



Teaching and Learning Policy

At Isaac Newton Academy our aim is to equip every student with the knowledge, learning power and character necessary for success at university and beyond. Ensuring that the school is an environment in which outstanding teaching and learning flourish and are seen consistently in every part of the academy is fundamental to the realisation of this aim. Learning is our central activity. Outstanding learning is created through great teaching, a culture of the highest expectations and no excuses, excellent relationships between learners and the ultimate staff credibility. Learning is an active and exciting process in which everyone participates and at times leads.

Aims

The desired goal is "Teachers seeing learning through the eyes of students and students seeing teaching as the key to their ongoing learning". John Hattie

The aims of this policy are:

- To communicate our expectations of teaching and learning to all staff
- To make clear our non-negotiables
- To provide strategies and techniques and so contribute to the CPD of staff
- To ensure consistently outstanding practice in teaching and learning across the Academy
- To ensure that students are engaged in active, exciting and challenging learning that will instil in them a life-long love of learning
- To equip students with the habits of mind, dispositions and learning power to be successful learners
- To support the achievement of outstanding academic outcomes and examination qualifications

What we know about great teachers

“The biggest effects on student learning occur when teachers become learners of their own teaching, and when students become their own teachers.” John Hattie

“The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.” William Arthur Ward

“You can teach a student a lesson for the day; but if you can teach him to learn by creating curiosity, he will continue the learning process as long as he lives.” Clay. P Bedford

“What I hear, I forget. What I see, I remember. What I do, I understand.” Kung Fu Ta (Confucius).

“Adding context brings learning alive.” Karen Price. Chief Exec of eSkills UK

Great teachers are first and foremost learners, and model their learning visibly. They talk about their learning, their learning challenges and the joy of learning – they seek to make every aspect of the learning process as visible as possible. They deliberately share new or contested findings and ideas in their subject with their students. They cheerfully acknowledge when they don't know the answer to a question they are asked. They invite students to throw tricky questions at them so that they can see their teacher thinking on his/her feet when faced with uncertainty. They are happy to share with their students the task of finding things out. They pause and think aloud when things do not go according to plan.

They are convinced of the limitless capacity of everyone to learn and they use growth mind-set language (see Language For Learning Policy). They recognise that learning takes place everywhere: in and out of formal lessons and the classroom. They strive to make learning relevant, authentic, applicable and to place it in context.

They plan meticulously but recognise that mistakes will be made. They role model openness, curiosity and non-defensiveness. They review and evaluate and constantly strive to get better as teachers and learners.

Great teachers are facilitators of learning. They know that excellent teaching is more about helping students to find information and figure things out, rather than telling them things. They ask themselves, “What is the least I can do to get productive learning happening here (again)?” They give students a central responsibility for their and their peers' learning. They fully involve students in planning, delivering and evaluating lessons. They give students increasingly demanding opportunities to take charge of their own learning.

Great teachers design exciting and varied lessons that intrigue their students (students stretch their learning muscles best when their energy and attention are captured by what they are doing). Students learn best when their teachers adopt a variety of learning approaches in a

series of lessons. Learning activities should include: investigation, experimentation, observation, discussion, practical exploration, role play, problem solving, decision making, pair and group activities.

Recent research by John Hattie suggests that the *credibility* of a teacher in the eyes of the students is absolutely key to ensuring that they learn effectively: “The effects on achievement are high and the reason is that teachers who constantly show students they care, and know the difference and impact they are having on students, are ‘visible’ and welcome.” The key elements of credibility, as identified by Hattie are

- Trust (being genuinely sincere and honest, demonstrating that you care about the students’ progress and learning, being fair and consistent, taking an interest in students’ lives outside of school and showing trust towards students in the educational process)
- Competence (being thoroughly prepared and organised, delivering information accurately, showing confidence in subject matter and using relevant experiences to provide greater insights for students)
- Dynamism (having a powerful and assured speaking style, varying physical movements to complement the message, varying vocal characteristics – rate, pitch, inflection and tone - and using a variety of evidence, stories, visual aids and other media to add interest to the message)
- Immediacy (having a relaxed body position, establishing eye contact with all students, smiling to disarm and relax students, moving about the teaching space and using pronoun such as “we” or “us”).

Hattie also distinguishes between expert and experienced teachers: “Students who are taught by expert teachers exhibit an understanding of the concepts that is more integrated, more coherent and at a higher level of abstraction than the understanding achieved by students in classes taught by experienced, but not expert, teachers.”

BLP and the BRIDGES framework

“I cannot teach anybody anything. I can only make them think.” Socrates

“The important thing is that young people learn to articulate and express themselves. It’s also about how you work together, share information, build teams, make tough decisions. In the world of work these skills are absolutely prime.” Heather Rabbatts, former MD of 4Learning.

At Isaac Newton Academy we see the classroom and the activities that take place in it more as a learning gymnasium than a place where knowledge simply gets handed on. Staff see themselves as learning power coaches, helping students to develop the learning dispositions and characteristics in the BRIDGES framework (see the INA Curriculum Policy). Students might be given cryptic drawings to pore over, thus stretching their noticing muscles. They may be subject to a series of minor distractions to help them build their powers of concentration.

Students understand that the content they are learning is a way of giving their minds a useful workout.

An outstanding BRIDGES learner:

- Has the confidence to say “I don’t know” (B)
- Is willing to take risks and try something that they are not sure how to do (B)
- Is happy to take a lead in group learning (B)
- Is good at seeking and gathering information (R)
- Is an enthusiastic researcher (R)
- Is good at finding, making and capitalising on resources that will help them answer a question (R)
- Knows how to ask rich, pertinent questions (R)
- Uses imagery, analogy and metaphor in their thinking (R)
- Is good at mental rehearsal and simulation (R)
- Doesn’t jump to conclusions (I)
- Supports and involve others in class/group learning (I)
- Enjoys exploration and investigations (D)
- Likes to get beneath the surface (D)
- Sticks at things which they find difficult (G)
- Bounces back from their mistakes (G)
- Collaborates and share ideas, suggestions and resources (E)
- Can give their view and hold their own in a debate, yet stay open-minded (E)
- Can give feedback and suggestions skilfully and receive them graciously (E)
- Is able to take a step back and take stock of things (E)
- Considers alternative strategies and possibilities (E)
- Is able to reflect on their own strengths as a learner and to think strategically about how they can get even better (E)
- Is prepared to put in hours of hard work (S)
- Is able to think carefully, rigorously and methodically (S)
- Can analyse and evaluate (S)
- Can create plans and structures to support their learning (S)
- Knows how to practice purposefully (S)
- Enjoys looking at work in progress and redrafting it (S)

Creating the environment for outstanding teaching and learning

“The goal is to provide rich environments in which to grow better brains.” Andy Clark

“I never teach my pupils; I only attempt to provide the conditions in which they can learn.” Albert Einstein

“All children start their school careers with sparkling imaginations, fertile minds and a willingness to take risks with what they think.” Ken Robinson.

It is a key responsibility of all staff to create the optimal conditions for outstanding learning to take place.

Students need to feel:

- a) Emotionally secure and safe: confident to take risks, ask questions, try new activities, take themselves out of their comfort zone, attempt new challenges and make mistakes. This requires staff to be encouraging, sensitive, warm, empathetic, respectful, to use growth mindset language, model learning, boost self-esteem and ensure that all students do the same
- b) Stimulated and inspired: to have their imaginations and aspirations fired by visual displays, physical resources, examples of excellent practice and attainment. This requires staff to have high expectations, exude optimism, regularly showcase high level outcomes, give time and thought to the use of a rich range of lesson materials and refresh and replace classroom and corridor displays regularly.

Sometimes students need to be persuaded to want to learn the things that are the learning outcomes of the lesson. As William Purkey (1992) put it, teachers need to ‘invite students into learning’. Such an invitation conveys respect, trust, optimism, and intentionality.

The Harkness Philosophy

At Isaac Newton Academy all teachers are teachers of the Harkness Method (see appendix at the end of this policy). Harkness discussions are built into every Scheme of Learning. Two fundamental expectations of all Harkness teachers underpin our expectations at Isaac Newton Academy:

1. that all students play an active part in all learning activities
2. that all students carry out the independent learning activities in preparation for the next lesson.

Outstanding lessons

In outstanding lessons:

- Almost all students and groups of students make consistently rapid and sustained progress

- Students acquire knowledge quickly and in depth, with a high level of understanding and excellent subject knowledge
- Students show high levels of engagement, interest, resilience, confidence and independence
- Planning is astute, with time used very well
- Tasks are challenging and match students' needs accurately
- Interventions are sharply focused and timely
- Teachers' expectations of students are consistently high
- Teaching of reading, writing, communication and maths is exceptional and students develop and apply a wide range of skills to great effect in reading, writing, communication and mathematics
- There is systematic and accurate assessment of prior learning
- Understanding is checked regularly throughout the lesson
- Appropriate independent learning tasks are set
- Marking and feedback are of a consistently high quality and students are clear about how to improve
- Students make every effort to ensure that others learn and thrive in an atmosphere of respect and dignity
- There are very high levels of collaboration, courtesy and cooperation
- Lessons proceed without interruption
- Students' attitudes are enthusiastic and positive
- Everyone feels safe and contributes to a safe and positive learning environment
- Students think deeply, have clear personal values and are open to new ideas
- Students are principled, resolve conflicts intelligently, accept others' rights and appreciate cultural diversity
- There are strong cross curricular links.

(OFSTED 2012 & 2014 Frameworks)

Newton's 20 Laws of Outstanding Lessons

At Isaac Newton Academy there are certain "non-negotiables" about every lesson.

We always:

1. Have our lesson planned in advance, with the lesson plan written on an INA lesson planning proforma, posted on the T drive by 8am on the day of teaching
2. Arrive at the lesson before the students and before the bell and are at the door to greet students as they enter

3. Use eye contact, names and smile to make every student feel welcome as they enter the classroom and make a point of saying hello to any student whom we sanctioned or was absent last lesson
4. Ensure that all students are focused on learning and the lesson as they cross the threshold (all talk from this point on is lesson-related)
5. Have a seating plan for the lesson and ensure that students know where to sit
6. Ensure that all students have their organisers, exercise books and stationery on their table
7. Ensure that the classroom is engaging, fully resourced with stimulating visuals and tidy
8. Have key words on/ready to display (may be on the IWB, dry wipe board, on tables or on the walls)
9. Have the independent learning pre-prepared and ready to display for the students at the relevant point in the lesson
10. Have a starter activity ready for the students to commence as they arrive
11. Take the register within the first 5 minutes of the lesson starting
12. Ensure that all students are clear about the Learning Objectives for the lesson and that at some point in the lesson (often at the very start) these are displayed visually
13. Ensure that the behavioural expectations laid out in the Code of Conduct are met by everyone in the room and that the Positive Behaviour For Learning Policy is consistently enforced
14. Ensure that LAs are fully involved in supporting the teaching and learning
15. Ensure that Language for Learning is consistently used in the lesson
16. Give Praise and Recognition according to the Academy policy
17. Ensure that the highest standards of presentation of work are maintained as outlined in the Presentation Policy
18. Ensure that there is a reflective plenary where progress and learning is assessed
19. Ensure an orderly and timely dismissal of students from the classroom
20. Leave the classroom in a tidy and ordered condition, ready for the next class

The Teaching and Learning Planning Cycle

The teaching and learning planning cycle forms the overarching scaffold for all planning of learning at Isaac Newton Academy. It ensures that teaching is pitched at the correct level and that support and challenge are planned for consistently. The cycle has 4 stages, with each step informing the next:

1. Where are my students now?
2. What do I want my students to learn? Where do I want them to get to?
3. How will my students acquire this knowledge/these skills?
4. How will I know when my students have mastered the knowledge/skills?

Stage 1 involves reflecting on what assessment data tells us about current knowledge/understanding/skills/character. This then informs the direction of subsequent teaching to best cater for students' needs. Understanding prior achievement is crucial as we use our existing knowledge to make sense of and learn new information. When we develop new knowledge we build on and connect it to our previous knowledge or understanding.

Stage 2 is about the teacher deciding what skills and knowledge s/he wants the students to acquire next. This is centred on deciding learning objectives and learning outcomes (success criteria). The teacher will always have in mind the end point of students acquiring the qualifications and grades required for entrance to the top universities and will work backwards from this end point.

Stage 3 is about deciding on the most appropriate teaching and learning activities to get the students to the end point determined in stage 2. It involves considering teaching strategies, classroom organisation, resources required and the optimal learning environment.

Stage 4 is the assessment phase of the learning cycle. It involves determining the best method(s) of measuring the progress made and knowledge/skills acquired.

Schemes of Learning

At Isaac Newton Academy each subject area devises its own structure/proforma for Schemes of Learning. However every scheme of Learning includes the following elements:

- Key learning outcomes of the scheme and assessment objectives and levels targeted
- Duration of the scheme of work
- Core concepts explored and key words introduced
- Core content and knowledge covered
- BRIDGES characteristics and learning dispositions developed
- Harkness discussions
- Opportunities for speaking and listening, reading, writing and numeracy
- Cross Curricular links
- Range of learning activities
- Variety of grouping arrangements for students
- SMSC opportunities
- Resources required
- Use of ICT to deepen understanding and support learning
- Use of LAs
- Independent Learning activities and types

All Scheme of Learning include input from all members of the subject specialist team and are reviewed formally on completion through discussion with all who delivered them and taking into

account student feedback. All Schemes of Learning are submitted to the Leadership Team line manager for approval before delivery.

Lesson Plans and Lesson Structure

The most effective lesson planning takes place when teachers, co-teachers and Learning Assistants plan and critique lessons together, discussing learning objectives, learning outcomes, what is valuable learning, what surface and deep learning would look like, what the optimal learning activities would be, how to effectively assess progress and what expected progress would be.

At Isaac Newton Academy the INA lesson Plan proforma (see appendix) is used for all lessons of any SOL being taught for the first time. Copies of generic lesson plans are stored on the T drive in departmental folders.

The basic structure for learning at Isaac Newton Academy is a 4 part lesson:

- 1. Introduction and linking to previous/independent learning**
- 2. New learning**
- 3. Application and Consolidation of new learning**
- 4. Demonstrating learning acquired and progress made**

with a smooth flow from one part to the next. The learning cycle then continues into the Independent Learning activities set for students to practice, elaborate and explore concepts and skills introduced during the lesson, and prepare for the next lesson (see Independent Learning Policy).

The four part lesson allows the learner to learn through enquiry but also structure. It allows for a variety of learning activities in one lesson. It allows for a multi-sensory approach to learning which is likely to lead to more rapid understanding and progress. It provides for review and feedback, without which a learner cannot place the new learning within a big picture.

Every lesson has learning objectives. These are split screen – LOs for subject content, knowledge and understanding (what we are going to learn) and LOs to develop the BRIDGES characteristics (how we are going to learn it). The Bridges LOs address how the students are going to be learning and the learning habits that will be stretched in the lesson.

The subject specific learning outcomes are linked clearly to attainment targets: 3 learning outcomes are normally given, corresponding to the current levels/sub levels of the students in the class, with the most challenging representing one sub-level above the current level of the highest performing member of the class.

Stage 1: Introduction

In this part of the lesson the teacher typically

- sees the students over the threshold, establishing a focused learning environment from entry
- sets a starter activity to engage students from arrival
- recalls and checks relevant prior learning (which may involve linking to the previous lesson) – *this may be through questioning or getting students to discuss and/or record prior knowledge*
- calls on an individual or group to present their work, if independent learning has been set as preparation for the lesson*
- provides a structure for the lesson
- places the lesson in the wider context
- sets or negotiates the lesson objectives/outcomes
- poses problems and sets challenges
- motivates and engages the learners
- generates interest and stimulates curiosity.

*Every student at Isaac Newton Academy understands that such preparation for new learning is a personal responsibility and should not feel the trepidation of this author and his friends:

‘Colin, Alex and I squinted at one another, hoping that the question wouldn’t be flicked, like an angler’s fly, to land on one of our heads.’ Julian Barnes, *The Sense Of An Ending* (2011).

Stage 2: New Learning

Research indicates that multiple ways of presenting new material are most effective for deep learning: “Materials presented in a verbal, visual and multimedia form provide richer representation than can a single medium.” Hattie.

While conventional methods for presenting new information include teacher talk or demonstration, watching a DVD or ICT presentation, at Isaac Newton Academy this part of the lesson is more often led by students. Some members of the class may have prepared a presentation, it could involve students reading text individually or in pairs or groups, or it might involve learning through problem solving or enquiry.

In this part of the lesson the teacher is monitoring how students gain appreciation of this new knowledge and develop fluency. The teacher adapts the lesson as appropriate. When students do not learn from one method it is likely that the concept needs to be retaught using a different method. This part of the lesson will involve feedback from the teacher to support the students in moving from being novices to the capability stage to proficiency.

The teacher may use closed questions to check for surface understanding.

However open questions are asked to help students make sense of the information they encounter. The teacher uses appropriate technical language and ensures that all students understand subject-specific terms.

Stage 3: Application and Consolidation

New knowledge needs to be processed, tried out and practiced to become deeply understood. “We learn best by interacting with ideas, by deliberately rephrasing them and finding coat hanger to link to previous notions.” Hattie

In this part of the lesson the students experiment with, use and apply the new knowledge, gaining confidence and deepening their understanding. This may be, for example, through practice exercises, extended writing, role play, discussion, an enquiry or preparing a presentation. Collaborative learning in this stage of the lesson is very effective, but only after the students have gained sufficient surface knowledge to engage in productive discussion and learning with their peers.

This stage may be further consolidated as independent learning via deliberate practice.

In this stage of the lesson a high proportion of the question will be open. Time is allowed for the students to think about and discuss their responses to questions. Supplementary questions are asked to extend understanding. Questions are chosen that will encourage students to reflect on their thinking. There are opportunities for students to generate questions.

Stage 4: Demonstration

In this final phase of the lesson, students demonstrate their understanding of the new learning and are actively engaged in reflecting on their progress. If they have acquired deep learning they can place their learning within the ‘big picture’. They understand what they have learnt and why they have learnt it.

This is a vital opportunity for the teacher to evaluate the quality of learning that has taken place, the understanding level of each student and to gauge the starting point for the next lesson. Explicit reference is made to the learning objectives. Challenges are set for Independent Learning. The lesson ends with questions rather than a full stop- the learning is on-going!

Learning Objectives

A learning objective must frame a learning outcome. It is a tool to assist the teacher and the student in assessing what the student has learnt by the end of the lesson.

In formulating smart learning objectives, the following words and phrases help teachers to get precision:

Students will be able to:

select, give examples of, choose, link, illustrate, explain the relationship between, remember, ask questions about, prioritise, justify their thinking concerning, compare, define, join up, organise, reconsider, reflect, support a view that, evaluate, weigh up, create, construct, extract, relate, connect, explain, show the relationship between, comment upon, recall, choose questions that, create heading to, justify, explain their thinking concerning, contrast, analyse, shape...

Differentiation

“Ensuring challenge is calibrated to the particular needs of a learner at a particular time is one of the most essential roles of the teacher and appears non-negotiable for student growth. Our best understanding suggests that a student only learns when work is moderately challenging that student, and where there is assistance to help the student master what initially seems out of reach. In an effectively planned and differentiated lesson learning objectives invoke appropriate challenges that engage the students’ commitment to invest in learning, capitalise and build on students; confidence and are based on appropriately high expectations of outcomes.” Hattie

At Isaac Newton Academy lessons have differentiated learning outcomes to ensure that learning is meaningfully and efficiently directed to all students gaining the intentions of the lesson. This depends on teachers knowing where each student is and then aiming to move them beyond this point in their learning.

The Digital Planner

The digital planner has been designed to place emphasis on differentiation, the role of the LA and modifications to a department’s generic lesson plan for a particular class, to ensure that all students make progress.

Shared expectations for use of the digital planner:

- Individual generic lesson plans should continue to be written for each new SOL, labelled clearly and stored centrally on the shared drive in department folders entitled Generic Lesson plans
- The generic LPs sit behind the new-style digital planner
- The digital planner must be posted on the T drive by 8am each day
- The teacher should clearly identify on the digital planner which generic lesson plan it refers to e.g. Lesson 3 of Y8 Ethics SOL
- The digital planner must contain the following information:
 - LO & BRIDGES LO
 - Number or name of generic lesson and date
 - Details of HA/LA/HP/SEND/EAL interventions/modifications for each lesson
 - Role of the LA for that lesson (this must be completed if there is an LA in the lesson)
 - Box for the LA to make notes pre and post-lesson

- IL type & activity
- Space for notes (pre or post lesson) including modifications to IL if applicable

Lesson Observations

“Continuous learning for everyone is central to the notion of an intelligent school.” MacGilchrist, Myers & Reed

Lesson observations are perhaps the most powerful tool that teachers have for improving their practice. By observing colleagues and receiving feedback about their own lessons, teachers accelerate their progress and that of their students. The fundamental purpose of lesson observation is to improve teaching and learning. The focus of lesson observations is on the students’ learning rather than the teacher’s teaching. Peer observations are conducted to share good practice. Formal lesson observations are used to inform the appropriate targeting of staff CPD (see INA Monitoring and Self Evaluation Policy)

The most effective practitioners interpret and deliberate in light of evidence about their impact on each students’ learning, in each other’s classes, observing student learning.

The role of Parents/Carers

“If parents want to give their child a gift, the best thing they can do is to teach their children to love challenges, be intrigued by mistakes, enjoy effort and keep on learning. That way they will have a life-long way to build and repair their own confidence.” Guy Claxton.

Parents/Carers can support their child’s learning through:

- ensuring full attendance and punctuality at school
- supporting the Academy’s Code of Conduct and Positive Behaviour For Learning Policy
- supporting the Academy’s Independent Learning Policy
- supporting the Academy’s Enrichment Programme
- supporting the Academy’s Reading Policy
- discussing with their child their lessons and learning
- role modelling learning themselves as adults
- reading their child’s student organiser daily and signing it weekly
- sharing with the Academy any issues that might affect their child’s learning
- attending all parents’/carers’ meetings

- supporting BRIDGES by using interesting and complex vocabulary, encouraging their child to take up hobbies and visit places of interest, providing opportunities to question and try out new things, having conversations about things outside the home, opening discussions about progress in school
- exercising tough love which is more likely to produce children who are self-regulating, cooperative and socially responsible.

Links to Assessment for Learning Policy

“If you cannot assess the range of levels of the children in your class..how can you plan and then execute tactics which result in all engaging fruitfully?” Shayer 2007

Effective learning cannot take place without the teacher knowing where each student in the class is in their understanding. Outstanding lessons involve ongoing formative assessment throughout each of the four stages and feedback to the learners collectively and individually as to their progress. The plenary stage (stage 4) of each lesson involves more formal assessment, informing subsequent planning and teaching. This policy should be read in conjunction with the Assessment For Learning Policy.

Links to Monitoring and Self Evaluation Policy

Teachers (need) to see themselves as evaluators of their effects on students.” Hattie

The quality of teaching and learning at Isaac Newton Academy is monitored and evaluated regularly through:

- Lesson observations
- Scrutiny of lesson plans & Digital Planners
- Learning Walks
- Work sampling
- Student feedback interviews and questionnaires
- Parent/Carer interviews and questionnaire
- Analysis of assessment, test and examination results.

Links to CPD Policy

Imagine a school where you taught better simply by virtue of teaching in that school. What would such a school be like? Judith Warren Little

After ensuring outstanding teaching and learning opportunities for students, there is nothing of more importance at Isaac Newton Academy than the provision of first class training and development opportunities for all staff, as life-long learners, to improve their practice in teaching and facilitating learning. In fact the two are, of course, intrinsically linked. The Isaac Newton CPD Policy aims to enhance teachers' deeper understanding of their subject and to support learning through analysis of the teachers' classroom interactions with students.

The development needs of all staff are reviewed annually through the academy's Performance Management Policy and training, focused on the development of teaching and learning, is arranged through the allocation of the CPD budget to individual, team and academy-wide training programmes and opportunities (see the CPD Policy).

Review of the Teaching and Learning Policy

The Teaching and Learning Policy at Isaac Newton Academy will be formally reviewed by the Leadership Team annually and any revisions taken to the Board of Governors.

APPENDICES

The power of Effective Questioning

At Isaac Newton Academy, effective questioning is a key part of lessons and a powerful tool for assessing the depth of learning and extent of progress. All students expect to be required to ask penetrating questions and to respond to them. Questioning will assess the quality of in class and independent learning.

Research conducted by Susskind, tells us that teachers ask 45-150 questions per half hour, but that students answer fewer than 2 questions per lesson. 67 – 95% of teacher questions require straight recall of information; few prompt deep or searching intellectual activity. Lower order questions elicit short student responses and low participation rates and generate few students questions

Effective questioning is anchored in the context and content of the lesson. It builds on previous knowledge. It involves staff being familiar and confident in their use of Bloom's taxonomy of questioning, using open questions, allowing for wait time, supporting the learner to reformulate what he/she is saying rather than rephrasing a response for him/her and encouraging questions from students (to the teacher and their peers). Effective questions are structured in such a way

that they elicit thoughtful answers and provoke further questions. They are the building blocks of dialogue rather than its terminal point. Effective questioning enables teachers to gauge current understanding and progress made, to reshape explanations and to differentiate learning activities.

Effective questioning strategies include:

- Using a planned mix of 'conscripts' and 'volunteers'
- Lollypop sticks to randomise choice of which student should answer a question
- 'Phone a friend'
- Paired rehearsal of a question answer
- Previewing a question
- 'You are not allowed to answer this question in fewer than 15 words'
- Staging questions with increasing levels of challenge
- Using the 'no hands up' rule
- Snowballing – asking another student to respond to the answer of the previous student
- Buzz groups – where each group contributes part of the answer.

Learning through dialogue

"It is not an exaggeration to suggest that classroom talk determines whether or not children learn, and their ultimate feelings of self-worth as students. Talk is how education happens!"
Gibbons.

At Isaac Newton Academy we believe that focused dialogue in lessons is a key component in learning and in developing students' literacy skills (see Literacy For Learning Policy). Dialogue should always be:

- purposeful - planned and transacted with specific learning outcomes clearly identified and communicated
- supportive – where students help each other to reach understanding, articulate their ideas and views freely and openly, without fear of embarrassment or ridicule
- cumulative – so that students and staff listen to each other, share and build on others' ideas and together create more coherent and sophisticated responses and deeper understanding.

Although whole class question and answer has a place as a technique, it affords limited opportunity for language development for all students to demonstrate understanding and conceptual progress. Therefore in planning their lessons, teachers should create opportunity for more varied and dialogic interaction patterns to occur such as:

- structured group work
- jigsawing, using expert and home groups

- Harkness discussions and collaborative learning
- role plays
- argument tunnels
- paired or small group debate
- ICT (individual – collaborative – teacher)
- Think, pair, share

In lessons where dialogue is well planned, turns are managed by shared routines rather than through competitive bidding. Those who are not speaking at any given moment are fully engaged in the dialogue, activity listening, looking, reflecting and evaluating. All members of the class speak audibly, clearly and expressively.

Harkness Method

Philanthropist Edward S. Harkness established the Harkness method of teaching. Learners sit around an oval table and engage in a seminar style dialogue. Harkness places students at the centre of the learning process and encourages them to learn from one another. Under the guidance of an expert teacher, the instruction focuses on the ideas brought to the table by the students themselves – what happens in the class depends on what the students have done before the class begins. Thus Harkness comes with an obligation: the student has to be prepared and being prepared means having done the pre-reading/preparation and having thought about it too.

The Harkness Method insists on active, intelligent participation. It makes learning a group endeavour. It gives shy students a secure stage on which to express their ideas. It teaches more talkative students to listen as well as to contribute. From the table grows a culture of learning dialogue. The Harkness Method helps learners to analyse, critique, express and imagine.

Highly skilled Harkness learners:

- prepare thoroughly for class
- annotate, highlight or underline the text
- generate questions and passages for discussion
- create links with and between texts
- speak articulately and concisely
- listen respectfully to their peers
- refer back to comments made earlier in the discussion or course
- share information from other disciplines when relevant
- look up confusing words, concepts or references

- notice when their peers have points to make
- do not jump in to respond to every question posed
- accept and adapt divergent opinions without feeling undermined
- make perceptive comments which often move on or change the course of the conversation
- root their ideas in the text
- consistently demonstrate respect in speech and manner
- show enthusiasm for and skill in the process
- show agility of mind, clarity of leadership and sophistication of insight.

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