

Formative assessment may be defined as:

... all those activities undertaken by teachers, and by their students in assessing themselves, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged. Such assessment becomes ‘formative assessment’ when the evidence is actually used to adapt the teaching work to meet the needs.

(Black & Wiliam, 1998)

The following points provide good guidelines for effective formative assessment in Maths-for-Life lessons.

<p>1. <i>Make the objectives of the lesson explicit</i></p>	<p>Making objectives explicit doesn't necessarily mean writing them on the board at the beginning of the lesson. However, it is vital that the teacher of the lesson has absolute clarity on the mathematical aims. Linking a task to one of the objectives is often a better way to engage students effectively.</p> <p>In Maths-for-Life many of the objectives are to develop particular mathematical concepts that are important in the GCSE exams. This is why the focus during review and closure stages should be on comparing approaches that work with mathematical understanding, rather than answers.</p>
<p>2. <i>Assess groups as well as individual students</i></p>	<p>Group activities allow many opportunities to observe, listen, and question students. They help students to externalise reasoning and allow the teacher to see quickly where difficulties have arisen.</p> <p>It is, therefore, helpful before intervening in a group discussion, wait and listen and try to follow the line of reasoning that students are taking. When you do intervene, begin by asking students to explain their thinking. If they are unsuccessful then ask another student to help.</p>

<p>3. <i>Use divergent assessment methods</i></p>	<p><i>Divergent assessment</i> involves asking open questions that allow students opportunities to describe and explain their thinking and reasoning. These questions allow students to surprise us - the outcome is not predetermined.</p> <p>In contrast, convergent assessment strategies are characterised by tick lists and can-do statements. The teacher asks closed questions in order to ascertain whether or not the student knows, understands or can do a predetermined thing. This is the type of assessment most used in written tests.</p>
<p>4. <i>Give constructive, useful feedback</i></p>	<p>Research shows that responding to students' work with marks or levels is ineffective and may even obstruct learning. Quantitative feedback of this type results in students comparing marks or levels and detracts from the mathematics itself. It is found that qualitative oral comments that help students recognise what they can do and how to develop their thinking are most helpful.</p>
<p>5. <i>Change teaching to take account of assessment</i></p>	<p>As well as providing feedback to students, good assessment feeds forward into teaching. Be flexible and prepared to change your teaching plans in mid-course as a result of what has been discovered.</p>

Adapted from: *Improving Learning in Mathematics, Department for Education and Skills, 2005.*