THIS IS MATHS

Teacher Discussion Guide

Introduction

"Good numeracy is the best protection against unemployment, low wages and poor health." Andreas Schleicher, OECD.

Whether we consider ourselves **'good at maths'** or not, we need to use basic maths in every aspect of our lives, at work, at home and beyond. However, many students struggle to understand the real-world benefits and relevance of maths and numeracy.

This lack of understanding of the value of maths in **'real life'** plays its part in the dip in attainment, drop in interest, confidence and engagement with maths, and increase in maths anxiety that accompanies transition to secondary school.

National Numeracy have created the **'This Is Maths'** set of posters, in association with the University of Derby, to raise students' awareness of the value of maths and numeracy in different careers. The posters are designed to be displayed around the school corridors, classrooms and on noticeboards – anywhere that students will see them and take notice of them! The posters are designed to spark conversations around why maths is important in non-STEM careers.

How to use the posters...

...in assemblies: the posters are an ideal starting point for a numeracy related year group or whole school assembly. The assembly could feature a few of the posters, touching on some of the discussion points listed below, giving opportunity for student interaction.

...in lessons: the posters are a fantastic way to spark discussion in form time, and form tutors could pick one poster every week to discuss with their form, referring to the discussion points given below as prompts. The posters can also be useful as part of a starter or activity in sessions where students think about careers options. Using the posters as part of a **'treasure trail'** style activity, to get students moving around the school and exploring discussion points at the same time, can create a memorable lesson linking careers and numeracy.

...as homework: the posters provide scope for a related homework task, for example discussing the posters in class then getting students to interview a parent or other adult they know about how they use maths in their career or job role.

Discussion points

The table below shows each role featured in the **'This Is Maths'** posters with suggested discussion points on how each person may use maths within their role.

The discussion points are not designed to be exhaustive but act as prompts – students may come up with many more ideas of their own!

No matter what job you do, everyone uses basic maths and numbers at work.

This includes making sure you get to work on time, can check your payslip, understand your pension scheme, and understand important information at work that includes percentages or data.

For many jobs, numeracy features in the day-to-day reality of business and dealing with money, for example in calculating profits, the cost of services or products, making sales, and creating invoices.

Feeling confident with numbers will help students in every kind of job, not just the obvious ones such as becoming an accountant, an engineer or a scientist. Talk to students about other careers they might be interested in and discuss how maths and numeracy features in them.

Poster examples



‘This Is Maths’ poster role	How do they use maths?
Footballer	• Understanding match statistics • Managing calorie intake in fitness regimes • Planning for the future beyond playing football • Getting to training on time
Personal trainer	• Scheduling and managing appointments • Setting costs for training sessions • Keeping on top of VAT • Understanding nutritional data
Construction worker	• Understanding their payslip • Following Health and Safety restrictions • Measuring the quantities of materials • Following timings for projects
Musician	• Working out which BPMs work together in a song • Managing ticket sales and payments at gigs • Setting costs for merchandise • Logging song details on PRS to collect royalties
Illustrator	• Using proportion and scale for artwork • Calculating dimensions for print sizes • Pricing up commissions and estimating costs • Purchasing materials

‘This Is Maths’ poster role	How do they use maths?
Hospitality worker	• Checking stock and estimating what needs to be ordered • Checking wages match shift hours • Measuring out drinks accurately
Content creator	• Analysing data on views and engagement • Managing a budget for equipment • Working out a schedule with timings for posts
Nail technician	• Scheduling appointments • Calculating costs of materials • Working with ratio to mix different products • Geometric patterns and design
Estate agent	• Scheduling appointments across each day • Calculating profit percentages • Measuring the square footage of properties • Managing negotiations around sale prices
Healthcare worker	• Converting quantities for patients’ meds • Recording vital signs like temperature and blood pressure • Recording data accurately for patient records