

Lesson Account 31 – Finding all Factors of Numbers

Name	Organisation	Age/ability range
Lynne McClure	Lynne McClure Consultancy	Primary 9-10 mixed ability

How was the session/task introduced?

Write some multiplication calculations so the answer is 120. Children recorded a couple on the board. Are there any more? How many more?

How was the session/task sustained?

Children worked in pairs to generate more – encouraged to look at each others. Children were asked to justify and agree inclusion of new solutions on board ‘Pupils were asked what else do you think we could find out?’ Children realised there are a limited number of two factor calculations – children suggested move from 2 factors to 3, then 4. Shared ways of working, recorded results on separate pieces of paper stuck to board and rearranged into groups.

How was the session/task concluded?

What were the critical moments?

Realising duplicates i.e. commutativity
Not needing to use 1 as a factor.
Discovered longest product was using prime numbers, in any order.

What mathematics was learnt? (on plan and off plan) and what is the evidence of learning?

Children realised how they could combine / break down / rearrange –commutativity etc.
Children realised that it didn’t matter where you started, you always got the same answer when reduced to prime factors.

How was that mathematics learnt?

Learning from each others answers / mistakes. Teacher played a guiding rather than a didactic role.

Other memorable outcomes

So excited – “that’s cool” – doesn’t matter what you do first, it always ends up the same. Can I do a really big one?

Resources