

Appendix 2 Observation Record A: 15th June 2011

Teacher: Ann Year group: Y1 Number in class: 22 Highlighted text: data extracted for analysis and outcomes

Context:

The class told that they were going to explore the jungle (their topic area this week) and they had a problem to solve – they needed to decide what items from a selection would be best to take to the jungle and which bags or cases to pack them in. They need to decide why they made their decisions based on size, weight or capacity. Children put into groups of 4-6 and Ann worked with a group of 6, while another teacher and two TAs worked with the others.

Notes:	Ann sat with the 6 children and showed them the different types of bags available, including rucksacks and plastic bags, and the types of equipment – food containers, waterproofs, binoculars etc. They discussed weight of things and the size of bags. <i>How are you going to make a decision? What is different between the bags? How else can we find out the weight?</i>	Continued discussing weight of things and the size of bags, then children worked in pairs, gathering items and bags. <i>How can you measure size?</i> <i>How is it going to help you decide?</i> <i>How heavy is it?</i> <i>What other measures do you know? Capacity, size...</i>	Children working in pairs trying to fit items in bags – Ann helping the pairs to make decisions. <i>Which container would you definitely <u>not</u> take?</i> <i>Have you compared your bags?</i> Children started to record lengths of bags on whiteboards.	Pairs continued working on this – recorded dimensions and weights on personal whiteboards. <i>What did you choose and why?</i> <i>Why did you choose that one?</i> Children brought together on mat to discuss findings.	Compared weight and lengths of objects/bags. Discussed criteria and reasons for choosing bags. <i>Which would be easiest to carry?</i>
Time:	5 mins	10 mins	15 mins	20 mins	25 mins

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BMK

a) Qualifications					
b) Beliefs	Practical approach, children actively involved using real objects. Discovery learning, with children exploring	Ann role as a prompt, asking questions to move on their thinking. She allows them to discover things for themselves	Stands back from pairs, lets them make mistakes and work out their own ways of moving forward.	Little support given in how to record or what to record on whiteboards – recording treated as a prompt for the children to use when explaining their results. Mark making?	
c) Confidence	Quiet, confident manner – raising questions for debate and managing answers to move the debate on.		A little lacking in confidence when using spring balances – explained not used them before and was unwilling to talk about their use with the children – just let them explore. They were confused by the calibrations.		

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KTM

a) Connections	Scale and number line not reinforced	Capacity mentioned – not built upon. Not connecting to other areas of the curriculum or other areas of maths.	Opportunity to use number line to show scale missed – link to positional aspect of number.		A child said it would be important for the bag to float on water – this was ignored, running out of time perhaps
b) Progression		Vocabulary not clear for children – used the word 'capacity', but not explained and didn't allow children to explain their understanding	Spring balances a good idea to visualize and compare weights of bags. Not a strong focus on this though		Opportunity missed to compare and order bags - left the task feeling a little purposeless
c) Representation	Using spring balance for weighing and real items for filling bags	Used tape measure to measure dimensions of bag. Inches and cm interchanged so some confusion.	Spring balances a problem as different scales – could have used a number line to represent the scale.		

KLM

a) Concepts		Children making common error with tape measure – not putting end point at start, Ann showed how to measure from the end mark, cm/inches could be an issue – not picked up	Need to clarify different strengths of each spring balance – not confident with the principle		Accuracy and appropriate vocabulary not reinforced – size, weight, length, capacity all used and children not clear on concepts. Not picked up by Ann.
b) Interaction	Open questions – how, why... How are you going to find out the heaviest?	Appropriate open questions to direct them and keep them on task – How can you measure size?	One pair of children recorded lengths on whiteboards. Numbers just listed in a column. Ann asked: How do you know which is which?	Ann discussed with pair of children how they would record dimensions. They had measured using cm and inches – Allowed child	Allowed time for children to show their bags and say why they had chosen each one. Little disagreement with each one, they were all

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		<i>How is it going to help you decide?</i>	Allowing children to think and decide on how to make it work.	to talk and then explained that they needed to measure in same units – appropriate teaching point well made	happy with the ones they had packed up. Lost a little of the purpose with this.
c) Response	Spring balance wouldn't work – quickly showed alternative by balancing approximate weights in each hand - comparison	Dealt quickly with issue of cm and inches on tape – told them to choose one and measure with that, but don't use both as you can't compare inches/cm		Children concerned they had used inches, dealt with calmly : <i>You used inches – as long as you can compare that's fine.</i>	