Name: ..... **Form:** .....

Based on **pages 18 and 19** of *Microbes*

Building up an infection

Try this…

1. Read the following paragraph.

In ideal conditions, a bacterium can produce one offspring every 20 minutes. Each offspring can then produce an offspring in 20 minutes. This means that every 20 minutes, a colony of bacteria can double in size.

2. Imagine that 10 bacteria drifted into a person's throat and settled on its surface. Show how the numbers of bacteria built up over four hours by completing this table.

Time from bacteria arriving (mins)	Size of colony (number of bacteria)
0	10
20	20
40	40
60	
80	

3. On your graph paper, make a line graph to show how the size of the bacterial colony increased in the first 80 minutes of the infection.

4. Use the graph to find how many bacteria were present 50 minutes after the infection started.

✎ .....