



STONEHILL
INTERNATIONAL SCHOOL

An Embassy Group Education Initiative

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THE STONEHILL NEWSLETTER

Inquiry at Stonehill

Volume 9, Issue 1, December 2019



**INDIVIDUAL EXCELLENCE.
COLLECTIVE PROGRESS.
Experience IB, The Stonehill Way**



What is Inquiry Based Learning?

Namaste and Greetings!

Welcome to the first edition of the Triannual Newsletter for this academic year. This Newsletter is based on “Inquiry Based Learning”, one of the core concepts of the IB Programme at Stonehill International School.



Aligned with our School’s mission and philosophy is the IB Learner Profile. These attributes are the driving force behind each and every classroom interaction. The aim is to develop internationally minded people who recognise their place in the world and make it a better place. The IB defines inquirers as learners who develop their natural curiosity.

Learners acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives. Cultivating curiosity is a necessary step with inquiry based learning, that we hope will carry on with our students’ lives, well beyond their departure from Stonehill.

Highlighted in this edition is our Early Years Learning, where ‘learning’ is about encouraging natural curiosity. Curiosity takes centre stage in our Primary School as well, where teaching and learning is focused on the inquiry method by enabling a holistic and connected learning experience for our children. Inquiry based learning in our Secondary School is focused on exploration and investigation. In the Diploma Programme, teaching and learning is focused on research, investigations and design thinking.

What makes learning at Stonehill International School unique and exciting is that inquiry based learning is connected to our students’ learning experiences. Such experiences lend themselves to further exploration and investigation(s) that engage and extend thinking, as well as finding creative solutions to complex problems.

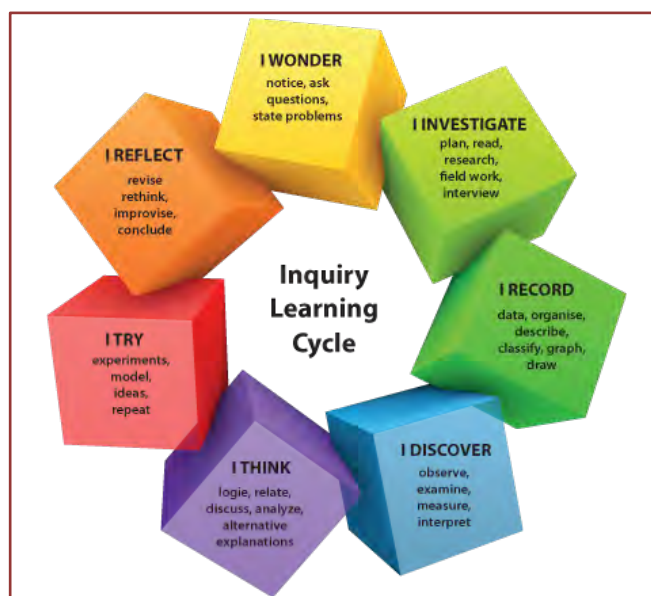


Fig 1

Brian Brumsickle
Head Of School

Perspectives on Inquiry from the Primary School

Inquiry is our mode of instruction - it supports the constructivist beliefs of the International Baccalaureate Primary Years Programme (PYP).

Grade and subject teams plan together to develop “Units of Inquiry”. However, inquiry is personal and each class takes the central idea and develops it to suit their way of thinking. Below are teams and individuals perspectives on inquiry. They are all valid and support learning and the learner.



Focus on Learning Through Play *Honor Dargan, P1/2*



Embedded within the PYP enhancements for early years education is a focus on learning through play as well as reflecting on decisions and choices made during that play. For the young learner, this gives them the agency - the voice, choice and ownership - to follow their own lines of inquiry and interest as they arise.

These may be stimulated by the co-construction of ideas shared as part of a specific unit of inquiry, but they may equally come from an interest a child has developed at home or in another setting. Reflection on play enables the learner to review their choices, vocalise their thoughts, and plan for what comes next, safe in the knowledge that their ideas are honoured and respected within their learning community.

Dedicating time to play enables the teacher to better understand and 'know' the learners in the classroom. This, in turn, results in better scaffolding of conceptual understandings, as well as building more effective and stronger relationships.

Provocation and Inquiry

Hafsa Quadri, Meenu Sharma and Sheryl Ramsey - P6 Grade Team

A provocation is a thoughtfully constructed learning engagement that sparks curiosity. Powerful provocations leave a lasting impression and help learners develop a deeper understanding of a central idea. This year, P6 explored the central idea that, “Water is essential to life and is a limited resource for many.” For this provocation, the children were divided into the following groups:

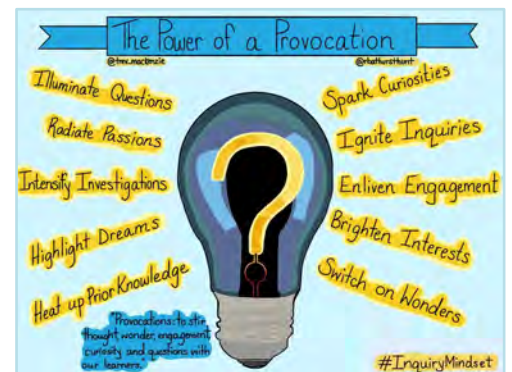


Fig:2



1. Children with unlimited water
2. Children who had to filter dirty water which was exchanged for drinking water and shared within the group
3. Group of children with 1 litre of water shared among group members
4. Children had 1 jug of water between 2 of them that they had collected from the pool area (not pool water). The pair needed to carry it down over the fields through a “War Zone” and to the classroom. They shared whatever was left in their jug.
5. Another group was given tokens and had to collect water corresponding to the amount mentioned on the tokens.
6. Children only got water at a scheduled time.

This provocation ensured the entire grade was able to understand the importance of water and the difficulties faced by people to get water.

Exploration leads to changes and new understandings



In my experience, implementing inquiry can be an intimidating and messy process. I have to be able to give up compartmentalised and controlled lessons and be open-minded and manage the planning, teaching and assessing with a degree of ambiguity while keeping the big picture in mind.

I found the following quote very interesting, “The path towards becoming an inquiry teacher is not necessarily linear, nor is it linked to the number of years one has been teaching. One of the qualities associated with inquiry teaching is actually being able to see something anew, as if for the first time” (Kath Murdoch, 2015).

As an inquiry teacher, I should be able to design tasks in which the students do the ‘heavy cognitive lifting’ (Kath Murdoch, 2015). I should be able to scaffold tasks in which learners come to an understanding by tackling a problem, and looking for connections within the data they have gathered. It is interesting to note that while there is a definite emphasis on approaches that encourage the learner to independently explore and integrate concepts, this does not exclude some carefully planned direct instruction.

P5 looked at what it meant to explore and discover new things in The Unit of Inquiry, “Where we are in Place and Time”.

Using a “See-Think-Wonder” visible thinking routine, the students delved into provocations placed around the room- bowls of spices, a piece of expensive silk, a treasure box with jewellery, binoculars, a microscope, a globe, pictures of ancient and modern explorers, scientists, astronauts, and the solar system.

In each case, they had to draw and label what they saw, make connections with the object and question its presence.



This led to rich discussions and reflections as we talked about the reasons for and the consequences of exploration- how ancient explorers went in search of treasure and spices; to find new worlds; to spread their religion and culture and to discover and explore new places and ideas.

Inquiry Based Learning in the Secondary School

Inquiry Based Learning is at the heart of all three IB programmes. But what does this approach look like in secondary school? How do we balance the learning of prescribed content with an inquiry based approach?

We know that students are far more likely to retain 'content-knowledge' if they have actively participated in the learning process. Far too much time is still spent in schools with teachers magically trying to convey information to students in order for them to regurgitate it back in tests and exams. Teachers naturally feel under pressure to 'cover the content' of their courses so that students perform well in assessment tasks.



The pedagogical shift that takes place in well-run IB classrooms is to engage students in an active process of learning the necessary material. Information is available to students in multiple formats: textbooks, websites, YouTube videos, peers, teachers, and all of our students will learn in different ways and at different speeds. Our teachers work to design learning experiences that provide students with clear learning outcomes alongside a variety of ways to access the material. This is one way that we balance an inquiry based approach with mandatory content learning.

Students are also able to engage in a more authentic inquiry based approach in various subjects throughout the Middle Years Programme (MYP) and Diploma Programme (DP). The DP requires students to work through an Extended Essay process that replicates university-level research, while MYP subjects such as Design, Arts and Individuals and Societies, have specific criteria built into their assessment structure that require students to engage in the inquiry process.

The ultimate challenge for IB schools, however, is to help students develop the necessary Approaches to Learning (AtL) that will allow them to engage independently and collaboratively in inquiry based projects. Research Skills is one of the five AtL categories and teachers spend a great deal of time helping students with information literacy skills and media literacy skills. Once our students become strong learners in these areas, the sky really is the limit in what they are capable of learning.

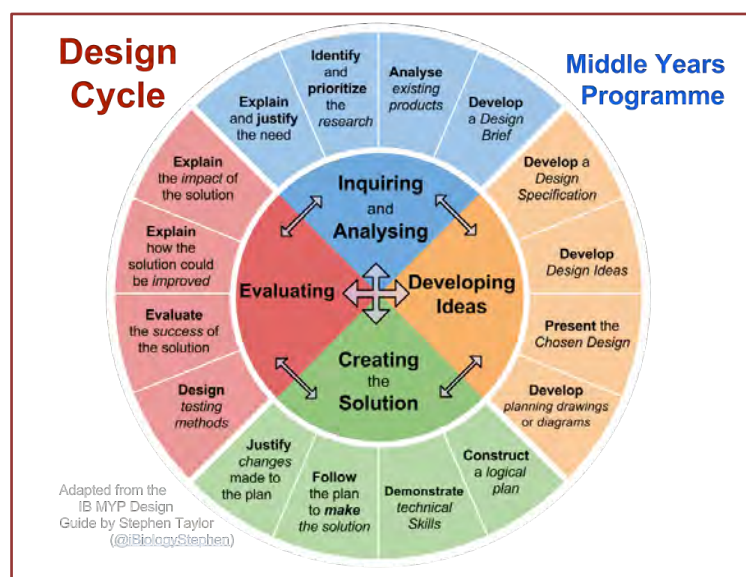


Fig: 3

Middle Years Programme Focus

The mission of the International Baccalaureate is to create lifelong learners. Our constant endeavour as teachers is to create an environment where our students learn how to learn. The Middle Years Programme (MYP), by design fosters and deepens inquiry. Each subject starts by building fundamental knowledge in the subject group and extended students' understanding of what they know and what they can do.



Sustained inquiry frames the written, taught and assessed curriculum. In this approach, prior knowledge and experience to establish the basis for new learning, and students' own curiosity, together with careful curriculum design, provide the most effective stimulus for learning that is engaging, relevant, challenging and significant. Here's a look at some examples. You can scan the QR codes to view some of the students' performances.



The Language and Literature course allows students to express their ideas and opinions. Protest poetry is one way of doing this. Students explored a variety of different poems that challenged their ideas. By analysing the elements that make up successful performance poetry such as language, vocal expression and body language, Grade 9 and 10 students were able to write and perform their own protest poetry. The result was an engaging and thought-provoking performance which encouraged an audience of peers to consider their own ideas and opinions.



Arts and design subjects have the 'inquiry cycle' built into the teaching and learning process. The students create products of their learning and follow the inherent design cycle of creating and reflecting. They learn to set up an artistic intent and understand when they reach a point of realization.



The Programme culminates with the Personal Project. The Personal Project encourages students to practise and strengthen their approaches to learning (AtL) skills, to consolidate prior and subject-specific learning, and to develop an area of personal interest. The Personal Project provides an excellent opportunity for students to produce a truly personal and often creative product/outcome.



MYP projects are student-centred and age-appropriate. They enable students to engage in practical explorations through a cycle of inquiry, action and reflection. They also help students develop the attributes of the IB learner profile, provides them with an opportunity to demonstrate AtL skills developed through the MYP and fosters the development of independent, lifelong learners.

Jitendra Pandey
MYP Coordinator

Diploma Programme Focus

A critical component of both the core and every subject group in the Diploma Programme (DP) is 'Inquiry'. This school-within-a-school approach ensures every student creates ownership and accountability for learning.

Student-directed learning (SDL) that is driven by Inquiry is reflected in all the subjects in the DP and its core components: The Theory Of Knowledge (TOK), Extended Essay (EE) and Creativity, Action & Service (CAS).

The TOK course examines the nature of knowledge and how we know what we claim to know. It does this by encouraging students to analyze knowledge claims and explore questions about the construction of knowledge. The task of TOK is to emphasize connections between areas of shared knowledge and link them to personal knowledge in such a way that an individual becomes more aware of his or her own perspectives and how they might differ from others.



This andragogical approach of "Inquiry" helps learners to be responsible and involved in the planning and evaluation of instruction. It uses students' own life experiences as a rich source of learning. Learners prefer learning that is problem-centred rather than content-oriented.

Students follow the design thinking approach while working on their Extended Essay, CAS projects, Group 4 project in the sciences and most of their internal assessments. DP students are encouraged to come up with their own topics for research as a part of their Extended Essay and investigations. Learning through Inquiry forms an Internal motivator ensuring sustained and engaged learning.

All subjects in the DP are driven by Inquiry. Taking an example of Group 5-Mathematics, Inquiry is seen through, Confirmation Inquiry, Structured Inquiry, Guided Inquiry, and Open Inquiry. Confirmation Inquiry allows students to "confirm" the results on their own as seen in modelling real-life situations using functions. In Structured Inquiry, the teacher poses a problem with the method without providing the solution as could be done in the teaching of applications to circular functions and trigonometry. Guided Inquiry is often practiced with the option content.



Open Inquiry is seen in the Internal Assessment, the exploration where learners create and follow their own line of inquiry. Be it using advanced mathematics to solve a crime scene investigation or studying their own electrocardiogram, Inquiry-driven classes in Maths often see activities like jigsaw problem solving, role-playing, discussions, relays, matchmaking, Group preparation, discussion-vote, silent debates, card sorting, speed questioning, jeopardy and many more.

Inquiry together with the well-structured Diploma Programme curriculum provides the most effective stimulus for learning that is engaging, relevant, challenging, and significant. This approach, in turn, helps us inculcate the approaches to learning that will result in a love of learning beyond school.

Manpreet Kaur
DP Coordinator

Inquiry in the Boarding

Inquiry Based Learning is something that not only stimulates the free-thinking mind and creative spirit of our students, but also teaches them to develop curiosity and a deeper understanding of the world around us. At Stonehill Boarding, keeping in mind the vision and mission of the school along with the IB philosophy, we initiate and plan regular activities that promote this approach. These activities encourage children to ask questions and find answers through research so that they can cultivate a lifelong desire to learn.



Over the past year, we explored the inquiry-based learning approach through our sustainable garden project. We created our very own 'boarding garden' to grow vegetables that we later used in the boarding kitchens. Led entirely by the students, this activity gave them a complete hands-on experience.

Under supervision, the students measured plots, tested soil samples and made a list of tools they would require to start this project. They were asked to look into the different types of methods that could be used in gardening and after delving deep into environment research, they decided to create a 100% organic garden.

They then explored the different types of manure they could use, the best way to irrigate the garden and the right time of the year to plant and harvest their produce. With some help, we set up a drip irrigation system for the garden.

The students thoroughly enjoyed getting their hands dirty, planting seedlings and watering and weeding the garden. This activity gave the students a chance to bond with each other, while learning about the environment outside the classroom.

The organic garden successfully led to heaps of fresh green vegetables, like tomatoes, cucumbers and chillies that we proudly donated to the kitchen. Students are excited to continue this project and are looking forward to a fresh harvest.

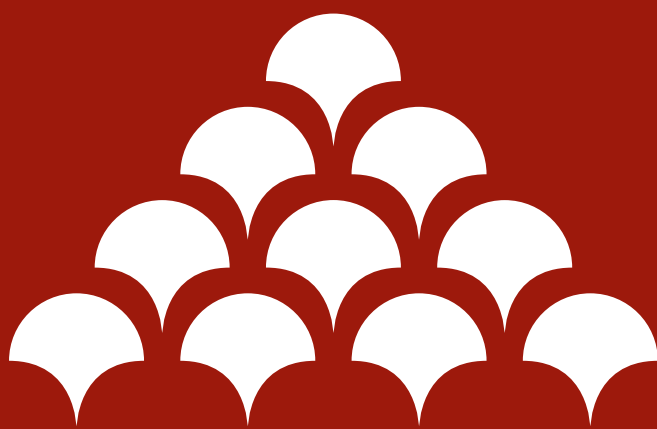


Another way our students incorporate inquiry based learning is through the boarding outdoor programme. On weekends, they undertake activities such as bird watching, hiking, trekking, nature walks, and visits to different natural parks. We encourage students to explore nature and inquire about the different plant species, birds and insects. After these activities, they conduct collaborative research to identify the different species, learning about nature in the process.

Glen Johnson
Head of Boarding

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