ACTIVITY THREE: MARCHING SPEED

Learning objectives
To be able to solve problems which require knowing percentage and decimal equivalents of ½, ¼ and 1/10 (Year 5 – Number)

Prior learning
Students should be able to calculate a simple fraction and know the percentage equivalents of ½, ¼ and 1/10. They should have an understanding of km per hour.

Resources
- Marching Speed Worksheets
- Hazard spinners (1 per group of 2 or 4)

MAIN TASKS:
1. You are lieutenant of your platoon. You need to march 24km to Verdun. All being well, your platoon marches at 6km per hour. Your journey is split into 4 sections – each worth 6km. Each section of the journey may have a hazard – how long will your journey take?

First 6km	**Second 6km**	**Third 6km**	**Fourth 6km**
Speed: Time taken: Total time taken to travel to Verdun:	Speed: Time taken: Total time taken to travel to Verdun:	Speed: Time taken: Total time taken to travel to Verdun:	Speed: Time taken: Total time taken to travel to Verdun:

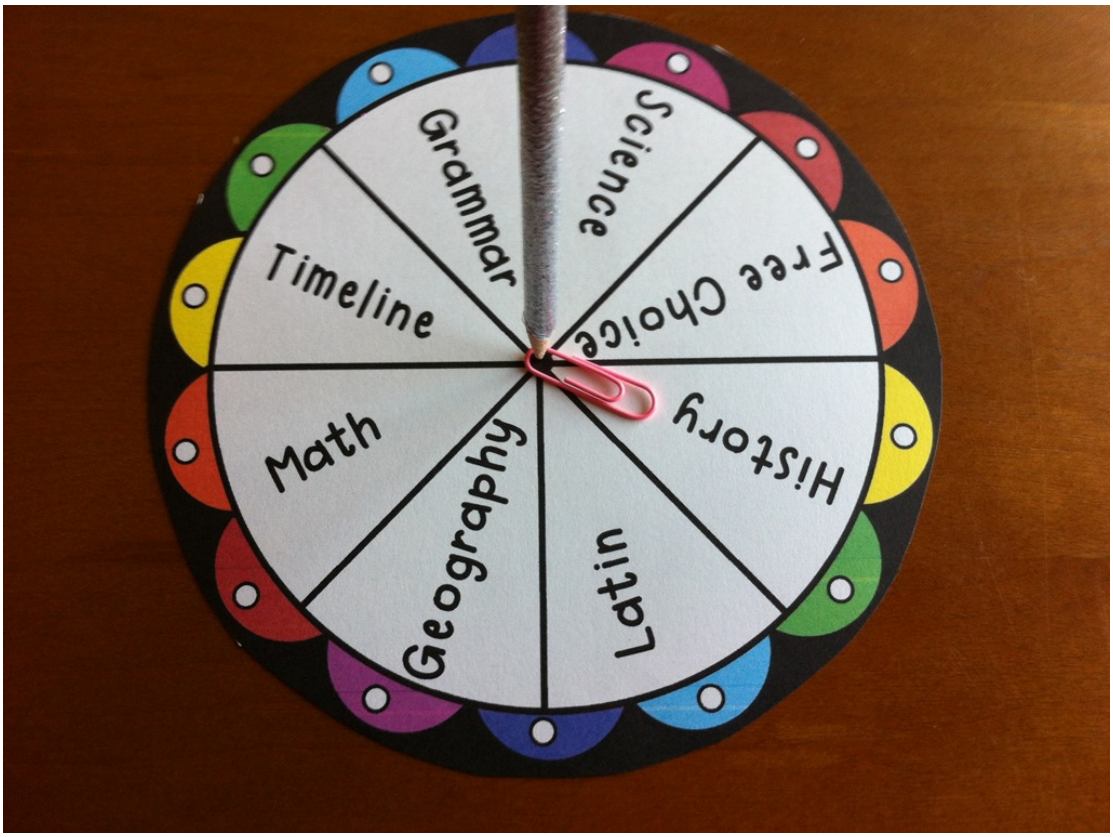
Example completed grid

First 6km	**Second 6km**	**Third 6km**	**Fourth 6km**
Speed: 3kmph Time taken: 2 hours Total time taken to travel to Verdun: 2 hours	Speed: 1.5kmph Time taken: 64hours Total time taken to travel to Verdun: 6 hours	Speed: 6kph Time taken: 1 hour Total time taken to travel to Verdun: 7 hours	Speed: 1.5kmph Time taken: 4 hours Total time taken to travel to Verdun: 11 hours

2. Students use the hazard spinner on their turn to determine their travel speed. Spin a paperclip around a pencil to determine which hazard you encounter. (There is a picture of a paperclip spinner on the next page as an example). Students then calculate the speed at which they are marching for each section based on the instructions on the spinner.

Hazard spinner contents (the one for the students is on a separate sheet)

Gas attack! Travel at 50% speed	**Enemy gunfire!** Travel at 25% speed
Thunderstorm! Travel at 25% speed	**Recovery** You're back to 6kmph



Ideas for differentiation
Lower attainers: use fractions instead of percentages.

Higher attainers: use multiples of 10% and a travel speed of 5kmph.

Review
What's the most efficient way to work out:
5% of 36?
1% of 36?
8% of 36?
Discuss strategies with children. Encourage more efficient methods such as finding half of 10%.