



This document has two parts, the first is the general principles of assessment in our school, and the second is the specific methodology for formative and summative assessment in this curriculum subject.

1. General Principles of Assessments

Why is Assessment Important?

Along with pedagogy and curriculum, assessment is a critical aspect in the learning continuum.

Assessment is very important for monitoring the progress pupils make in the curriculum, including the knowledge and skills that the children have acquired. Assessments help teachers and assistant teachers to plan next steps, to help set targets and goals, report to and involve parents in their children's learning and most importantly of all to encourage, inspire and motivate children to address misconceptions, to recall and to improve.

There are two main types of assessment: formative assessment and summative assessment. These are sometimes referred to as **assessment for learning** and **assessment of learning**, respectively. At some level, both happen in almost all classrooms.

Formative Assessments

Formative assessment takes place on a day-to-day basis during teaching and learning, allowing teachers and pupils to assess attainment and progress more frequently. It begins with diagnostic assessment, indicating what is already known and what gaps may exist in skills or knowledge. If a teacher and pupil understand what has been achieved to date, it is easier to plan the next steps. As the learning continues, further formative assessments indicate whether teaching plans need to be amended to reinforce or extend learning.

Effective formative assessment encourages learning by stressing the importance of recall, critical thinking, reasoning, and reflection thus creating a quality learning environment. Many techniques may be used to formally assess student learning. These include questioning (either directed or no-hands up), concept mapping, writing two or three sentences, the teacher observing (e.g. listening to reading) and recommending specific improvements, low stakes quizzes and so on.

Often formative assessments may not be recorded at all, except perhaps in the lesson plans drawn up to address the next steps indicated.

Assessment for learning is an ongoing iterative process that arises out of the thoughtful and sensitive interaction between teacher and learners.

“Human Learning presupposes a specific social nature and process by which children grow into the intellectual life of those around them.” Lev S. Vygotsky

Summative Assessment

Summative assessment sums up what a pupil has achieved at the end of a period of time, relative to the learning aims and objectives and the relevant national standards. The period of time between summative assessments may vary, depending on what the subject is and what the teacher or assistant teacher wants to find out. A summative assessment may take place at the end of a unit of work, at the end of a term or half-term, at the end of a year or, as in the case of the national curriculum tests, at the end of a key stage.

Typically summative assessments take place no more than three times a year. The results of summative assessments are reported to parents regularly so that they are fully involved in the child’s learning journey and are able to monitor the progress their child is making at useful intervals over the course of the academic year. To distribute workload and make the summative assessment meaningful, the school provides short termly assessments rather than one long one at the end of the year.

A summative assessment may be a written test, an observation, a conversation or a task. It may be recorded through writing, through photographs that the child takes themselves and shared with families via SeeSaw, through presentation and performance including Expert Showcase, other visual media, or through an audio or video recording. Whichever medium is used, the assessment will show what has been achieved. It will summarise attainment at a particular point in time and may provide individual, cohort and whole school “snap shot” data that will be useful for tracking progress, for informing stakeholders (e.g. parents, governors, etc.) and for defining whole school improvement plans.

To optimise the benefit of summative assessment the outcome data is analysed by teachers inform whole class next steps and teaching and learning (therefore also having formative benefits). The school uses the NFER PIRA and PUMA tests in this way, results are diagnosed to inform formative next steps.

Recording and Reporting Summative Assessments

Some summative assessments in the Core Subjects such as PIRA (Progress in Reading and Language Assessment) and PUMA (Progress in Understanding Mathematics Assessment) take place on Insight. For Foundation Subjects, Three Part Assessment Grids are used. Once noted these may be shared with the Curriculum Subject Leader.

The Termly Reports to parents/carers use the same language as the Assessment Grids to inform parents whether their child is Working Towards Age Related Expectation/Standard (ARE), At Expected Age Related Expectation/Standard or Above Expected Age Related Expectation Standard.

2. Specific Methodologies for This Curriculum Subject – Science

Curriculum Subject – Science

Curriculum Subject Leader – Charlotte Spelzini

Formative Assessment Methods

Teachers will constantly be assessing childrens learning throughout the topic. This will be done using various techniques. A review will always be done at the start of every lesson to remind and assess the childrens learning and understanding. Throughout the teaching a simple hands up method can be used as well as pin point questioning to target specific children. Children will always be given the opportunity to talk with their peers to discuss the topic as well as have the opportunity to ask questions.

Homework can be another method to assess the learning before moving on, this can be set using Century (KS2).

During practical work teachers will always be observing and listening to discussions to gain an insight into the learning that this happening and use this to inform future lessons. Specific skills are-

KS1

- Can they ask simple questions?
- Can they observe closely, using simple equipment?
- Can they identify and classify
- Can they use their observations and ideas to suggest answers to questions
- Can they gather and recording data to help in answering questions

LKS2

- Do they understand what a '[fair test](#)' is?
- Can they take measurements from a range of equipment?
- Can they gather and record data.
- Can they report their findings orally and in writing.

UKS2

- Do they understand what variables are and how to control them?
- Can they take measurements from a range of equipment, understanding the need for repeated measures to increase accuracy?
- Can they gather and record data using labels, classification keys, tables, scatter graphs, bar and line graphs.

- Can they use test results to make further predictions to set up further comparative and fair tests.
- Can they make conclusions on the test carried out, orally and in writing?

During the evaluation at the end of the lesson children are often extended further with a challenging question that requires the learning from the lesson to be applied. This can be discussed as a class or within groups.

Summative Assessment Methods

At the end of each unit of work teachers will complete assessments in various ways. It could be in the form of a written task: an experiment write up or simple question answer document. The children may be asked to complete an overview of the unit detailing what they have learnt and what they would like to investigate further.

Other Notes Relevant to this Subject:

Milton Road have just started following The Hamilton Trust Science scheme and we are hoping to develop our assessment methods and make them a lot more standardised across the school.

References: <https://blog.cambridgeinternational.org/describing-coherence-of-curriculum-pedagogy-and-assessment/>

Appendix:

Example of Three Part Assessment Grid for XXXXX

Subject: XXXX
Learning Objective:
Example Methodology for Assessment:

Above Expected Age Related Expectation Standard
At Expected Age Related Expectation/Standard
Working Towards Age Related Expectation/Standard (ARE)