

UKEN_Class_CountingMinibeasts_PractInvest

Teacher Education Design Principle + code:	2. Teacher education should provide teachers with skills and competences to carry out practical investigations of science and mathematics in the classroom. TE: PractInvest
Specific Teacher Outcome(s):	2.1 Teachers should be able to instigate and involve children in the design and conduct of practical investigations of science and mathematics in the classroom, as such activities can contribute to the development of children’s creativity. 2.2 Teachers should have a more detailed knowledge about the nature of inquiry and investigations in early years science and mathematics in order to be able to recognise the opportunities they offer both for creative learning and developing children’s creativity.
Factors linked with:	LA: Plan; LA: Comm; P: Express; P: Scaff
Type of material (image – interview (int) – classroom extract (class):	Classroom extract (Class)
Originating from:	
Country report :	D4.3 UK (England)
Case:	Case 12
Episode:	Counting Minibeasts
Teacher:	Lisa
Age Group:	4-5
Selected episode present in D4.4 Appendix	Yes

The lesson from which this extract is taken aimed to provide varied opportunities for children to devise strategies for counting objects and to encourage them to communicate results in their own ways. The selected episode is drawn from a group of three children, namely Aahil, Desiree and Eleesha, who were asked to sort, count and record how many plastic minibeasts there were in a bucket.

Children were given opportunities to design their own methods to count the minibeasts



Aahil was overheard saying to his talking partner that *'When you're lining them up ... 'cause you know when you're lining them up, and there's only one ... I don't know where to put it'*. Looking back at the photos of his work, it can be seen that he had four rows of five dragonflies and extra dragonflies were placed on both ends of the fifth row, highlighting Aahil's creative thinking in dealing with remainders.

Children were able to use the carpet space as a blank canvas to show their counting methods and to learn from others



Teacher scaffolding to encourage children to communicate their findings

Through teacher questioning, Ahil was supported in thinking about how to improve the quality of his data recording:

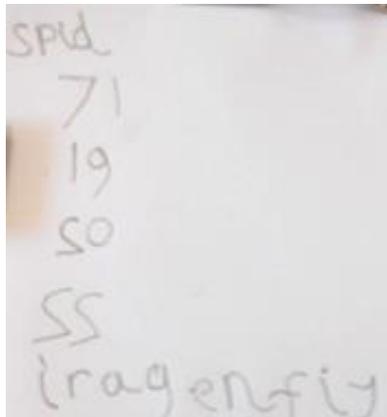
Teacher: Ahil, how do I know which of those numbers are spiders that you counted?

Ahil: 'Cause (sic) we write the numbers.

Teacher: You wrote those numbers? But how do I know those numbers mean spiders, and it doesn't mean the flies.

Ahil: Because if we write flies and spiders then we know it means they fliers and spiders.
(See the left s right image)

Teacher: Fantastic! Fantastic! Thank you!



Another similar example was when the teacher came back to look at Desiree's and Eleesha's work a few minutes later:

Teacher: How many were there?

Pointing at the flies.

Eleesha: 21.

Desiree: I've got another one! 22!

Teacher: So what do you need to do now to remember it's 22?

Eleesha: Write it down.

Drawing a picture of a flies next number 22 (see the above right image).

Teacher: Well done. I think that's a brilliant idea. Desiree, how many of these are there?

Also, pointing at the flies

Desiree: 22.

Drawing a picture of a flies

Teacher: So what do we need to do?

Desiree: Write 22.

Teacher: Well done! I like the way you're doing.



© 2014 INSTITUTE OF EDUCATION, UNIVERSITY OF LONDON

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.



The project CREATIVE LITTLE SCIENTISTS has received funding from the European Union's Seventh Framework Programme (FP7/2007-2013) for research, technological development and demonstration under grant agreement no 289081.