

NCFE Maths News Guidance**Article from the September 2021 NCFE Maths News:**

Covid: Plan B would be triggered by NHS pressure, Sajid Javid says

Narrative:

Health Secretary Sajid Javid has said that the way the NHS is coping with Covid will determine whether further measures are put in place to protect the public from Covid. The scientific Advisory Group for Emergencies (SAGE) said there was "potential for another large wave of hospitalisations". As well as encouraging working from home, they suggested "light-touch measures" such as clear messaging telling people to "act cautiously", more widespread testing, a return to requiring all contacts of cases to isolate, and more mask-wearing.

Useful online links:

Original article: <https://www.bbc.co.uk/news/uk-58566235>

<https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-vaccinations/>

[COVID-19 monthly announced vaccinations 09 September 2021](https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-vaccinations/)

<https://www.statista.com/statistics/281174/uk-population-by-age/>

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration>

<https://www.thesun.co.uk/topic/coronavirus/>

https://en.wikipedia.org/wiki/COVID-19_vaccine

<https://www.bbc.co.uk/news/health-55274833>

<https://www.wired.co.uk/article/covid-vaccine-ceiling-uk>

Curriculum Link:

Understanding data

Scenario:

Tiana is leading an advertising campaign to encourage Covid vaccine uptake. She has a limited budget so will need to ensure the adverts are targeted towards the demographic with the lowest uptake and publicised in regions with the lowest uptake.

Question:

Choose reliable data sources to produce a visual representation of the percentages of vaccine uptake by age, sex, ethnicity, and region to give Tiana an accurate view of how and where her adverts should be targeted. Explain the rationale for your choice of data source and visual representation.

Article from the September 2021 NCFE Maths News:

Climate Protesters Block Access to M25 Causing Rush Hour Delays

Narrative:

Insulate Britain stopped traffic on the M25 between junction 8 and 9 and at junction 23, on September 15th after causing major disruption on the motorway earlier in the week. This caused delays of 30 minutes above normal travel time and around 7 miles of congestion back to junction 12. Motorists vented their fury on Twitter while Insulate Britain demanded that the Government act on climate change.

Useful online links:

Original article: <https://metro.co.uk/2021/09/15/m25-blocked-by-insulate-britain-climate-protesters-again-15260705/>

<https://www.google.com/maps>

<https://www.bing.com/maps>

Curriculum Link:

Understanding commerce

Scenario:

Justin runs a company in Crawley delivering flowers to businesses in and around London. His driver regularly uses the M23 and M25 to get into London. It is important that the driver takes the fastest route possible so that the flowers remain fresh when they arrive and they can make as many deliveries as possible.

Question:

Justin needs to make deliveries to Chelsea and is planning routes for his driver to take, the options are:

- Crawley, Junction 9 of M25, New Malden, Colliers Wood, Clapham, Battersea, Chelsea
- Crawley, Junction 9 of M25, New Malden, Roehampton, Wandsworth, Battersea, Chelsea
- Crawley, Netherne on the Hill, Coulsdon, Mitcham, Wandsworth, Battersea, Chelsea
- Crawley, Netherne on the Hill, Coulsdon, Streatham, Clapham, Battersea, Chelsea

Using a suitable method calculate the fastest route available and the time of the route using approximate times for traffic conditions setting off at 6:30am from Crawley. What would be the impact of a 30-minute hold up between junctions 8 and 9 of the M25?

Article from the September 2021 NCFE Maths News:

Peter Shilton: England men's most-capped footballer urges end to gambling advertising in football

Narrative:

Peter Shilton joined with other campaigners to hand in a petition to Downing Street to call for an end to gambling companies' sponsorship of football shirts. Kindred Group whose betting brands include 32Red and Unibet cited studies that show there is no causal link between advertising and the development of problem gambling.

Useful online links:

Original article: <https://www.skysports.com/football/news/11095/12408267/peter-shilton-england-mens-most-capped-footballer-urges-end-to-gambling-advertising-in-football>

https://en.wikipedia.org/wiki/List_of_Premier_League_clubs

<https://www.bbc.co.uk/sport/football/teams>

<https://www.teamtalk.com/teams-list>

Curriculum Link:

Understanding chance

Scenario:

Maci supports a Premier League team and attends every home match and sometimes places a £5 bet based on the starting line-up of the team. They have a favourite player and have been tracking the probability of their team winning depending on whether he is playing from the start of the match. Last season their favourite footballer played in 30 of 38 matches from the start of the match. Of the games where their favourite footballer played from start, the team won 9 matches and drew 6, when he didn't play from the start, they won 1 match and drew 3.

Question:

Use an appropriate method to recommend how Maci might bet in the next match based upon whether their favourite footballer is in the starting line-up.