

### Task A

You need your street map of Manford.

**Remember: 5 miles is about 8 kilometres**

Everyone has made it to the car park where the school bus is waiting.

- 1 The whole class walking together can keep up an average speed of 2.5 miles an hour. How fast is this in kilometres per hour?
- 2 The school bus can travel in the congested streets at an average speed of 10 miles an hour. How fast is this in kilometres per hour?
- 3 Investigate the shortest safe distance by road from the Car Park to the Imperial Hotel.
- 4 How much quicker would it be to get to the Imperial Hotel by bus than by walking?

### Task B

Two Aliens came out from each of the four spaceships at 10:00 am.

Every hour, each Alien has doubled in size and exploded into two.

Someone has been trying to predict how many Aliens there might be in a few hours time.

Complete this table for them.



Time	10:00	11:00	12:00	13:00	14:00	15:00	16:00
Number of Aliens	8 $2^3$	16 $2^4$	32				

- a How many Aliens do you think that there will be 8 hours after they first came out of their spaceships?
- b How many Aliens do you think there will be at midnight? Explain why.
- c Write a formula to show the number  $n$  of Aliens that there will be  $h$  hours after they first came out of their spaceships.