## summer lee

## **Summerlee Maths Trail p2-3 Teachers Notes**

The Maths trail can be completed in small groups or as a class. All you should need is a print off and a pencil. (A clip board might be useful but not necessary.)

There's a measuring scale on the side of the trail that can be used for some of the questions. Why not use a step watch or pedometer to measure your steps as you go and count it towards the daily mile?

Below are the answers to each question as well as suggestions of additional questions or activities you can pose to the children as you work your way around.

- QU1. Estimate the length of Gibby the steam engine by measuring with your feet.

  Do you think this is an accurate way to measure? (Estimating / measuring/ problem solving)

  Gibby the steam engine is 6m 48 cm in length. When we measured the exhibit with our feet it was a count of 23, but we had size 10 shoes, the kid's feet will be much smaller so their answers will be much higher.
- QU2. Look closely at the wall of workers display- How many workers can you see in the photos? Is it greater than or less than 100? (greater than/less than)

  It's more than 100- jobs back then were very labour intensive because there were not as many machines or even computers as we have today.



Ask the children if they can find any children in the pictures or count how many are in a specific photo.

QU3. Visit the Co-operative shop- In the olden days you did not need to pay for your shopping at the time, but you could be invoiced (billed) once a month. How much will your bill be if you buy an iron and one tin of Bisto? Use the price list below to calculate the amount. (money addition)

£1.00 + 50p = £1.50

Bisto 50p Oxo cubes 20p Iron £1.00 Socks 20p



Some of the items in the window have have "old money" signs on them which might be an interesting discussion point around decimalisation.

Move outside to answer the rest of the questions.





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QU4: Find this large rail steam crane near the main entrance and find out what year it was made? (dates) It was built in 1900



Do any other exhibits have dates, perhaps on the signage or on the machines themsleves?

QU5: Can you find the Summerlee post box near to the tram stop? What time is the post collected on a Sunday? (time)



You could ask the children some questions about other collection times.

QU6: Look at the main café entrance -How many windows are there? What shapes are they? (shapes and counting)

There are 11 windows in total. Most of the windows are rectangular but there is also a circular one at the very top.

QU7: There are a lot of machines in the engineering pavilion. Use the ruler on your trail sheet to measure some of the machines- which one is longest / tallest/ widest? (measuring)

There will of course be lots of different answers to this question depending on which machine/ part they choose to measure.

QU8: Explore inside the woodshed and see how many 2D or 3D shapes you can find. Can you name or draw the shapes in the space provided?



There are lots of opportunities in the woodshed and engineering pavilion to talk about shapes & symmetry.

QU9: At the miner's row cottages can you work out which houses in the street have an odd number? (odds & evens) (9/11/13/15)

If you stand at the tram stop the cottages on the right will all have ODD numbers displayed outside.



Why not visit the gardens behind the cottages and hunt for patterns and shapes in nature or on the paths?

QU10: Finally, don't forget to visit the canal and measure your height next to the canal pony.

