

Advanced Mathematics Support Programme®





About the AMSP

- A government-funded initiative, managed by <u>MEI</u>, providing national support for teachers and students in all state-funded schools and colleges in England.
- It aims to increase participation in AS/A level
 Mathematics and Further Mathematics, and Core
 Maths, and improve the teaching of these qualifications.
- Additional support is given to those in priority areas to boost social mobility so that, whatever their gender, background or location, students can choose their best maths pathway post-16, and have access to high quality maths teaching.





The AMSP holds the NCETM CPD Standard

The CPD Standard supports maths teachers to access information about the wide range of CPD provision on offer and to be assured of its appropriateness and quality.

ncetm.org.uk/cpdstandard









Coffee and pi 20.3.2019 Core Maths

Continuing Professional
Development
Standard

National Centre
for Excellence in the
Teaching of Mathematics

Lesley Swarbrick AMSP associate





Aims

- To look at the AQA pre-release material
- To consider the mixed-ability classroom





Use this if you have several sections in your presentation

AQA pre-release material





Aim

 To create some questions based on the prerelease material which can be:

Used with students

Shared with other teachers

2019 pe-release material

Paper 1 - Income Tax and National Insurance
 2018-2019 and Great Britain's motorways
 Papers 2A/2B/2C - PISA





Income Tax and National Insurance 2016-2017

Paper 1 question 8





Use Income Tax and National Insurance 2016 – 2017 and National Minimum Wage from the preliminary material.

At the start of 2016 Samir is 24 years old and works 40 hours each week. He is paid the National Minimum Wage.

He pays tax and National Insurance but has no other deductions.

His net pay after tax and National Insurance are deducted is £243.15 per week.

The government states,

"New National Living Wage gives you an extra 50p per hour in your pocket."

Samir says,

"When I am 25 the increase in **my** net pay will be less than 35p per hour." Is he correct?

You **must** show your working.

[6 marks]





Let's consider last year's materials.

Here are some example questions based on the preliminary materials.





Now look at the actual exam questions.

How do they compare?





We will create some questions to share:

- Income Tax and National Insurance 2018-2019
- Great Britain's motorways
- PISA





A helpful resource:

Catherine van Saarlos (AMSP)

https://padlet.com/catherine_vansaarloos/hxgpdye mvhit





Examples

Phoenix gets £16 500 a year and did not take a student loan.

How much tax does Phoenix pay?

How much national insurance does Phoenix pay?

Sam gets paid an annual salary of £40 000 and took out a student loan in 2015. What is Sam's monthly take-home pay?

Charlie earns an annual salary of £65 200 and took out a student loan in 2009. What is Charlie's monthly take-home pay?





If you share a question with Catherine then you will be emailed with questions sent in by others.





Another helpful resource:

Nick McIvor

Income Tax Question Generator (thanks to Jeff Hughes)







Break time

Begin again at 5.15pm





Use this if you have several sections in your presentation

The mixed-ability classroom





How to handle a mixed ability classroom

- Talk about the setup at your school.
- What is your experience of teaching Core Maths in a mixed ability environment?
- Do you have any resources which work well?





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Contact the AMSP

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