Floorbooks Guide

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Why use floorbooks?

Floorbooks support teaching and children's learning in science in many ways depending on how you use them in your own setting. Here we describe some benefits that teachers may find when using floorbooks in science lessons.

A one-page summary which you may find useful to share with other teachers or the senior management team in your school is available - see ***Reasons to use a Floorbook***.

Provide an insight into children's practical enquiry skills

Children must develop many skills to work scientifically in the classroom: sharing ideas, making predictions, planning investigations, observing and measuring, recording results, drawing conclusions and evaluating findings. To make a valid assessment of children's practical science skills, a teacher needs to draw on a body of evidence collected over time. However, some of these skills are only evident when children are talking in small groups or in a class discussion. Some children do not have the literacy skills to match their science skills and successfully record their ideas, predictions or findings in written form. We suggest that all practical science skills can be recorded by the teacher in a floorbook.

Examples of children's practical science skills (working scientifically) recorded in floorbooks can be seen in ***Examples of Enquiry Skills recorded in Floorbooks***.

Provide evidence of all types of enquiries

Over the course of an academic year, the children in your class will carry out several investigations which involve different types of enquiry skills: observing over time, identifying and classifying, pattern seeking, research, comparative and fair testing. It is important to consider that some children may struggle to present their work in written form. We suggest that all types of science enquiry can be recorded by the teacher in a floorbook.

You will find examples of how this has been done in ***Examples of different Types of Enquiry recorded in Floorbooks***.

Support teachers' assessment

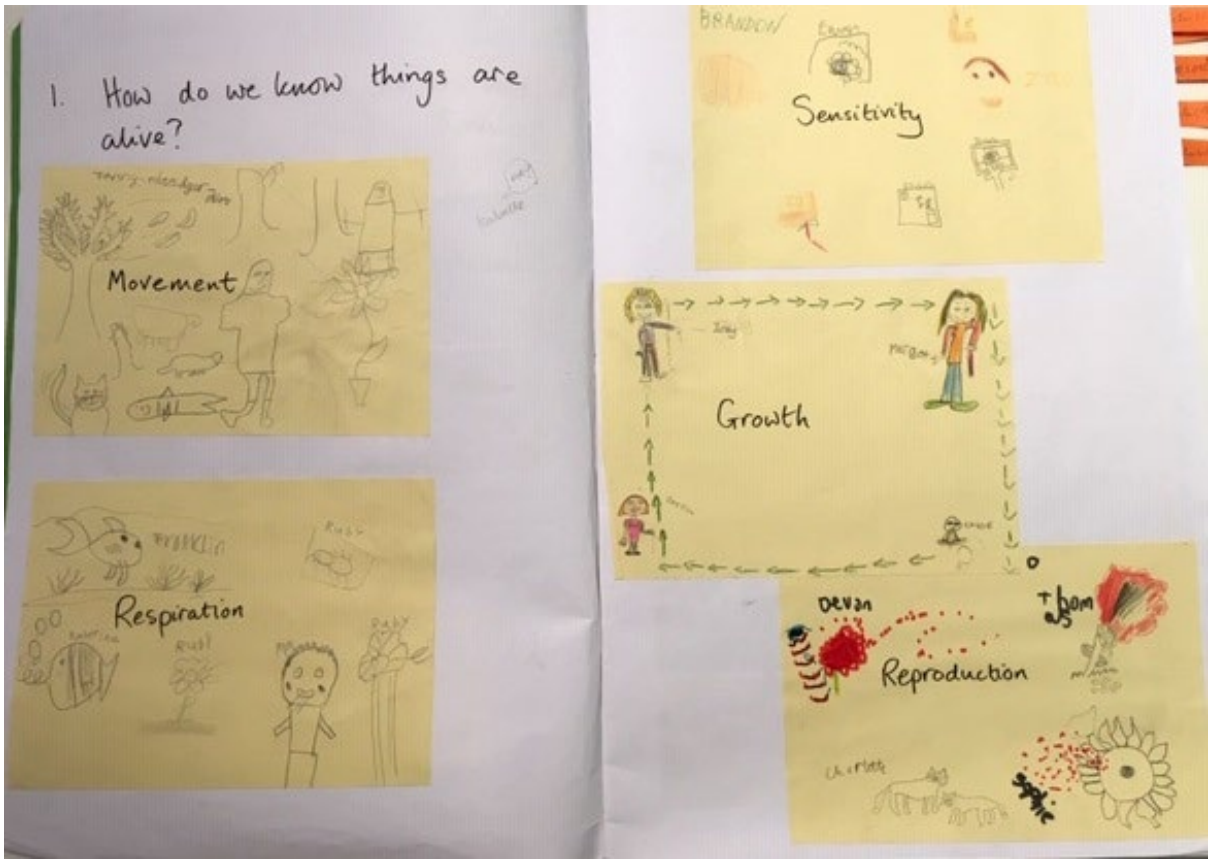
Teacher assessment in science should consider a large body of evidence of the child's knowledge and understanding of scientific processes, and their independent practical science skills. Using a floorbook enables teachers to record oral feedback from children (as well as written work) and use this when making formative assessments to inform planning and summative assessments.

Examples are provided in ***Using a Floorbook to support Teacher Assessment.***

Promote collaborative and group work in science

Science is a collaborative subject. Many investigations require that children work in groups in science lessons. A floorbook is an ideal way to record group work and avoids the need to photocopy outcomes for individual records.

After a teaching input on the characteristics of all living things, children (ages 8-9) worked in groups of four to make a poster to explain one of these characteristics. They then presented their poster to the class and were given feedback from their peers. After making small improvements, the posters were stuck into the floorbook (see image below) and were referred to during the sequence of work.



Motivate children

Teachers using floorbooks which include a wide variety of recorded content have found that all children are excited and enthusiastic about having their work 'published' in the floor book. The advantages of a floorbook are that it provides an opportunity for the reluctant writer, the dyslexic child, the EAL child, SEND (and so many others) to demonstrate their knowledge and skills in a safe environment because it removes many barriers to learning.

Feedback from children confirms that they do like using floorbooks in science.

I like the sciancl floor book because it encorages evriy one to go wow i want to do that or wow as soon as i get home i'm doing that so that they have a chance to be inspiarde by siansc

I like the science floor book because you don't have to write as much and you can remember all the nice things you have done and all the picturs.

I lke The sciervre sloor dock bcas we dont hast rite rite and rite all day

I like the science floor book because everyone can use it whenever they like and we can see everyone's apinion

Provide evidence of the quality of science teaching and learning for external accountability

Floorbooks can provide information and evidence for other people of what has taken place. This might be a classroom assistant letting the class teacher know what has happened within a small group. A floorbook could be shared with a parent interested in finding out what their child has been doing in science.

Another important use is in providing evidence of the quality of science teaching and learning that has taken place for external accountability, such as for an Ofsted inspection. They can be used to demonstrate that formative assessment is taking place in science.

How to use a floorbook

Creating a floorbook is like writing a diary: it's personal and it's up to you what you include and what you don't. You won't be able to include everything that happens in your science lesson, so don't try to. We have made some suggestions here to get you started.

How to prepare before the lesson

You could:

- write the date
- write the learning objective which could be either to acquire knowledge or develop a skill, or both
- write the questions that you will ask

Idea: leave a space between your questions to record the children's 'utterances' or photos of them working.

How to record children's ideas

You could:

- Write down exactly what children say on post its or into the book
- Ask another adult or another child can scribe their ideas
- Ask older children can write their thoughts themselves
- Record just a few children, perhaps those you rarely hear from, or you might want to collect everyone's thoughts to check understanding
- Show progression in children's conceptual understanding by using different colour sticky notes if children change their ideas
- Stick a collaborative piece of work straight into the floor book

Idea: Give every child a sticky note to record their own thoughts (in words or pictures). When some are ready call, "Post it Pit Stop!" and children can place their sticky notes directly into the book. A blob of glue under each one secures them and saves a lot of cutting and sticking after the lesson.

How to develop enquiry and questioning

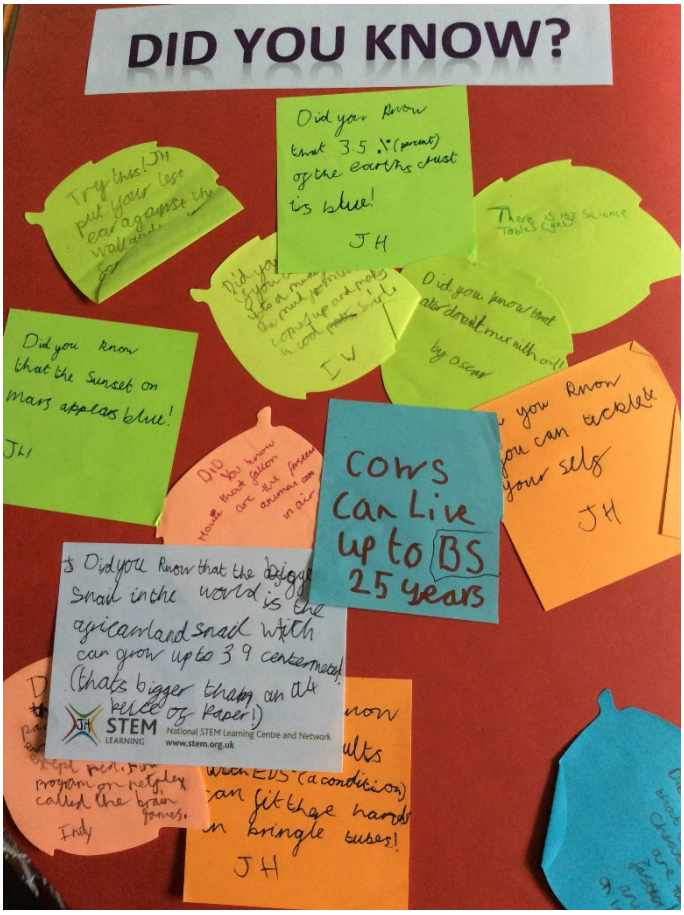
You could:

- Ask differentiated questions
- Direct the enquiry through pre-planned questions
- Leave the book out so the children can access it during the week between science lessons
- Put a question in the book during the week to elicit further learning
- Make the book accessible so that children have time to think and can return with new ideas or share further thoughts having tried or researched something and changed their minds
- Encourage children to put their own questions in the book

How to include everyone

You could:

- Ensure that there are examples of all children's work
- Scribe for reluctant writers
- Share children's 'wow' moments and ideas with the class and record it in the floorbook
- Celebrate the children's ideas in assembly
- Allow children to change their minds and put a new idea in the floorbook
- Use a discussion drawing, e.g., *Science Concept Cartoons*, because some children find it is easier to agree or disagree with an existing idea rather than come up with an original idea of their own. This provides an opportunity for less confident children to justify their thoughts which can then be recorded.
- Have a 'Did you know?' page and invite all the children to share their ideas.



How to record children's practical skills

There are so many skills involved in practical science: sharing ideas, making predictions, planning investigations, observing and measuring, recording results, drawing conclusions and evaluating findings.

You could build a portfolio of evidence of children's skills by recording their actions using photographs, and their ideas using sticky notes or examples of their work. Examples of children's practical science skills (working scientifically) recorded in floorbooks can be seen in ***Examples of Practical Science Skills in a Floorbook***.

How to show evidence of different types of enquiry

Over the course of the school year, the children in your class will carry out many science investigations. By recording some of the children's significant ideas and actions using sticky notes, photographs and examples of written work, you could provide evidence of all types of science enquiry: observing over time, identifying and classifying, pattern seeking, research, comparative and fair testing.

Examples of different types of enquiry carried out by children and recorded by the teacher in a floorbook can be seen in ***Examples of Enquiry Types in a Floorbook***.

How to use a floorbook for assessment

A Floorbook is a great tool for formative assessment. Spend a few minutes at the end of the lesson looking through the children's comments to check conceptual understanding. Make a note of any children who have any misconceptions and address this in the next lesson. Rather than leave misconceptions in the book, offer these children different colour sticky note / pen to change their ideas. When you have a record of children changing their minds (as real scientists do), it is easy to show progress for individual children and the class.

Floorbooks also provide teachers with a means of making summative assessments about children's level of achievement. By looking at a child's comments or photographs of practical work over a period of time, a picture can be built up of how they respond in different situations and what their strengths are.

Examples of how floorbooks have supported teachers' assessment of children's subject knowledge and practical science skills are shown in ***Examples of Teacher Assessment in a Floorbook***.

Who to share floorbooks with

You could:

- Share the floorbook with the children. Make it accessible in the classroom during the week so that the children are exposed to the science ideas and vocabulary.
- Share the floorbook with other adults in the classroom. A classroom assistant could provide information after working with a small group of children or scribe for chosen children. No teacher can see and hear everything!
- Share the floorbook with other teachers. At the end of the year, the floor book can move to the next teacher with the children so that they can see what science teaching and learning has happened in the previous year. This can be extremely useful when the children say, "we didn't do that" and you can show them that they did!
- Share the floorbook with parents interested in finding out what their child has been doing in science. Remember only to include positive comments about the children if you share with parents.
- Share the floorbook with outside agencies. A floor book provides evidence of the quality of science teaching and learning that has taken place for external accountability, such as for an Ofsted inspection.

How to make use of technology

You could:

- Ask children to photograph their investigation and email or airdrop it to you.
- Use student driven digital portfolios, such as *Seesaw, Tapestry*.
- Use a tablet or phone or digital camera to film an activity.

- Use vocal recording, such talking tins, to record ideas.
- Use QR codes in a floor book to link to related educational websites, school website, or student-driven digital portfolios.

How to make sure that using a floorbook is a positive experience for everyone

It is important that you consider how you will address the following aspects of teaching and learning within your floorbook:

- **Differentiation** - you could record one piece of work per ability group or tell the children that you would like to 'publish' a couple of great examples of work in the Floorbook. Be sure to select work from different children each time and you might want to focus on those with low self-esteem rather than the best scientists.
- **Recording attainment** – have a separate assessment file (e.g., for TAPS focused assessment tasks) to avoid including any negative comments about children's achievements or understanding.
- **Misconceptions** - ensure these are addressed in the floorbook and allow children to change their minds. You might even like to offer children a sticky note to record their new understanding and stick this next to their original idea. After all, scientists have changed their minds about scientific concepts over the years!
- **Individual learning evidence** - ensure all children are regularly included in the floorbook. If you are concerned about keeping evidence that all the children in your class can draw tables, plot graphs, write conclusions, etc., you might want to give children persona exercise books to compliment the learning in the Floorbook.
- **Marking** - Floorbooks are not an excuse for not marking, just a different marking system. It can take a similar period after the lesson to review the evidence collected during a lesson and to decide what to include. As you are reviewing children's ideas, thinking and reasoning skills, this can give you a greater insight into their understanding of science concepts and possible misconceptions and be an effective assessment tool.

More information on using floorbooks in science can be found in ASE's *Primary Science* magazine (Jan 2020), Issue 160, page 47.

See *Big books or little books*