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| <b>Teacher Education Design Principle + code:</b>                             | 12. Teacher education should provide knowledge about early child development, the purposes and aims of science and mathematics education, and their place in the early years curriculum.<br><b>TE: EYSciMaths</b>  |
| <b>Specific Teacher Outcome(s):</b>   | 12.1 Teachers should have knowledge of the various purposes and aims of science and mathematics education in compulsory schooling.<br>12.2 Teachers should have knowledge of the prevailing academic rationale for the place of science and mathematics in the early years curriculum. |
| <b>Factors linked with:</b>   | <b>T:Ped</b>   |
| <b>Type of material (image – interview (int) – classroom extract (class):</b> | <b>Teacher interview</b>   |
| <b>Originating from:</b>  |  |
| <b>Country report :</b>   | D4.3 UK (England)  |
| <b>Case:</b>  | Case 4   |
| <b>Episode:</b>   | Buttons  |
| <b>Teacher:</b>   | Fleur  |
| <b>Age Group:</b>   | 3-4  |
| <b>Selected episode present in D4.4 Appendix</b>                              | Yes  |

**Developing child-agency in creativity curriculum**

As part of a topic on changing states of materials children melted chocolate buttons in their hands – the teacher was interviewed afterwards.

- R** So the activity you did today, and the one you did on Tuesday... where did the idea come from?
- F** It mainly came from the bubbles which was the initial experiment, and obviously we've had the snow and ice lately so thought it would be recap for them... it was mainly for recording... with the cameras, although that didn't go as well as expected so we didn't do that today. It came from the idea that something changes but it doesn't change its complete form... so they see something change and think it isn't that any more
- R** I liked the idea of the poem – it gave them a focus away from the melting button, I noticed the button didn't melt in your hand, did the children notice that?
- F** In the morning they did because a little girl's button didn't melt either, she was quite upset until I said mine hadn't melted either
- R** Awww, were you pleased with how it went?
- F** Very, it was something I'd never done before, I'd seen ice used a lot because it's something they can play with, but never thought of chocolate, and they get to eat it
- R** You said you'd made some amendments for this time
- F** Yes, I took the cameras away as they didn't really work, the introduction was the same and the activity, but in the planning I added in some of the words they had used, that I hadn't thought of.... And the scene was different... more things hidden in the ice. Oh and the plenary changed, instead of a story we watched the video so they could see changes rather than listen
- R** So were you assessing?
- F** Not as such...I made notes from their comments, the first time I videoed it and took photos, there were some focussed observations, their comments for us to look at...but it helped me to plan the next one
- R** So your planning is very detailed – does it need to be?
- F** Yes, there is a lot, sometimes I write in shorthand, but one time I wasn't here and it needs to help people who might be covering, they might not know what was in my head
- R** So what about next steps... they have done this for a week now... is that as long as they can sustain a topic
- F** Yes, we will bring it back again after something different, but we are going on to the next stage now, rather than change of state change over time. I wanted to start with something quick, now we are doing growth, from a little seed, it takes much longer to see results. We will do some controlled experiments, growing in the dark, without light and so on, then the control one we will eat the cress in a sandwich.
- R** In terms of from the child, how far is it important that you plan the activities for the child and how far should it be child led?
- F** I think... it depends on the level of the child, some need more help to be able to discover whereas others become aggravated if you keep butting in, or keep saying try this...you have to get the balance right. I planned the first activity from the child's interest but it was partly what I wanted them to do
- R** I noticed that if you sit down the children just come to you...is that normal?

# creative little SCIENTISTS

- F** A few require lots of support so they will follow you, then others get interested, it sparks an interest. At the beginning of the week the children are not that interested the first time, but the second time they come back to it, they get fed up if I keep asking them to come to me so it is better just to let them come when they are ready
- R** So what do you think the children learned from this?
- F** The first time most said it wasn't chocolate anymore but straight away this time they remembered it was still chocolate, they understood just because it looks different it's still the same and that's hard for them to understand. They knew you had to have warmth to make something melt, and I asked the more able how to stop it melting and they knew fridge or freezer, some said go outside and it was very cold so that was a good idea

This activity led on to the children exploring the changing state of ice as part of a free flow activity.



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