



Teaching & Learning Policy

Updated September 2019

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Summary of key principles

1. Teaching and learning should be informed by our school *Lesson Evaluation Toolkit*.
2. Lessons should focus on activities which require teacher and/or peer input (rather than activities which students could do on their own, without a teacher or peers).
3. The pedagogies used in lessons should take due account of whether the lesson focus is on developing knowledge, or on developing skills or attributes.
4. Continuous formative assessment should be used to guide teaching and learning in lessons: minute-by-minute, lesson-by-lesson, week-by-week and topic-by-topic.
5. The student Planner should be used to support student self-evaluation of learning on an on-going and continuous basis in lessons.
6. Regular homework should focus on ‘practise’ or ‘flipped learning’, supporting learning out-with lessons. It should link directly to learning in lessons, both recent and longer ago.

What we mean by “teaching and learning”

By “teaching & learning”, we are referring to three interconnected components:

- **Curriculum:** *what* is taught
- **Pedagogy:** *how* it’s taught
- **Support:** both in lessons (differentiation) and out-with lessons

Rationale

Teaching and learning is the core business of Eyemouth High School. It is intended to develop student **knowledge, skills and attributes**. By doing so, on leaving Eyemouth High School, we aim for students to have:

1. **Attained a broad portfolio of qualifications**, which reflects their very best;
2. **Learned a deep body of knowledge and skills**, which sets them up for future learning, employment and life;
3. **Developed in-line with the nationally identified ‘Four Capacities’** i.e. as “Successful Learners, Responsible Citizens, Effective Contributors and Confident Individuals”.

This policy is designed to support high quality teaching and learning in our school so that these aims can be achieved.

Knowledge

By ‘knowledge’, we are referring to the idea of ‘powerful knowledge’ (see, for example, *Knowledge and the Future School* by Michael Young), that is: knowledge which goes beyond the day-to-day experience of a student (e.g. knowing about their local community) and which, when linked to pre-existing knowledge, can be used to support the development of skills.

We believe that the teaching of knowledge is important for three reasons:

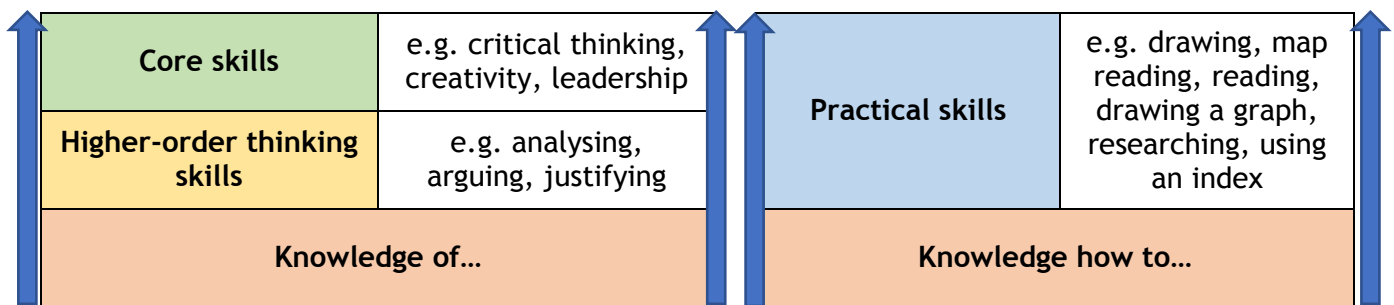
1. **There is inequality in the access to knowledge that students have out-with school, which leads in inequalities in learning in school and, accordingly, attainment.** Research indicates that the more knowledge someone has in their long-term memory, the more they are able to learn. Research also indicates that students from more affluent or advantaged home backgrounds typically have access to a richer body of knowledge than students from less affluent or disadvantaged backgrounds, meaning that those from more affluent backgrounds are more likely to learn more than those from less affluent backgrounds, unless schools play a role in addressing this imbalance. Accordingly, our school has a central role to play in addressing knowledge inequality so as to address attainment inequality.
2. **The development of skills is dependent on secure knowledge.** Research indicates that by developing secure knowledge in a person's *long-term memory*, more space is available in their *working memory* to focus on activities which foster skills development. In short: the development of knowledge is a prerequisite for skills development.
3. **Knowledge in itself can be exciting, inspiring and stimulate a curiosity to learn more i.e. knowledge can foster a desire to learn in and beyond school.** For example, some students love Maths for the sake of Maths, some love learning about History simply because it interests them. Not all learning needs to be about attainment and skills development. We believe that it is important to develop a love of learning in our students, including in school, at home and once they have left school.

Skills

To help understand what we mean by 'skills', we have identified three categories:

Skills category	What we mean by this	Examples
Higher-order thinking skills	The thinking skills set out in Bloom's Taxonomy.	Analysing, justifying, arguing
Core skills (Employability Skills)	<p>Often referred to as 'employability skills', '21st century skills' or 'soft skills'. However, they should not be referred to as 'transferable skills' because they are not necessarily 'transferable' across subject disciplines.</p> <p>For example, the ability to <i>think critically</i> about climate change in Geography or Science does not transfer as a skill to English so that a student is then able to think critically about Hamlet. The development of 'core skills' (such as critical thinking) is dependent upon secure knowledge, which must be taught before the skill can be developed. A</p> <p>We have identified six core skills which students of Eyemouth High School should develop across their six years in school, within subjects (see later section for further details).</p>	Creativity, teamwork, leadership, critical thinking, problem solving, self-evaluation
Practical skills	Typically taught in specific subject disciplines and are transferable across different subjects. Therefore, the teaching in one subject can be complemented by teaching in another. For example, drawing a graph is a practical skill that can be taught in Maths, Science, Geography, Business Management, Graphic Communication etc.; reading is a skill that can be taught in any subject.	Using a saw, drawing, using a microscope, performing a head-spring, baking a cake, map reading, reading, counting, drawing a graph, enquiry, research, presenting

The following diagram illustrates the relationship we have identified between knowledge and skills, including how the development of skills is reliant on a knowledge-base:



The six 'core skills' which we focus on developing in Eyemouth High School are:

Critical thinking	Creativity	Problem solving
Self-evaluation	Teamwork	Leadership

The development of these core skills should begin in S1 and span the Broad General Education and Senior Phases. Subjects should plan for the teaching of core skills at unit level (i.e. through *Programmes of Study*) and at lesson level.

To support students to be able to articulate the core skills that they are developing or have developed (including in the future e.g. when applying for a job), teachers should make clear to students which core skills lessons are aiming to develop.

Attributes

Attributes refers to the development of character and behaviours, for example, the ability to work independently, being co-operative, being willing to volunteer.

Memorising and learning

In understanding the distinction between knowledge, skills and attributes, it is important that we understand the distinction between *memorising* and *learning*:

- *Memorising* means 'committing to long-term memory' and relates principally to the development of **knowledge** - research tells us that particular pedagogies are better suited to committing knowledge to memory than others (see a later section of this policy for further details);
- *Learning* includes memorising but goes beyond this, to include the development of **skills** and **attributes** - research tells us that there are alternative pedagogies which are better suited to the development of skills and attributes (see a later section of this policy for further details).

Our curriculum

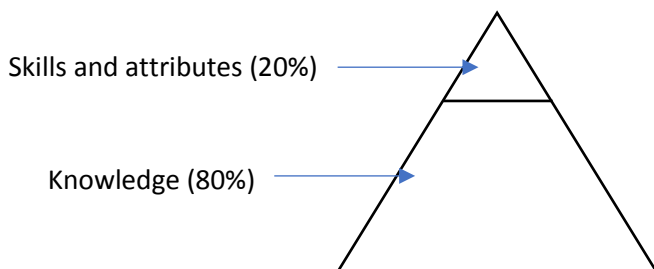
The S1-3 curriculum is informed by national guidelines, including Experiences & Outcomes, and Benchmarks. For each S1-3 course, the Eyemouth High School curriculum should be mapped out in *Programmes of Study*, with specific details of the knowledge to be developed set out in *Knowledge Organisers*.

The S4-6 curriculum is mapped out in *SQA Course Specifications*. Subjects may also have developed their own *Programmes of Study* and/or *Knowledge Organisers*, informed by these.

Use of teaching & learning time in lessons

Pedagogies for teaching knowledge vs skills or attributes

Authors such as Tom Sherrington (see, for example, *The Learning Rainforest*) have suggested that, in terms of the proportion of time we spend on the development of knowledge, skills and attributes, roughly 80% of our time should be spent teaching the knowledge necessary for skills and attribute development, and roughly 20% of our time should be spent on developing and refining the skills and attributes themselves.



Based on the work of Tom Sherrington and others (see, for example, John Hattie, Dylan Wiliam and Daisy Christodolou) we understand that different pedagogies are better suited to teaching knowledge as opposed to skills and attributes, and vice versa.

Accordingly, if the planned learning of a lesson relates to developing knowledge, teachers should be mindful of the pedagogies which are best suited to teaching this; if the planned learning of a lesson relates to developing skills or attributes, teachers should be mindful of the pedagogies which are best suited to teaching these.

Pedagogies which are most effective for <i>knowledge</i> development in lessons - typically, 80% teaching & learning time	Pedagogies which are better suited to <i>skills</i> or <i>attributes</i> development than knowledge - typically, 20% teaching & learning time
Discussion	Discover-based learning
Interactive, direct instruction	Inquiry-based teaching
Supported practise	Web-based learning
Frequent, low-stakes assessment	Problem-based learning
Feedback	Simulations and gaming
Co-operative learning	Student control over learning

By “interactive, direct teaching”, we do not mean the teacher standing in front of the class and lecturing. Rather, there should be an appropriate balance between the teacher talking and students listening, and the teacher listening and students talking. The interchange between the two should be constant.

Questioning is key to such interaction and should typically take the form ‘pose, pause, pounce, bounce’ (Appendix 3). The answers that students give to questions should be used to make teaching points to the whole class. Within this direct teaching, the teacher should give examples and non-examples, and make clear common misconceptions and errors. They should share useful strategies to remember things and make a point of repeating key content.

By “supported practice”, Doug Lemov has summarised this as a five-step process within the body of a lesson:

Step	Lesson segment	Who is doing what	Typical statement
1	Teacher	Teacher does	The first step in adding fractions with unlike denominators is to ...
2	Both	Teacher does; student helps	Let's see if you've got it. How did we say we were going to make our denominators equal?
3	Both	Student does; teacher helps	Just to be clear that you understand, I need you to walk me through the process. What do I start with when adding fractions with unlike denominators?
4	Student	Student does	Now that we have solved this example, try one of your own.
5	Student	Student does, and does	We seem to be getting it so spend the next 6 minutes working on the problems I've provided and then I'll review where I think we are up to.

Lesson Evaluation Toolkit

To support teacher planning and self-evaluation of pedagogy, we have developed a school *Lesson Evaluation Toolkit*, informed by national guidelines (for example, *How Good Is Our School? Version 4* and the *GTCS Professional Standards*) and international research (Appendix 1).

Evaluating teaching and learning

As a general rule, we ask that teachers ensure that teaching and learning in lessons:

1. Is informed by our *Lesson Evaluation Toolkit*.
2. Reflects the pedagogies we have identified as being best suited to the teaching of knowledge, skills or attributes (see earlier section of this policy).
3. Ensures that in-lesson activities are generally those which require teacher and/or peer input - in other words, that they aren't the sort of activity that a student could be doing themselves, out-with class time: we should ensure that we are making the most of our teacher-student contact time.

For example, whilst note-taking can be important, excess note taking or copying of notes in lessons should not be typical practice (high-quality notes are generally available to students for free, for example, online).

4. Is supported by homework, which typically takes one of two formats:
 - a. Practise;
 - b. 'Flipped learning' i.e. finding out about something before attending a lesson, so that the lesson can build on this background work by the student.

Whilst we recognise that the following features of lessons are important prerequisites to high quality teaching and learning, informed by the work of the Sutton Trust and Durham University, we recognise also that they do not, in themselves, mean that learning is taking place:

- Students are busy; lots of work is being done (especially written work);
- Students are engaged, interested and motivated;
- Students are getting attention;
- Students are ordered, calm and under control;
- The curriculum is being 'covered'.

Rather, we recognise that the best proxy for learning taking place is when students are being expected to *think*. When we talk about *active learning*, this is what we mean.

Key area of focus: formative assessment

We recognise that frequent, low-stakes assessment of student learning (formative assessment) is an essential component of high quality teaching and learning, including as a means to get all students to *think* i.e. to *actively engage* in lessons.

In addition to getting students to think, formative assessment creates feedback opportunities for:

1. Students, helping them to recognise where they are in their learning, including what their next steps should be (in other words, helping them to take ownership of their learning);
2. Teachers, helping them to *check* that students have understood what has been taught and to evaluate the impact of lessons, informing future teaching.

We promote a range of formative assessment strategies as integral components of teaching, including use of:

- Show-me boards (mini-white boards)
- ‘Active Assessment’ strategies (e.g. true/false questions, odd-one-out)
- Multiple choice questions (quizzes)
- Questioning (using a Pose, Pause, Pounce, Bounce approach)
- ‘Chat to a partner’ moments
- Traffic-light colours
- Exit tickets

In line with the recommendations of authors such as Dylan Wiliam and Tom Sherrington, we encourage teachers to reflect on how effectively they make use of formative assessment at the following stages:

Stage	What we mean by this
Minute-by-minute	Checking for student understanding during a lesson
Lesson-by-lesson	Checking understanding of lesson content towards the end of a lesson; checking what has been remembered from a previous lesson
Week-by-week	Checking what has been remembered / understood after a week’s worth of learning
Topic-by-topic	Checking what has been remembered / understood after a topic’s worth of learning

In considering the effectiveness of formative assessment at each of these points, we ask teachers to consider:

1. How effectively they are checking the learning of *all* students (rather than just a few);
2. How closely *feedback* is aligned to the outcomes of assessments;
3. How *interventions* are being used so that all students have the *opportunity for remedial learning opportunities* and future assessment, to gauge progress made.

Support

There is a strong body of educational research which suggests that ‘setting’ (i.e. putting students into different classes based on the current attainment levels) before the age of 15 and ‘in-class

ability grouping' have limited positive effects on attainment and will often increase the gap in attainment between students grouped in such ways.

Make-up of classes

For these reasons, our expectation is that **Broad General Education classes (i.e. S1-3) should typically be 'mixed ability'**. As is the case in countries which operate successful mixed ability policies (see, for example, *CleverLands* by Lucy Crehan), and in the spirit of offering appropriately challenging learning experiences for all, we are open to there being an 'accelerated class' comprising the most able students in a year-group for a particular subject.

Where students have significant gaps in their learning compared to others in their year-group for a particular subject, and where there are significant barriers to learning (which may be as a result of learning, behavioural or wellbeing barriers), we recognised that small 'targeted intervention' classes may be appropriate.

In-class support

Differentiation within classes should generally be in terms of the *support* which is offered, rather than in terms of setting different tasks for different students. Useful strategies include initiatives such as 'chilli pepper challenges' (see, for example, Shirley Clarke) and getting students who have successfully completed tasks to support those who are finding them more difficult.

Peers can be an excellent source of support for one another. For example, getting students who have demonstrated success in a task to support those you are finding it more difficult can be a very effective teaching strategy. Not only does it provide an additional level of support to the student(s) who are finding the task difficult, it is in keeping with the principal that, in order to teach or help teach something to someone, you need to have a very good understanding of it. The act of teaching helps to reinforce understanding. Therefore, use of peer teaching in this way benefits both parties.

Key references

Active Assessment Through Formative Assessment, Shirley Clarke (2008)

Aligning Professional Learning, Performance Management and Effective Teaching, Peter Cole (2012)

CleverLands, Lucy Crehan (2016)

Creating The Schools Our Children Need, Dylan Wiliam (2018)

The Curriculum: Gallimaufry to Coherence, Mary Myatt (2018)

How Good Is Our School? Version 4, Education Scotland (2015)

Leadership, Capacity Building and School Improvement, Clive Dimmock (2012)

Knowledge and the Future School, Michael Young and David Lambert (2014)

The Learning Rainforest, Tom Sherrington (2017)

Making Good Progress: The Future of Formative Assessment (2017)

Practice Perfect, Doug Lemov (2012)

Visible Learning For Teachers, John Hattie (2012)

What Makes Great Teaching?, The Sutton Trust (2014)

Appendix 1: *Lesson Evaluation Toolkit*

(On next two pages)

Green: Very good
Amber: Good
Red: An improvement



Lesson Evaluation Toolkit

Supporting high quality teaching and learning in Eyemouth High School
 (including planning, self-evaluation, feedback and discussion)

Teacher: _____ Class: _____ Observer(s): _____ Date: _____

Typical elements of very good practice		Notes
Pedagogy: structural features		
Daily Review (including Weekly & Monthly Review)	<ul style="list-style-type: none"> • Low-stakes assessment, promoting re-call from everyone. • Includes material required for the lesson, recent and less-recent material. 	
Learning intentions	<ul style="list-style-type: none"> • Set out precise learning goals (derived from course content). • Clearly communicated (verbally and visually, if possible) in student friendly language. • Revisited during lesson and in Plenary. • If appropriate, reveal lesson structure. 	
Success criteria	<ul style="list-style-type: none"> • Clear communication of what you are looking for / what success looks like, e.g.: <ul style="list-style-type: none"> • Modelling • Examples • Statements of standards • Common mistakes and misconceptions • Students involved in creation (if appropriate) • Used to support student self-evaluation. 	
Presentation of content	<ul style="list-style-type: none"> • Checking what students know or can do already. • Clear presentation, including explanations and visuals which stimulate interest. • Interactive - includes frequent checks for understanding. • Repeating and summarising key points. 	
Practice	<ul style="list-style-type: none"> • Guided first, then independent. • Co-operative learning opportunities. • Over-learning - lots of opportunities to master content. • Teacher circulating class, checking on everyone. 	
Plenary	<ul style="list-style-type: none"> • Revisits the learning intention and success criteria. • Reinforces the main learning points of the lesson. • Gathers further evidence about what has been learned, was difficult, or not learned (e.g. via Exit Tickets). • Summarises next steps. 	

Pedagogy: cross-cutting principles

Challenge & support	<ul style="list-style-type: none"> • Tasks are appropriately challenging - not too easy but not too difficult. • Balance of familiar and less-familiar content. • Choices within activities, with differing levels of challenge. • Availability and use of support resources, e.g.: <ul style="list-style-type: none"> • Knowledge Organisers • Checklists & scaffolds • Peer teaching 	
Make students think & check for understanding	<ul style="list-style-type: none"> • Strategies to make <u>everyone</u> think and <u>everyone's</u> learning visible, e.g.: <ul style="list-style-type: none"> • Questioning: pose, pause, pounce, bounce • Discussion (e.g. chat to a partner, think-pair-share) • Active assessment methodologies (e.g. true/false, multiple choice) • Show-me boards. 	
Feedback	<ul style="list-style-type: none"> • Clear and precise. • Recognises positives and points to next steps - 'what' and 'how'. • Links to success criteria (e.g. modelling, examples, statements of standards). • Individual and whole-class messages. • Includes verbal and written comments (as appropriate). • Time available for students to take on board feedback and improve (may be via homework). 	

Learning environment

Relationships	<ul style="list-style-type: none"> • Knowing students well. • Positive and professional interactions. • Recognition of positives, particularly effort. 	
High Expectations	<ul style="list-style-type: none"> • High expectations of effort, behaviour and quality of work. • Target / goal setting (e.g. personal bests). • Encouragement. 	
Management	<ul style="list-style-type: none"> • Calm, ordered, under control. • Effective use of time, space and resources. • Appropriate pace. 	
Behaviour	<ul style="list-style-type: none"> • Students are on-task, engaged, interested, motivated. • Poor student behaviours promptly dealt with and in as low-level a way as possible. 	

Appendix 2: Learning Intentions and Success Criteria

(Lesson Evaluation Toolkit, Elements 1, 2 and 19)

Every lesson should have a clear learning intention (purpose), whether this be for students to learn something new, to consolidate their learning (e.g. through revision) or to demonstrate their learning (i.e. through assessment).

It is important that learning intentions are shared with students. Best practice is to do this both verbally and visually. At the start of a lesson, S1-3 students are expected to record a summary of the learning intention in their Planner.

There should also be clear success criteria for all lessons, either as statements of standards or as modelling of standards (see below).

Towards the end of a lesson, learning intentions and success criteria should be revisited and used as a benchmark for students to self-evaluate their learning against. By the end of a lesson something should have changed: students should know something that they didn't before, they should be able to do something that they couldn't before, or they should have improved at something. In S1-3, students are expected to make a record of this self-evaluation in their Planner.

Learning intentions (WALT)

Learning intentions are specific statements of what learners can expect to learn. They are about 'What we Are Learning Today' (WALT). Because learning typically relates to knowledge, understanding and skills development, as a general rule, learning intentions should be written in the form:

- "Know..." (knowledge)
- "Understand..." (understanding)
- "Be able to..." (skills)

Sometimes, it may be more appropriate to write them in the form:

- "Improve..."
- "Get better at..."
- "Consolidate..." etc.

They should relate to what is to be *learned*, not to a particular task or activity asks them *to do* (i.e. the methodology used to achieve the learning).

Success criteria (WILF)

Success criteria can be statements which specify exactly what students must *demonstrate they know, understand or can do* in order to achieve the learning intention. Used in this way, they are about "unpacking" the learning intention make clear exactly what the teacher is looking for. In other words, they are 'What I'm Looking For' (WILF).

Used in this way, success criteria would normally take one of two forms:

- 'I can...' or 'I have...' statements beginning with **verbs** e.g. 'name, state, include, recognise, describe, explain' etc.. (these link to Bloom's Taxonomy);
- A **checklist of components** required to demonstrate success.

Success criteria can also be about **modelling standards**. For example, showing students what a successful outcome will look like.

Having clear success criteria (either are statements of standards or via modelling) is a prerequisite to effective assessment (teacher, peer or self) and feedback.

Examples of learning intentions and success criteria

Learning Intention (WALT)	Success Criteria (WILF)
<p>Be able to change units of length: metres to centimetres and vice versa.</p>	<p>Given a length in metres I am able to change it to centimetres.</p> <p>Given a length in centimetres I am able to change it to metres, using decimals where necessary.</p>
<p>Understand what symbolism is and how it works in the play.</p>	<p>-You can tell someone what the definition of symbolism is</p> <p>-You can explain why the bear is important to the play</p>
<p>Understand how to mix secondary and tertiary colours and apply colour effectively.</p>	<p>You will be more successful if you:</p> <ul style="list-style-type: none"> • aim to mix colours by adding dark colours to lighter ones NOT the other way round • concentrate and work carefully within the boxes • use a fine brush with accuracy
<p>We are going to learn how to use ‘tempo’ to increase the effectiveness of our strength and conditioning programme.</p>	<p>I can demonstrate the correct tempo for each exercise.</p> <p>I explain the actions for each number in the sequence of numbers describing the ‘tempo’ for particular exercises.</p>
<p>We are going to learn how to move our partner round badminton court.</p>	<p>SC 1 - use learnt shots to put shuttle where your partner isn’t (in practice)</p> <p>SC 2 - use learnt shots to put shuttle where your partner isn’t (in a game)</p>
<p>Understand the different types of training methods and why training is important to a business.</p>	<ul style="list-style-type: none"> • I can describe the three main types of training. • I can explain their advantages and disadvantages. • I can explain the general advantages and disadvantages of training
<p>Be able to create a flowchart as a group for an Engineering problem</p>	<p>Youi have...</p> <ul style="list-style-type: none"> • Identified input and outputs of the system • Used the correct symbols for a flowchart • Created a flowchart for a Pelican crossing • Communicated appropriately with your group

<p>Understand how writers use language to persuade readers to agree with them.</p>	<ul style="list-style-type: none"> • I can identify key terminology and jargon. • I can explain what the writer’s point of view is. • I can identify at least three ways the writer has put across their point of view.
<p>Be able to write an introduction for an essay.</p>	<p>My essay has an introduction which is:</p> <ul style="list-style-type: none"> • On topic • Clearly written • Makes the reader want to read on
<p>Be able to produce a newsletter.</p>	<p>Your newsletter has the following features:</p> <ul style="list-style-type: none"> • Title • Date • Hyphenation (correctly used) • Graphics • Justified columns • Good grammar • Correct spellings • Filled pages
<p>Know what strategies to use to develop our vocabulary on “les vacances”.</p>	<ul style="list-style-type: none"> • I can find words and phrases in the list that I know. • I can cluster the same sorts of words and phrases together. • I can explain to my partner why they are the same. • I can tell my partner why theirs are the same. • I can sort out all the words and phrases into five like groups.
<p>Know how to calculate the area of different triangles.</p>	<p>Remember to:</p> <ul style="list-style-type: none"> • identify and measure the base and height; • multiply the base by the height and divide by two; • record the units in squares.
<p>Understand how to separate solids from liquids by filtering.</p>	<ul style="list-style-type: none"> • You can list the pieces of equipment that you will need. • You can draw an accurately labelled diagram of how the equipment should be set up.
<p>Be able to use a chisel safely and effectively.</p>	<ul style="list-style-type: none"> • Chisel small sections in a controlled manner. • Stop short of the final line. • The finished surface should be fairly flat.

Appendix 3: Questioning

(Lesson Evaluation Toolkit, Element 9)

Questioning is a form of formative assessment. We encourage the use of show-me boards (or ‘mini-whiteboards’) and “chat to a partner” moments during questioning.

Show-me boards are a useful formative assessment tools for three reasons:

1. They get students to commit to an answer by writing it down;
2. They get *everyone* involved in answering a question;
3. By having an answer written down, teachers can use this as a visual stimulus to promote discussion amongst students as to whether or not they agree with what another student has written. In other words, they can help students to learn from each other.

When asking questions, we encourage teachers to think about *what* they are asking and *how* they are asking it. Teachers should reflect on the balance of **closed and open questions** - both are important to effective teaching and learning.

When asking verbal questions, we encourage teachers to use the following approach:

1. **Pose** - ask the question to the class;
2. **Pause** - allow appropriate thinking time. Expect everyone to think about the answer. Don't let students shout out. Use cues such as “Take 10 seconds to think about it”, “Don't shout out - I want everyone to think about it” and “Chat to a partner about it”. Use show-me boards;
3. **Pounce** - ask someone to answer the question;
4. **Bounce** - ask the student if they are sure, or ask them why they think that. Ask someone else if they agree with the answer that has been given. Ask them why they agree or disagree. Ask someone to build on or add to the answer that has been given e.g. “Max: do you agree? Why? Can you say any more about that?”. Expect everyone to be listening to each other's answers.

Appendix 4: Evaluating the Impact of Lessons

(Lesson Evaluation Toolkit, Element 20)

By making use of formative assessment towards the start of a lesson, during a lesson, and towards the end of a lesson, students and teachers can get a feel for *what has changed as a result of the lesson*, supported by evidence. This helps students to self-evaluate their learning and teachers to evaluate the impact of the lesson, informing next steps and the next lesson. Such an approach supports the meta-cognition and self-regulation processes identified by the Education Endowment Foundation as being able to make as much as 8-months impact on student learning.

Regardless of what students are being taught in a lesson, we expect teachers to be “evaluators of impact”, which means using evidence generated during the lesson to make an evidenced-based judgement on the success of the lesson on student learning, including what next steps should be. Finding out how students self-evaluate their learning/progress should be an important part of this evidence-base. This can be done in a variety of ways, including:

- Getting a show of hand for who has evaluated their learning as green/amber/red, and then asking some questions as to why;
- Getting students to hold-up one of the green/amber/red cards towards the back of their Planner to indicate how they evaluated their learning, and then asking some questions as to why;
- Using Exit Tickets (which might be post-it notes) on which students write down if they evaluated themselves as green/amber/red, including why. These might include bullet points about what they felt their key learning was, bullet points about things that they weren't sure about, or questions that they would like to ask about content from the lesson. These can be handed into the teacher or stuck onto a display on the wall, which might itself have green/amber/red sections.

When assessing the impact of lessons on student learning, as far as possible, teachers should be trying to use strategies so that evaluate the learning of *everyone*.

Appendix 5: Classroom Management

(*Lesson Evaluation Toolkit*, Elements 4, 5, 7, 16, 17 & 18)

The following classroom management strategies are taken directly from Cole (2012):

Keep the lesson flowing

- Know exactly what you are going to do and have all of the necessary resources at hand.
- At the beginning of the lesson or topic, inform students about the aims of the topic and the instruction and activities that will be used to achieve these aims.
- Set up classroom rules and protocols so behaviour expectations are clear.
- Let students know when an activity is going to be changed so they have time to finish what they are doing and prepare mentally for the change.
- Always attend to the needs of the majority of the class and have them engaged in learning before attending to individual students who need special attention.
- Give clear instructions when introducing a new task. Specify why it is being done, how it connects to work already complete or about to commence, what is to be done and an approximate time limit for the activity.
- Don't allow yourself to be side-tracked into answering irrelevant questions or requests.

Keep students interested

- Vary the volume, speed and tone of your voice.
- Be enthusiastic about what you teach.
- Vary the manner in which you teach - vary assignments and activities (e.g. debates, excursions, guest speakers, role plays); student groupings; seating arrangements; questioning intensity; student roles; the use of media; etc. Match the activities to the learning objective.
- Move around the room while teaching and allow students to move occasionally.
- Ensure that lesson content is challenging but achievable.

Keep students accountable for learning

- When questioning a class, don't accept the first correct answer and move on; take a number of answers before saying whether they are correct.
- Ask a question and then select a student at random to answer it. If a student refuses or cannot answer a question, seek answers from other students and then come back to that student for an answer - even if it is just to ask 'Do you agree with the last answer you heard?'
- When asking a question and nominating a respondent, be prepared to wait a little time (say 5 seconds) to give the student time to frame an answer.
- If a student has given a partial or inadequate answer, give them a follow-up question with 5 seconds of wait time or call on another student to take the student's answer further.

- Occasionally ask a student who has given a correct answer why they answered that way.
- Collect, correct and discuss key homework tasks.
- Ask all of the class to respond to a question by writing their answer and hold it up so as you move around you are able to read it.

Make students feel monitored

- Position yourself in the classroom so that if you lift your eyes you can see all of the students
 - a corner location is good as you only need a 90 degree sweep of your eyes, whereas in the front you may need a 180 degree sweep.
- When talking with one student do not become oblivious of the rest of the class - frequently scan the room to see that all is in order.
- Whenever a student is seen to be off task, inform him/her that the behaviour has been seen and is not acceptable - this need not be done publicly but could be communicated by making eye contact and nodding disapproval.

Build strong goodwill

- Make opportunities to get to know your students well; spend positive time with them.
- Demonstrate that you are concerned for the student; even though you may not like her/his behaviour. Recognise the strengths of your students and encourage them.
- Help them and accept help, and show your appreciation when they offer to help you.
- Show interest in their lives outside the classroom and the school; support their sporting interests.
- Engage them in conversations on topics that they want to talk about.
- Show interest in their problems and generally.

Appendix 6: Selected 'Effect Sizes'

Taken from John Hattie's Visible Learning website (2018)

Pedagogical practice	Details	Effect Size
Classroom discussion	<p>A method of teaching that involves the entire class in a discussion. The teacher stops lecturing and students get together as a class to discuss an important issue/concept. Classroom discussion allows students to improve communication skills by voicing their opinions and thoughts. Teachers also benefit from classroom discussion as it allows them to see if students have learnt the concepts that are being taught. Moreover, a classroom discussion creates an environment where everyone learns from each other.</p> <p><i>Examples for an effective classroom discussion: Create a series of questions for the students to think about. Allocate enough time in the lesson for an elaborate discussion. Make sure that students can freely express their opinion/thoughts/conceptions without being laughed at or ridiculed.</i></p>	0.82
Teacher clarity	<p>Ensuring a clear lesson purpose; clear explanations; clear demonstrations; practice tasks clearly focused on the lesson purpose; checking that students have a clear understanding on the new material.</p> <p>One of the main points of John Hattie's books about Visible Learning is the importance to clearly communicate the intentions of the lessons and the success criteria. Clear learning intentions describe the skills, knowledge, attitudes and values that the student needs to learn. Teachers need to know the goals and success criteria of their lessons, know how well <i>all</i> students in their class are progressing, and know where to go next. Teachers need to be clear what the starting point is in terms of what students already know/can do and build on this.</p>	0.75
Feedback	<p>Feedback can be one of the most powerful influences on learning and achievement, but this impact can be either positive or negative. Feedback on task, process and self-regulation level is far more effective than on the self-level (e.g. praise which contains no learning information). Descriptive feedback is closely related to providing formative assessment.</p> <p>Hattie has also emphasised that the most powerful feedback can be that given from the student to the teacher -this feedback allows teachers to see learning through the eyes of their students. It makes learning visible and supports the planning of next steps. The feedback that students receive from their teachers is also vital. It enables students to progress towards challenging learning intentions and goals.</p>	0.73
Concept mapping	<p>A concept map is a type of graphic organiser used to help students organise and represent knowledge of a subject. Concept maps begin with a main idea (or concept) and then branch out to show how that main idea can be broken down into specific topics. They serve several purposes for learners, including: helping students brainstorm and generate new ideas; encouraging students to discover new concepts and the propositions that connect them; allowing students to more clearly communicate ideas, thoughts and information; helping students integrate new concepts with older concepts; enabling students to gain enhanced knowledge of any topic and evaluate the information.</p>	0.69

Graded homework (secondary school students)	By graded, we mean that something is done with it i.e. students receive feedback on it (rather than a score or a 'grade' being assigned to it). There is evidence to suggest that feedback-only marking is a more powerful approach than use of scores and grades.	0.64
Time on task	Ensuring that students are given adequate time on a particular learning activity. This includes time allocated by the teacher and time engaged by the student.	0.62
Direct instruction	Setting out the learning intentions and success criteria for the lesson; reviewing prior learning; present new content; use of formative assessment (e.g. via questioning) to check understanding; allowing time for independent practice, with opportunities for teacher support and feedback; review learning from the lesson, including how well it was learned and next steps.	0.60
Spaced practice vs massed practice	Frequency of different learning opportunities; three to four exposures to learning over several days before learning occurs. Spacing the practice of skills or applying knowledge over a long period of time.	0.60
Teaching strategies	Using a variety of different strategies to teach something; coming at the learning from different angles; adjusting teaching in response to what appears to be working or not.	0.60
Study skills	Develop task-related skills (note taking, summarising); self-management learning skills (planning, monitoring, tactics, strategies); and non-cognitive features of learning like motivation.	0.60
Mastery Learning	A system of tests and re-tests of easy material with a high pass mark. If a student does not pass, they must do extra work and then take a re-test on the material they were weak at. Numerous feedback loops based on small units of well-defined appropriately sequenced outcomes.	0.57
Co-operative learning compared with individual learning	Most powerful when students have acquired sufficient background knowledge to be involved in discussion and learning with peers. Most useful when learning concepts, verbal problem-solving, spatial problem-solving, retention and memory. Effects increase with age.	0.55
Peer tutoring	Students teaching each other (peer-explaining, peer-checking, peer-assessing); students move to being teachers of themselves.	0.55
Classroom cohesion	Positive classroom climate; the sense that the teacher and the students are working toward positive learning gains together.	0.53
Scaffolding (worked examples)	A process in which teachers model or demonstrate how to solve a problem, and then step back, offering support as needed.	0.53
Meta-cognitive strategies	Thinking about thinking; plan how to approach a given learning task; evaluate progress; monitor comprehension. Self-questioning is an example.	0.53
Goal setting	Students being given challenging yet achievable learning goals; teachers set challenging targets, rather than "do your best".	0.52
Frequency of testing	Testing by itself is not as effective as remediation / feedback where the test is used to find what the student needs to improve and they then do corrective work; should provide feedback to teacher to be really effective.	0.52
Teacher-student relationships	Teachers facilitate student development by demonstrating that they care for the learning of each as a person.	0.52
Classroom management	Ensuring an environment which is conducive to learning, including in relation to how the classroom is set up and resources are allocated.	0.52
Questioning	Most effective questions are high order "why, how and which is best" questions that cause students to really think; they need to be given time and do better in pairs than alone; important to analyse the questions students ask, too	0.48