

Teacher Education Design Principle + code:	6. Teacher education should provide pedagogical content knowledge to stimulate inquiry and problem solving in science and mathematics education. TE: IBSE
Specific Teacher Outcome(s):	6.2 Teachers should be able to open up everyday learning activities to allow greater opportunities for inquiry, problem solving and scope for creativity. 6.3 Teachers should be able to recognise the key roles of children’s questioning and existing ideas (both implicit and explicit) of science and mathematics. 6.4 Teachers should be able to foster opportunities for children’s agency and creativity in learning in inquiry and problem solving – in particular the importance of children making their own decisions during inquiry processes, making their own connections between questions, planning and evaluating evidence, and reflecting on outcomes
Factors linked with:	AO:IBSE/PBL AO:Creative
Type of material (image – interview (int) – classroom extract (class):	Image, FNotes
Originating from:	
Country report :	D4.3 – report UK England
Case:	Case 9
Episode:	Syrup
Teacher:	Anita
Age Group:	3-4
Selected episode present in D4.4 Appendix	No

A practitioner-led activity as the start of children's inquiry activity

This activity was, initially, practitioner-led, with the lead practitioner, Anita, modelling what the children would do and demonstrating the outcomes of adding water, vegetable oil and golden syrup into a glass jar. The learning objective centred very much on developing descriptive language such as 'floating' and 'sinking'. Each of the children had their own glass jars and undertook the activities themselves.



Children following the instructions and model of the practitioner, Anita

During this activity, one child, Juliet, began to ask her own questions, such as what might happen if the liquids were stirred. As a result, the enquiry took on a new and unplanned dimension initiated by a child. This provided Anita an opportunity to allow the children to follow a new, unplanned direction of inquiry, from which the learning objectives could be further reinforced.



Juliet extending the activity, stirring and mixing the liquids in the glass jar.



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