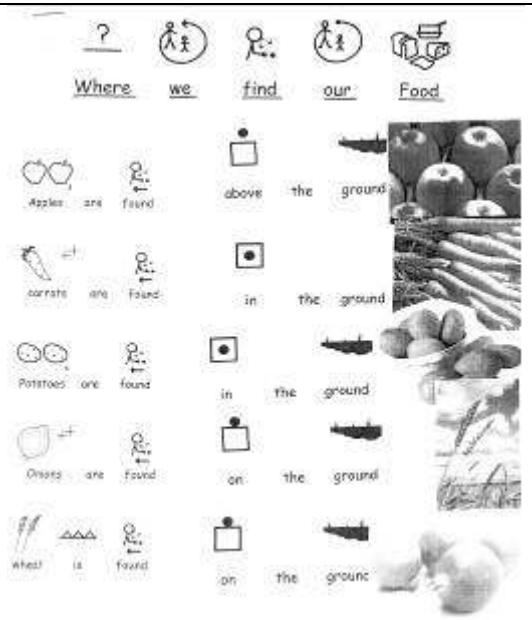
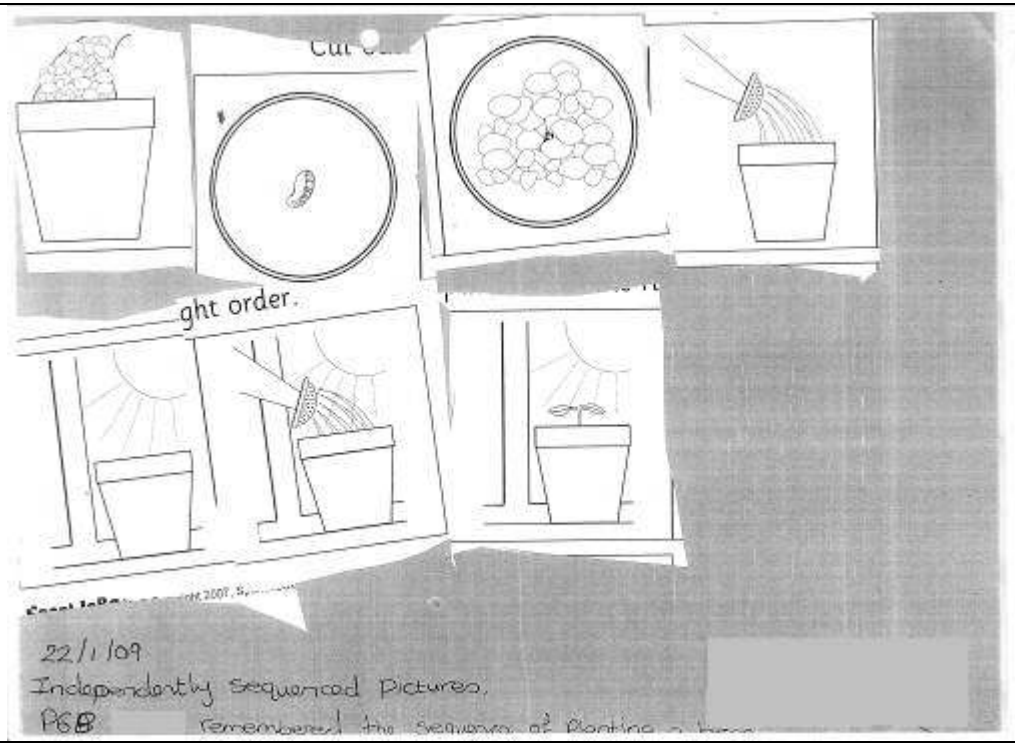
Nottinghamshire Special Schools

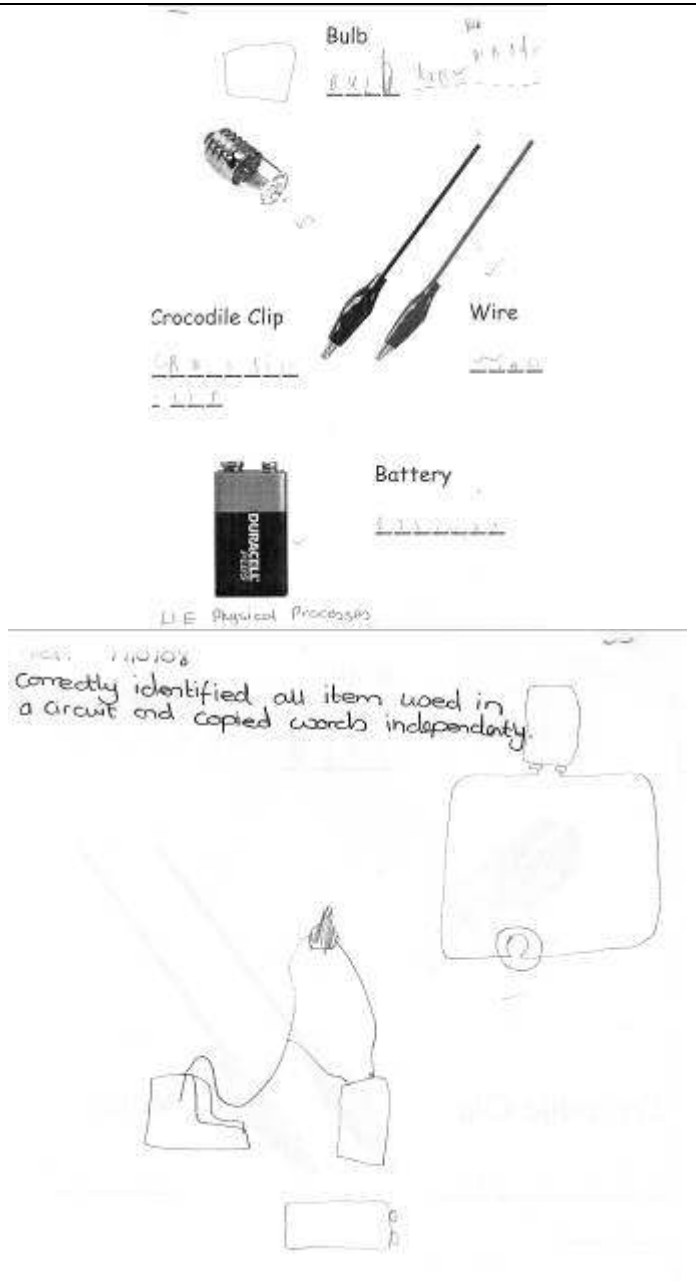
Science moderation portfolio

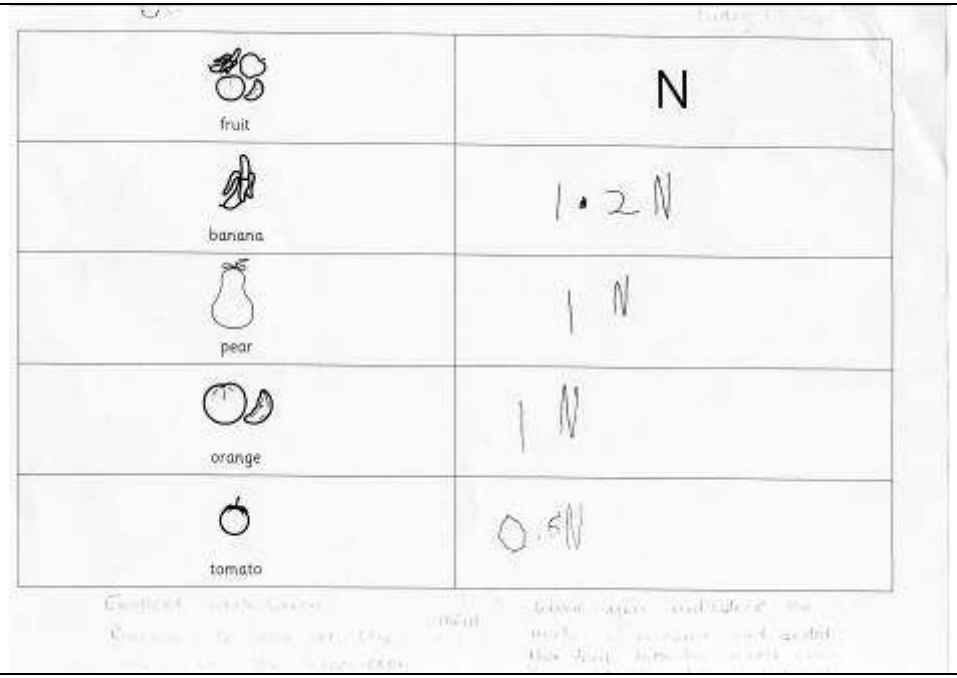
December 2009

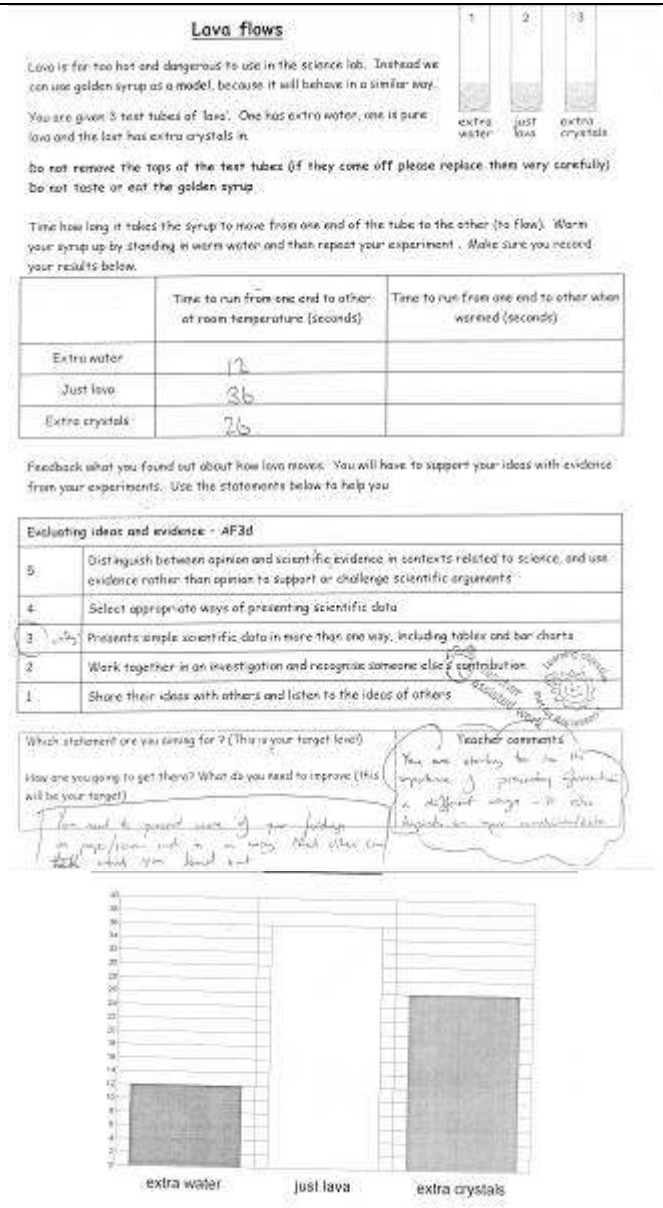
Present	
*******	Beech Hill School
**********	St Giles School
**********	Derrymount School
**********	Bracken Hill School
**********+**********	Carlton Digby School
**********	Newark Orchard School
**********	Ash Lea School
**********	Fountaindale School

	As part of a 1:1 activity, pupil takes items out of a bag one at a time, and will replace when asked. Chooses items made from paper, wood, plastic and metal to make collections.	School assessed level - P5 Moderated level – P5
	Pupil is 15 years old, poor motor skills and works with a question and 2 choices, no speech Pupil chose some correct answers first time and corrected the answer after being shown the demonstration again.	School assessed level – P6(d) Pupil is beginning to associate common items to their symbols and observing real life events and objects. Moderated level – P6 Exceeds criteria for P5 Matches features of living things in the environment and knows where they belong.

	8 year old pupil. Planted a bean following large pictures. After completing the task he was asked to sequence the pictures. Pupil cut out his own pictures and placed them in the correct order	School assessed level – P6(b) Moderated level – P7 Sequencing of pictures. Records of findings show putting pictures of an activity in sequence

	9 year old pupil. Activity completed on board – pictures pointed to and a choice of 2 names given. Pupil was given a list of names and the sheet attached. He was asked to name each item. He independently named the item when asked, found the word on the sheet and copied it into the correct place.	School assessment – L1 Moderated level – L1

	10 year old pupil. Short term memory difficulty, hearing and visually impaired. Pupil had been using a forcemeter and recording results following whole class participation in interactive activities. He was able to say that items would be pulled to the ground where ever in the world they were. Pupil was able to talk about gravity as a force and knew the direction.	School assessed level – 2/3 Moderated level – 2 Not enough evidence made by the child to award/evidence level 3 With more evidence could meet APP Criteria for level 3.



Lava flows

Lava is far too hot and dangerous to use in the science lab. Instead we can use golden syrup as a model, because it will behave in a similar way.

You are given 3 test tubes of 'lava'. One has extra water, one is pure lava and the last has extra crystals in.

Do not remove the tops of the test tubes (if they come off please replace them very carefully)
Do not taste or eat the golden syrup

Time how long it takes the syrup to move from one end of the tube to the other (to flow). Warm your syrup up by standing in warm water and then repeat your experiment. Make sure you record your results below.

	Time to run from one end to other at room temperature (seconds)	Time to run from one end to other when warmed (seconds)
Extra water	12	
Just lava	36	
Extra crystals	26	

Feedback what you found out about how lava moves. You will have to support your ideas with evidence from your experiments. Use the statements below to help you

Evaluating ideas and evidence - AF3d	
5	Distinguish between opinion and scientific evidence in contexts related to science, and use evidence rather than opinion to support or challenge scientific arguments
4	Select appropriate ways of presenting scientific data
3	Presents simple scientific data in more than one way, including tables and bar charts
2	Work together in an investigation and recognise someone else's contribution
1	Share their ideas with others and listen to the ideas of others

Which statement are you aiming for? (This is your target level)

How are you going to get there? What do you need to improve (this will be your target)

Teacher comments

Y8 pupil with ADHD, behavioural and learning difficulties.

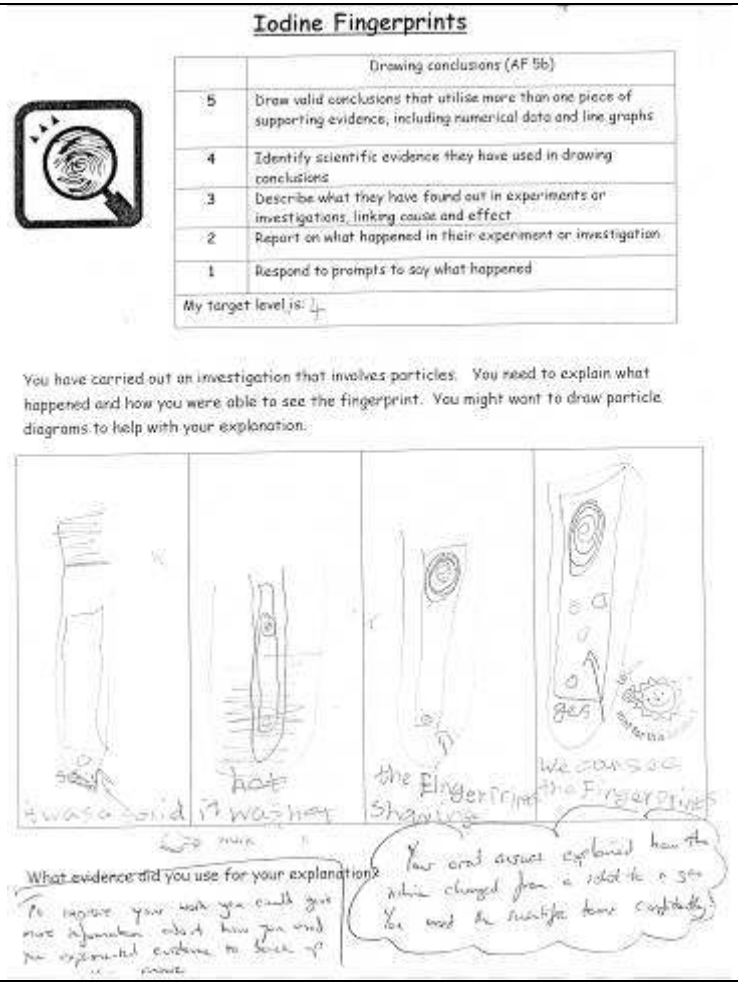
Pupils were asked to present back (in groups or individually) what they knew about how lava moves from their experiment. Pupils were asked to think about how they could present information.

Student created a bar chart to show his results and fed back to the group what his data showed (whilst holding up the bar chart). Although his results were different to the rest of the group, pupil realised that a graph would make his results easier for other pupils to understand and provide a good way to compare his results (oral comments support this)

School assessed level – L3

Moderated level – L3
AF3 – tables and bar charts
Presented simple scientific data in 2 forms – table and bar chart

	Y11 pupil, ASD, SLD Pupil asked (as part of a starter) to sort a collection of materials by given criteria on several occasions Pupil was able to sort materials into hard & soft, shiny & dull. He was able to identify materials by their properties and has a good grasp of 2D/3D shapes	School assessed level – 3(2) Moderated level – level 3
	Pupil of unknown age working in a small group. Was able to suggest equipment suitable for the task (examples given on recording sheet). Pupil was able to display her findings in a table and suggested how she could improve her work by using a stop clock to time the ice cubes melting	School assessed level – 4d Moderated level – 4 Using APP Criteria AF5 - "suggested improvements to working methods, giving reasons" AF4 – suggest appropriate equipment



Iodine Fingerprints

	Drawing conclusions (AF 5b)
5	Draw valid conclusions that utilise more than one piece of supporting evidence, including numerical data and line graphs
4	Identify scientific evidence they have used in drawing conclusions
3	Describe what they have found out in experiments or investigations, linking cause and effect
2	Report on what happened in their experiment or investigation
1	Respond to prompts to say what happened

My target level is: 4

You have carried out an investigation that involves particles. You need to explain what happened and how you were able to see the fingerprint. You might want to draw particle diagrams to help with your explanation.

Y7 pupil with ADHD and learning difficulties. Working as part of a small group doing an iodine fingerprint experiment (following other work on particle theory)

Student could use the words solid, liquid and gas in the correct context. Student knew that an increase in heat caused the iodine to change from a solid to a gas. The student could explain how he knew what was happening to the iodine by referencing (orally) evidence from other experiments.

School assessed level - weak 4

Moderated level – L4

APP – AF5 – identify scientific evidence
AF3 – appropriate language