East Renfrewshire Council: Education Department
Practitioner Moderation Template

School Code	R
Practitioner Code	R6
Curriculum Area(s)	Numeracy and Mathematics / Technologies
Level	Second
Stage(s)	Primary 6
Specific subject (if applicable)	Data Analysis

Experiences and Outcomes:

Having discussed the variety of ways and range of media used to present data, I can interpret and draw conclusions from the information displayed, recognising that the presentation may be misleading.
MNU 2-20a

As I extend and enhance my knowledge of features of various types of software, including those which help find, organise, manage and access information, I can apply what I learn in different situations.
TCH 2-03a

Learning Intentions:

- To discuss the variety of ways data can be organised.

- To present the data in an appropriate way.

- To use a software programme.

- To interpret the information from a graph.

Success Criteria:

- I can discuss different ways of organising information.

- I can find relevant data from the internet.
- I can present my information in a table.
- I can present my information in a graph.

- I can create a graph to display my information using excel.
- I can use excel to work out calculations.

- I can explain my graph to my audience.
- I can identify trends in the data.
- I can draw conclusions from my graph.
- I can give an example of how the data presented may be misleading.

Briefly outline the context and range of quality learning experiences that have been provided making reference to the chosen design principles.

Context
The pupils were learning about data handling in Numeracy and Mathematics which coincided with 'Financial Education Week'. The children chose the shops and the products (allowing for Personalisation and Choice) to use for their data, thinking about the shops they go to for food and the products they usually buy (Relevance).

Challenge
Some children chose to create further Bar Graphs on Excel to break down the data further, this allowed for great depth of learning.

Differentiation
The children were supported through teacher and peer support. Some children had the steps written down for them to follow when creating a Bar Graph. Some children worked in a mixed ability group.

Enjoyment
The children enjoyed searching for the products and creating the Bar Graphs and discussing what they noticed about the data.

Lesson 1:
Pupils discussed in small groups the different way data can be organised. We looked at a variety of examples of data being organised in different ways. Children noted down some examples of the ways data can be organised. In small groups the children decided what 5 shops and what 5 products they would research. They searched on the internet and recorded their results in a table in an Excel document. For consistency they made sure they used the same brand of product in each shop. Some children worked with a partner in a mixed ability group. They then used the function button to calculate the total price of the products in each shop. Some children were able to show others how to do it.

Lesson 2:
Recap about previous lesson and how the total was calculated by using the function button on Excel. The children engaged in a brief discussion of their results so far, for example what shop was most expensive etc. Pupils were taught how to use Excel to create a bar graph. Children used excel to create a bar graph with the data they had collected. Some children created further graphs with more specific information.

Lesson 3:
The children analysed and interpreted the results from their graphs and the data they had collected. They discussed trends and differences, the way in which the scale of a graph can influence the results and may make them less reliable. They also discussed other ways in which data may be misleading before coming to conclusions about the data they collected. They noted their findings and shared with their group by means of discussion.

Say:
- Discussing different ways data can be organise.
- Discussing the data in the bar graph – trends, conclusions etc.
- Oral teacher feedback throughout.
- Self / Peer Assessment and discussion.

Write:
- Write down different ways that data can be organised / displayed.
- Writing down trends, conclusions and ways the data can be misleading.
- Self and peer assessment.

Do:
- Contribute to discussions about the ways to organise data.
- Contribute to discussions about the bar graphs to analyse the data.
- Search for prices using the internet.
- Create a table and bar chart on excel.

Briefly outline the oral/written feedback given to the pupil on progress and next steps, referring to the learning intention and success criteria.

Teacher feedback – verbal feedback throughout and written in jotter.
"You created a table to display the information you found from the shop websites. I like how you colour coded the products and the shops – it made your table very clear. You were able to create a bar graph of all your information and you were even able to go on and create a table with just the total shop prices. Next time you are making a graph, please make sure you include correct labels."
Peer feedback – verbal feedback throughout and written at the end of the group discussion as two stars and a wish.
"You presented your data in a good way in the bar graph. You were able to talk about trends and things you notice and conclusions about most expensive and least expensive. Maybe you could have colour coded the shops to match the prices."
The pupils self-assessed orally throughout and traffic lighted their work.

Pupil Voice:
What have you learned?
I've learned how to read off different charts and graphs and how bar graphs work and how to make them using excel. I can also talk about them.

How did you learn?
We went on the internet and checked the shops. We put it all together in our bar graph, we were shown how to do this. When I wasn't sure I asked my friend or my teacher, especially when adding the prices together. We looked at other bar graphs too and the ways other information was shown. We discussed the trends and things we notice. I wrote down things I noticed from the bar graph.

What skills have you developed?
The skills I have developed are talking and listening skills, searching skills on the internet and websites. How to make graphs and organising the information we found. How to add up the total from a table on excel and analysing skills because we talked about our graphs.

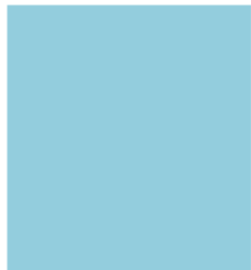Did the learner successfully attain the outcomes?   YES

Learner Evidence

Learning Intentions and Success Criteria
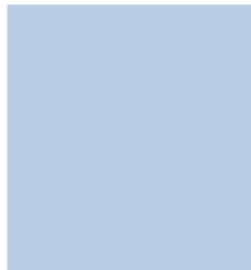
Pupil/Teacher voice

Experiences and Outcomes

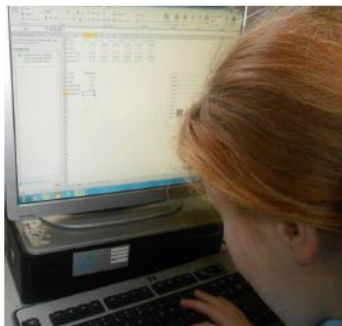| Guidance/Information |
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Practitioner Moderation Template

Learner Evidence

Tasks: Pupils were split into small groups. They were asked to discuss the different way data can be organised and presented. They were asked to note down some of their examples on a whiteboard and to present their findings to the rest of the class.

Having discussed the variety of ways and range of media used to present data, I can interpret and draw conclusions from the information displayed, recognising that the presentation may be misleading.
MNU 2-20a

- Learning Intention - To discuss the variety of ways data can be organised.

Throughout the task the pupil took part in the discussion with the group, offering suggestions. The pupil referred to an example of how data was presented in a tally chart when we were decided on what to do for our Christmas Enterprise. The pupil showed excellent communication skills and took the lead to record some examples on a whiteboard during the discussion.

- Success Criteria - I can discuss different ways of organising information.

- Learning Intention - To present the data in an appropriate way.

Pupil Voice:
"I searched on each shops website to look for the prices. I had to make sure I looked at the same make of product on each website for example 2l of whole cravendale milk in each shop. I wrote the prices that I found on the websites into a table on the excel document. I colour coded my chart so that I knew the names of the products were blue and the shops were red. "

Success Criteria:
- I can find relevant data from the internet.
- I can present my information in a table.

- Learning Intention - To present the data in an appropriate way.

The children have had some experience using excel previously. Some children could remember how to create a table and bar graph. We revised how to do it as a class. The children used their information from the table to create a bar graph.

- Success Criteria: I can present my information in a graph.
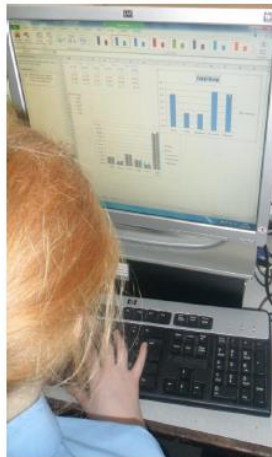
As I **extend and enhance my knowledge of features of various types of software**, including those which help find, organise, manage and access information, I can apply what I learn in different situations. TCH 2-03a

PUPIL VOICE
"I had to highlight the chart to make it blue before I could make it into a bar graph."

Learning Intention: To use a software programme.

Success Criteria:
- I can create a graph to display my information using excel.
- I can use excel to work out calculations.

Pupil Voice:
"I had to work out the total of each shop. I used the function button to write in the names of each of the cells I wanted to add up. For example C3+D3."

The pupils were shown how to do this on the board. We discussed how important it was to make sure no cells were missed out.

The pupil required support to complete the first three total shops using the function button and was able to do the last two on their own. The pupil was then able to put her results of the shops and the total shops into a separate table. Oral feedback was given throughout this process.

Success Criteria:
- I can create a graph to display my information using excel.

Teacher Feedback:
You created a table to display the information you found from the shop websites. I like how you colour coded the products and the shops – it made your table very clear. You were able to create a bar graph of all your information and you were even able to go on and create a table with just the total shop prices. Next time you are making a graph, please make sure you include correct labels.

Price

Product
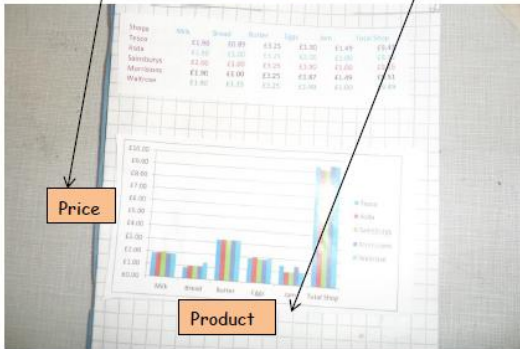
The graphs were printed and glued into the pupil's jotter so they could access them whilst analysing the results.

Learning Intention: To interpret the information from a graph.

Having discussed the variety of ways and range of media used to present data, **I can interpret and draw conclusions from the information displayed, recognising that the presentation may be misleading.**
MNU 2-20a

Success Criteria:
- I can explain my graph to my audience.
- I can identify trends in the data.
- I can draw conclusions from my graph.
- I can give an example of how the data presented may be misleading.

The pupil was given the chance to present the bar graphs and tables that were now glued into their jotter in small groups. They had to talk through their learning and the steps they took to present their data like this. This gave them the opportunity to voice anything they noticed about the information before discussing some trends in the data and coming to some conclusions about the shops and products. They then noted this down in their jotters. The pupils then gave Two Stars and a Wish feedback to their peers based on the Success Criteria.

Peer feedback:

⭐ You presented your data in a good way in the bar graph.

⭐ You were able to talk about trends and things you notice and conclusions about most expensive and least expensive.

Maybe you could have colour coded the shops to match the prices.