



UKEN_Class_MothersDay_NoS

Teacher Education Design Principle + code:	3. Teacher education should advance teachers' understandings about the nature of science and how scientists work, confronting stereotypical images of science and scientists. TE: NoS
Specific Teacher Outcome(s):	3.3 Teachers should be able to use foster the processes of imagination, reflection and consideration of alternative ideas in supporting children's understanding of scientific ideas and procedures and development of creativity.
Factors linked with:	P: RandR
Type of material (image – interview (int) – classroom extract (class):	Classroom extract, group interview, photographs
Originating from:	
Country report :	D4.3 UK (England)
Case:	Case 2
Episode:	Mothers' Day
Teacher:	Louise
Age Group:	7-8
Selected episode present in D4.4 Appendix	No





The teacher wants the children to think about the problem realistically and not just as a disconnected mathematical problem.

The cake group had to plan enough cake for 20 people for a Mother's Day party. Their questions were:

- What ingredients will we need to buy from the super market?
- How much will we need to buy?
- Is there a way we can find out how much it will cost?

Researcher - Why did you decide three cakes?

Child - Because if there's going to be 20 people we might have two but if they're going to want seconds we might need three.

Researcher – Ah, so if you're having cake do you sometimes like to have seconds?

Child – Yes, I love having seconds.

Child - I always have a bit of both if I love both.

Louise - What's the latest time you could start making the cakes?

Child - We know the preparation time for 1 cake but we're doing 3.

They talked about the variables – e.g. whether it was 3 people making 1 cake each or 1 person making all 3 cakes. Then, whether the one person would make the 3 cakes in turn or in 1 big batch and whether they would all fit in the oven at the same time.

Louise - It depends on how many cakes fit in the oven. In ours we can only fit about one.

Child – I've got a giant oven. It's as big as these two tables.

Louise – That's fantastic! You must do a lot... Your mum doesn't do cooking.

Child – My dad does it. My dad always cooks.

Researcher - We'll bake the cakes at your house then.

The children working on the cakes reported back to the rest of the class.

Child - We were finding the ingredients for a cake. We had to see how many cakes we needed because there were 20 people coming.

Louise - What was the discussion we had at the end there?

Child - How long it would take to make it and bake them.

Louise – Were there any problems with that? What were the things we had to think about?

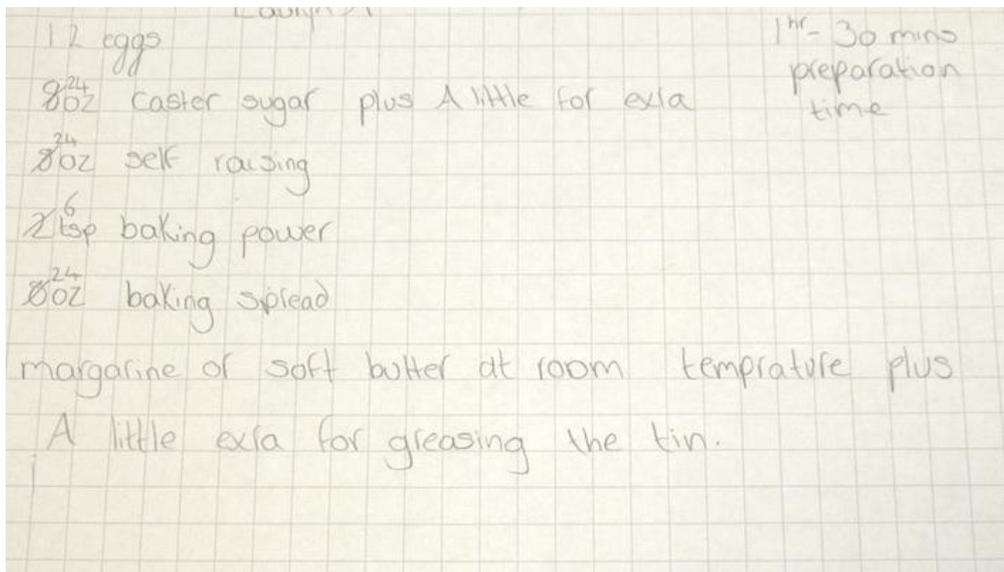
Child – Whether we would make them all at once or do them one after the other.

Louise - When you got the recipe what was the first thing you had to look for?

Child - The ingredients.

Louise - So it was a bit like a word problem.





Child's recording of what they need for three cakes.

Child - That's how much eggs and stuff we need.

Researcher - What sort of maths did you have to do when you were thinking about your cake?

Child - We had to double and then...

Child - We had to times it by three. Whatever number we had to times it by three.

Researcher - Was it easy or hard?

Child - It was a bit easy for me but I think L and H found it a bit hard.

Researcher - Did you do the tripling on the grams or the ounces or both?

Child - We did it on the ounces. Mostly.

Researcher - They're easier numbers aren't they? Because three 8s is much easier than three 225s.

Child - 225 would be 600..., 7 maybe... somewhere around seven or eight hundred



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