

TEACHER NOTES

Applying Mental Mathematics to the Railway Environment



Contextual Summary

This is a Mathematics/Number resource that enables students to practise their addition, subtraction, multiplication and division skills, as well as undertaking estimating and problem-solving challenges. The task links to specific information about the Isle of Wight Steam Railway that should be interesting and relevant to students in upper key stage 2.

Questions have been chosen because they link with core Mathematics Number skills.

Task Implementation

The skills required for the tasks should be introduced and taught before the visit to the Isle of Wight Steam Railway.

This resource is intended as a 'add-on' activity that would supplement other areas of subject/curriculum-relevant learning within the Isle of Wight Steam Railway environment.

The task could be completed on-site or post-visit.

It is possible for students to complete the questions on-site, gaining an enriched visit experience.

Ability Levels

There is one version of this resource, generally adapted for mixed ability students at upper key stage 2 or P6-P7. These could be adapted further by teachers if required, i.e. for SEN. For example, students could be tasked with answering fewer questions, or perhaps work in teams to find the answers.

Key skills practised in this unit:

- ▶ Addition
- ▶ Subtraction
- ▶ Multiplication
- ▶ Division
- ▶ Problem-solving

Relationship to Curriculum

The above skills are required to be taught and practised as per the Scottish Curriculum for Excellence and the 2014 National Curriculum, for MATHEMATICS/NUMBER at key stage 2.

SUBJECT

Mathematics

UNIT

Number

OPPORTUNITIES FOR USE

- ✗ Pre-Visit
- ✓ On-Site Activity
- ✓ Post-Visit
- ✓ Peripheral Task



20-40 Mins

APPLICABILITY



Upper KS2

P6 - P7

CURRICULUM / SYLLABUS

- ✓ National Curriculum 2014
- ✓ Curriculum for Excellence

Applies to Resource Number:

101141

Learning Opportunities

Pre-Visit

The skills should be taught and practised in class prior to the trip so students are aware of the techniques and skills they need to utilise.

During the Visit

Completion of the Mathematics/Number resource/s linked to this document:

Applying Mental Mathematics to the Isle of Wight Railway

Resource ID: **101141** (mixed ability)

Post Visit

Completion of the Mathematics/Number resource/s linked to this document:

Applying Mental Mathematics to the Isle of Wight Railway

Resource ID: **101141** (mixed ability)

- ▶ Follow-up tasks could include class discussion about the accuracy/technique used in responses.

Enrichment Opportunities

Opportunities exist for the student to practise using mental maths skills in a more stimulating, real-life situation.

Learning Outcomes

Students will be able to demonstrate, practise and consolidate their mental maths skills, by applying their previously learned skills and techniques.

See Also...

Other resources at Isle of Wight Steam Railway relevant to this age group include:

101022	English	10 Questions to ask at the railway
101111	English	Review and comment
101182	English	Understanding railway texts
101202	English	Comprehension of information
101051	Science	Forces
101082	Science	The power of steam!
101232	History	Investigate the railways
101132	History	Chronological understanding
101141	Maths	Applying mental maths to the railway

For further details visit www.edudest.info and click:

- ▶ *Resource Finder* - to locate specific resources identified above
- ▶ *Venue Finder* - to learn more about education at this venue
- ▶ *Subject Finder* - to find other relevant Isle of Wight venues

Resource Answer Sheet

Addition & Subtraction Problems

1. Varies depending on days visited (teacher will need to check on the day)
2. 41
3. £29.50
4. 14
5. 104
6. 25

Multiplication & Division Problems

1. 50
2. 5
3. 11
4. a) 15000 b) 5000
5. 21
6. a) 1300 b) 130,000

