

Child Creativity Lab: Creating a 'Pen of the Future' ACE2014

Overview:

- Over the course of the creative lab, 8-12 participants, aged 9 to 11, shall learn about handwriting, technology, and prototyping as a design process. By the end of the session, participants will have worked in small groups and used craft materials to build a prototype of a 'Pen of the Future'.

Step	Time (minutes)	Description of Activity
Before	10-30	<p>Set up of lab. Move tables and chairs, ensure projector works and materials are ready</p> <ul style="list-style-type: none"> (Plasticine, Sheets of A4, A2 and A1 paper/card. Paper in different colours, Coloured pens, crayons, glue, post its. Other craft materials i.e. tissue paper, beads or buttons. Phidget/ Arduino components)
Introduction	5	Children welcomed and aim of the lab explained
1.	10	<p>Brainstorming: What makes good handwriting?</p> <ul style="list-style-type: none"> Children are asked to think about what makes 'good' handwriting. Discussion is led and children's suggestions are written on the board/ post its.
2.	5-10	<p>Evaluating Handwriting Samples (as a group)</p> <ul style="list-style-type: none"> Children are shown samples of handwriting and asked to discuss whether they are good or bad handwriting and why they think that. This is aimed at a group level.
3.	10-20	<p>Evaluating Handwriting Samples (in pairs)</p> <ul style="list-style-type: none"> Children will be asked to work in pairs to analyse further samples. Children will be asked to place the handwriting sample on a large piece of paper and annotate it. The notes should discuss the quality of the handwriting: showing bits are good or bad and which bits they would change and how they would change it.

4.	15-20	<p>Technology and Prototyping</p> <ul style="list-style-type: none"> • The facilitator will address the whole class once again and talk about different digital pens on the market. This begins with off-the-shelf technologies and moves to more unusual pens. Images or video will be shown as the facilitator talks • The facilitator will demonstrate some of these pens and allow the children to use the. Also the pens will display some of the information it can sense i.e. pen location and stuff • Children will be shown different sensors and actuators, and asked to think about these could be used in a pen • The facilitator will then move to the conversation to how products like these are designed and introduce the idea of low fidelity prototyping, which can be done by sketches or other materials.
5.	45-60	<p>Maker Session</p> <ul style="list-style-type: none"> • Ask children to use the materials to create the perfect pen. Ask them to annotate it to explain its features. Ask them to decorate and embellish their ideas • Children should work in pairs . During this time, they will be encouraged by support staff to talk about their features and explain their design.
6.	10-15	<p>Closing</p> <ul style="list-style-type: none"> • Ask children to present their 'Pen of the Future' to the rest of the group • Ask the children if they enjoyed the session (why/why not?) • Thank Children and photograph all the pen models