How much paper?

TASC

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Final Version

Overview

In this document

This mathematics task is a TASC resource (Thinking Actively in a Social Context). It is suitable for upper KS2 and lower KS3

Points to consider when using this resource

Pupils should work collaboratively.
Pupils will need to see a ream of A4 paper

How much paper?

Gather and organise: What do we know about how A4 paper is packaged and sold? How many sheets do we think are in a pack? How many packs do we think are ordered for use in school each year? What different purposes is it used for? Should we just use it endlessly without considering whether we could cut back on how much we buy?	
Identify – What is the task? Can we find out approximately how much paper we use in our class in one week? (This could be given a purpose in terms of needing to make predictions about how much paper needs to be ordered – or how much of the budget needs to be allocated – over the next year. It could be to find out if economies can be made.) (This task could be adjusted to find out the average use per class per week. This would then require data collection from admin, followed by calculations. Or it could be about thinking about how much we use in a typical week. Success criteria will be set appropriately.)	
Generate: How could we work this out? What do we need to find out in terms of how paper is sold and how many sheets are in a packet etc? What processes could we consider to estimate how much we use in a week? Should we think of different lessons? Different days? Different task? Would making lists help us? Generate as many possible ideas/processes as you can think of to give you some different options.	

Decide: Consider the possibilities generated and choose which option you will trial first. Justify why you think this is the best option and why it will give you the closest estimate. Plan clearly what needs to be done and what you need to do/find out in order to proceed.	Which is the best idea?
Implement: Work as a team through your chosen process. Ensure you record your findings clearly so that you can prove that your estimate is as accurate as possible. If your findings are to be used for future ordering or budgeting, they need to be as accurate as possible.	Let's do it!
Evaluate: Have you come up with a solution that you think is as accurate as possible? Do you need to decide upon a range as your answer? What was problematic about the process? Was there any mathematics that you found problematic? What type of calculations did you need to do? Do you need more practice at any of the mathematics in order to get better at it? Do you think you chose the best possible way to solve the problem, or should you have done anything differently? If your solution is used to budget for and order paper over the next year, are you confident that there will be enough, without having too much left over?	How well did I do?
Communicate: Prove to another group/pair that your solution is as accurate as possible and is based on accurate research. Convince someone who is responsible for ordering and budgeting that they should use your solution to inform their decisions (role play). Compare your solution with others? Does this make you re-think your own solution?	Let's tell someone!

What have we learned?

Did we learn/consolidate any new mathematical processes and skills in order to solve this? What did we find out about how paper is packaged and sold? Were we surprised at our findings? Could we apply this process to other materials we use in school in order to evaluate our spending/use of materials? Did we work well as a team to solve this? Was it problematic – and did we persevere or get easily frustrated? This is a problem that doesn't have a correct solution, but has an outcome that is an approximation that needs to be justified and explained. Was this problematic for us? When others questioned our reasoning and justification, were we convinced enough ourselves to continue with our arguments?

What have I learned?

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