

'Cars Maths in Motion' at Pleckgate High School

Working with some Year 4 Pupils

Part of my role at Pleckgate is to work with some of the pupils in our feeder Primary Schools. I worked the previous academic year with one of them, using 'Cars Maths in Motion'. I visited them every 2 weeks. However, I have found the last 6 months of this school year far better because I have been able to visit the same pupils every week. There certainly seemed more continuity for them (and me!), and even though they were younger this year, I think we have all got more from it.

I started with finding out what they knew about angles. The Year 4s knew the names and one boy knew that 180 degrees was half a turn etc. None knew how to measure them. Using protractors, we discussed the 2 scales and the need to measure from zero. A number of them would read the wrong number but realised why when they were told to check whether the angle was acute, obtuse or reflex. The slogan was "does the answer make sense?"

Literacy - I used the word searches with them from the Teacher Resources support CD ROM. They all found most of the maths words quite easy, but struggled with the 'strange' names of the racing drivers.

We discussed percentages and some knew it meant out of 100. We practised finding % of numbers on the calculator by multiplying and then dividing by 100. Most were very happy to move onto using the multiplier. We discussed decimal points and place value. Many seemed to have used decimal points before and this work really did reinforce what they had learned previously. It was a really good opportunity to engage those pupils who had not done this work previously.

Working out the scale on the circuit diagrams was usually a bit more problematic, perhaps because photocopying changes size slightly. We talked through how it is so much on the map representing so much in real life and then we multiplied or divided accordingly. Although we talked through this on each new circuit, I usually ended up telling them that for every 1 cm, they should multiply by whatever the scale factor was. Some of them did understand this by the time my work with them had finished.

They were extremely good at classifying each feature into the 7 category options on the circuit diagrams, once all the measuring was done.

The software also helped to encourage the use and application of IT. Some of them had very good computer skills and would find out how to do something, such as altering the pit stops etc., before I had fathomed it out!!

Working out race distance and fuel needed etc. was done as a group exercise. There were a couple of the Year 4 boys who were very competent at this.

The pupils always enjoyed the races, although these would go on quite a while for them. Their favourite was the practice laps. Some would sort out any problems with the practice lap themselves, but others who crashed would struggle to find where they were going wrong. This was usually because they hadn't changed the features from the last circuit or worked out their maximum safe speed correctly. Check and double check!

Overall I feel all of the pupils gained some of the teaching points, if not all, from using the programme. They never seemed bored, apart from the very odd occasion, and stayed motivated and engaged for long periods at a time. The retention levels were really high and I am in no doubt that they will be capable of running this software next year without too much further teacher input.

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