmed cases of whooping cough in England from 2010 to 2016.

Year	Number of confirmed cases of whooping cough
2010	421
2011	1040
2012	9367
2013	4621
2014	3387
2015	4191
2016	5945

**Table 8.1**

(a) (i) Complete the graph by plotting the data in **Table 8.1** for 2014, 2015 and 2016.



(ii) Which **two** statements about the data are correct?

Tick (✓) **two** boxes.

The number of cases roughly doubled between 2010 and 2011.

The number of cases confirmed was lowest in 2014.

The number of cases in 2016 was roughly half that of 2015.

The number of cases peaked in 2012.

The number of cases in 2016 was lower than the number of cases in 2014.

[2]

(iii) In which year is it most likely that the vaccination rate for whooping cough dropped?

Tick (✓) **one** box.

2012

2013

2014

[1]

(b) Which statement explains how vaccines work?

Tick (✓) **one** box.

The vaccination stimulates the production of platelets.

The vaccination makes the heart beat faster.

The vaccination makes the body make more red blood cells.

The vaccination causes the white blood cells to make antibodies.

[1]

(c) Whooping cough is a communicable disease caused by bacteria. It is common in children who are not vaccinated.

Explain how this disease could spread and suggest how the spread could be prevented.

Spread - by contact & droplet infection where bacteria directly entering new host & travelling from patient to others  
prevention - minimize contact with others & wear mask, social distancing, quarantine / isolating

[3]

**Total Marks for Question Set 28: 9**

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