

# IBDP

# NEWSLETTER

*Grade 12*

JULY - AUGUST

Volume:9 Issue:1



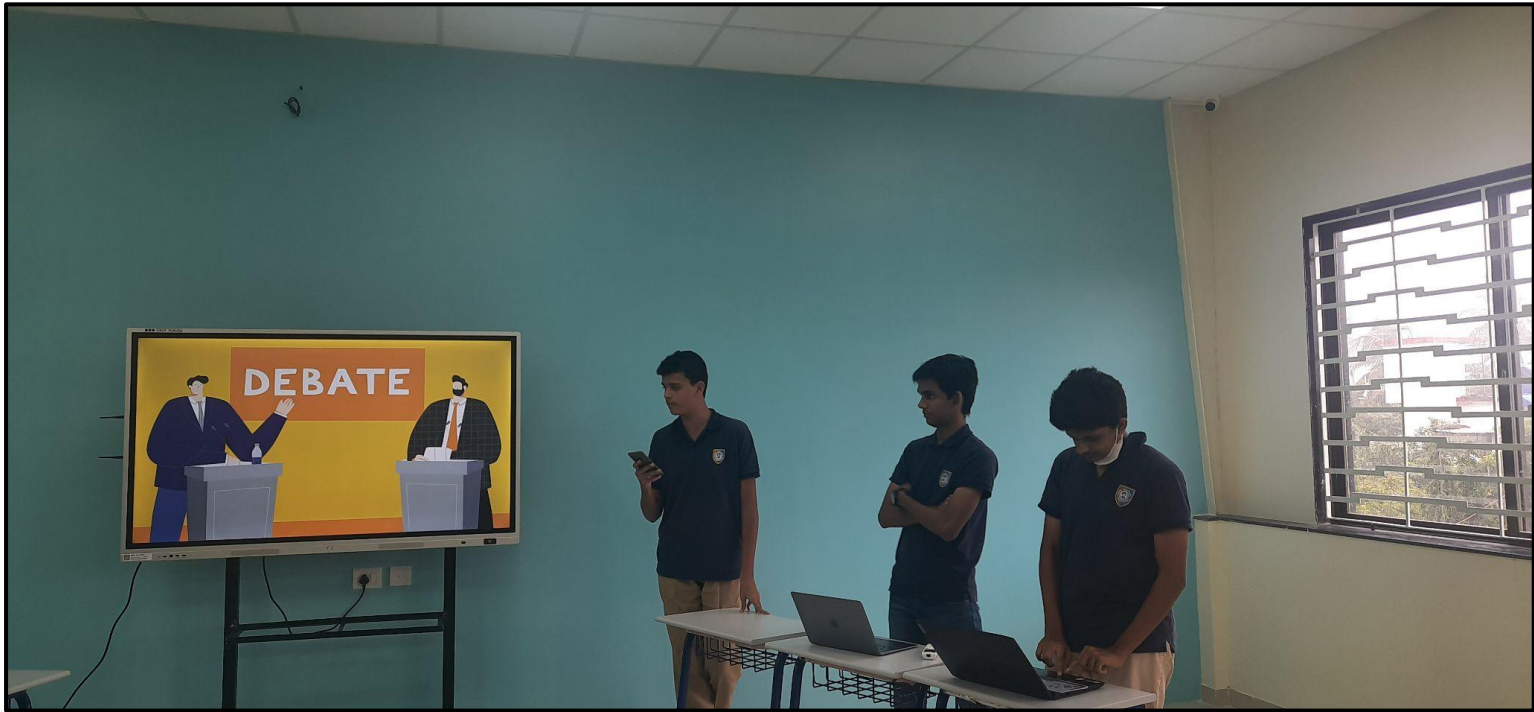
## EVENTS

- **Dance session:**  
5th August
- **MUN :**  
19th and 20th August
- **Visit to artist's studio:**  
24th August

## ENGLISH A: LANGUAGE AND LITERATURE

Students began the new academic year by revising the plot and themes from *Americanah* by Chimamanda Ngozi Adiche. After completing the novel, they explored through graphic organisers various combinations they may utilise for their Individual Oral. Working on the Paper 2 text - *Shadow Lines*, they engaged with various concepts like Postcolonialism, the Stream of Consciousness Narrative, Coming-of-Age novel and Postmodernism. Furthering their study of Postmodernism, students analysed various non-literary texts that explored the value of journalism, the text type of electronic and digital media. They debated on whether social media content should be vetted, is hate speech also free speech and should defamation be a clause for journalistic endeavour. While studying propaganda, they worked on a leaflet and wrote a Paper 1 style response to the stimulus text.

The HL students worked on their HL essay and have completed it. They have peer reviewed the final drafts and marked each other on the assessment criteria to understand it.



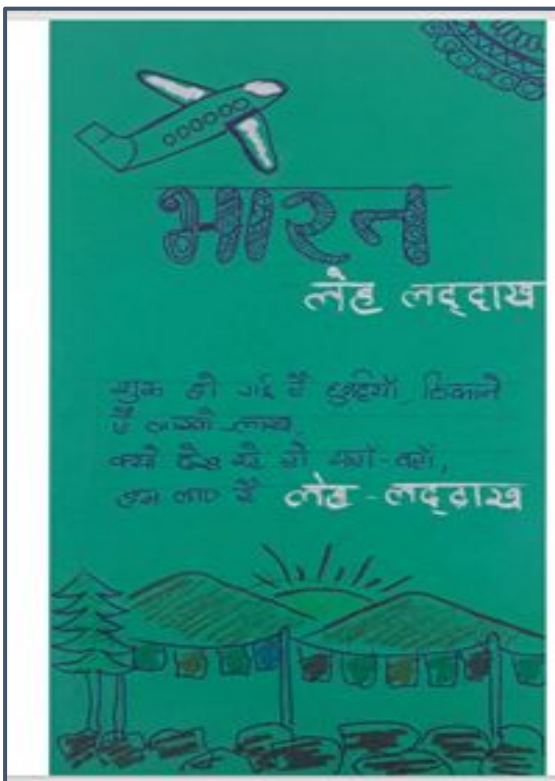
Debates on journalism and social media



Features of propaganda (WS)

# HINDI B

Students started the new academic year with the recap of the concepts and topics completed during the first year. They explored topics like migration, rituals and past stories under the theme of 'Experience' through various videos, visible thinking tools and graphic organisers. They also sharpened their receptive skills by reading various articles, interviews, blogs and listening to audio followed by comprehension worksheets. They learnt the art of proposal writing and practised the text done previously. Students enjoyed the activities and kahoot sessions based on 'मुहावरा और कहावत' and vocabulary.



### प्रस्ताव -लेखन गतिविधि

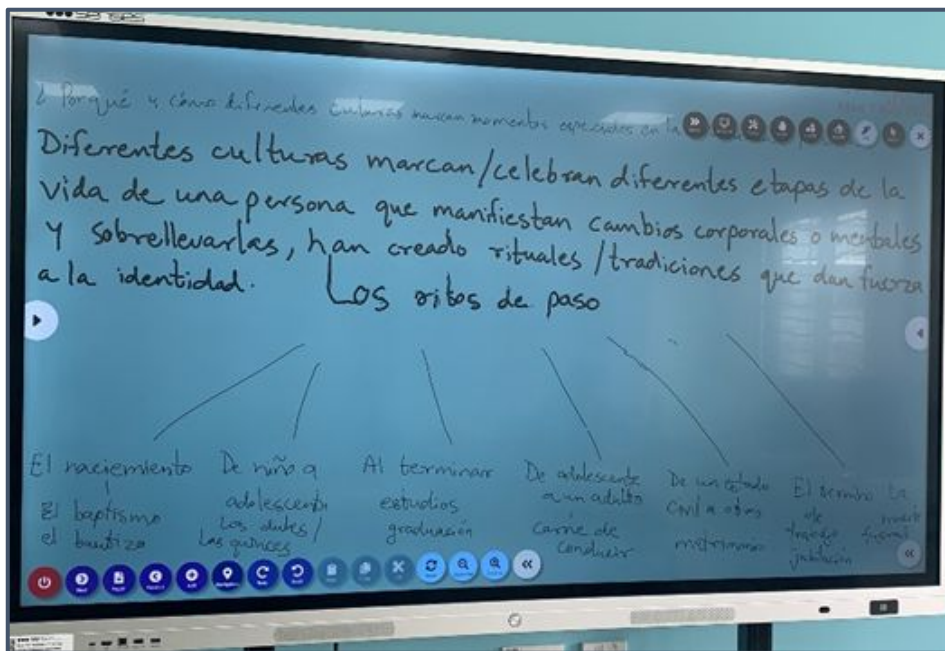


## SPANISH B SL

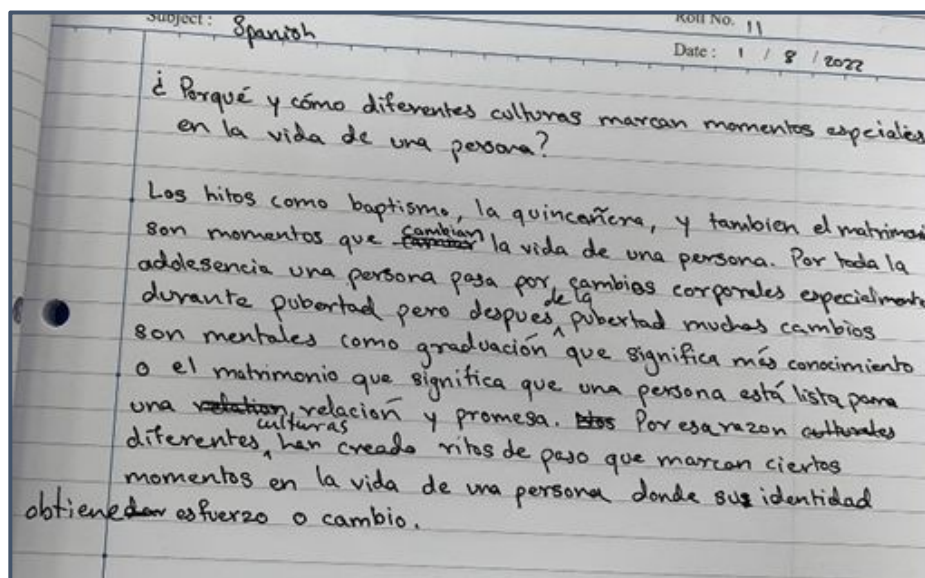
July and August were months filled with activities for students. They began with the sub-topic 'Rites of Passage' under the theme 'Experiences'. By identifying the various stages in a person's life, students thoroughly enjoyed exploring the concepts of birth, baptism, passage to adolescence and then to adulthood, matrimony, retirement and death. They reflected while comparing the different rites of passage celebrated in Hispanic and their own culture. They familiarised themselves to the various rites naming a few, initiation of the bullet ants in Sateré-Mawé, a Brazilian tribe, Bar and Bat Mitzvá in the Jewish religion, The sweet sixteen in the US and Las Quinces in the Hispanic countries with the help of various written and spoken texts, graphic organisers, and worksheets. They learned 'Speech Writing' as a new text type and expressed their views on the importance of celebrating these important moments that mark our lives.

Moving further, our ongoing theme is 'Sharing the Planet' and students are analysing the causes and effects of climate change in the Hispanic countries. So far, they have evaluated themselves and their peers with the help of a rubric provided for different tasks done in the class.

**Arriving at the central idea of the topic-**



**Student's response on the importance of celebrating different rites of passage**



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## SPANISH AB INITIO

Students of Spanish AB Initio started the year with a week of revision sessions in a flipped classroom, where they planned games and activities for their classmates. Continuing with the vocabulary recap, sessions for all sub-themes of social organisations were conducted. Furthermore, students have been exploring the new theme of human ingenuity, covering the sub-themes of transport, mediums of communication, technology and entertainment. Skill-based practice of concepts is undertaken in our regular classes counting on speaking, listening, reading, and writing as per the requirements of the IB board.



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## BUSINESS MANAGEMENT

The students continued with the unit of Finance in the new academic year by evaluating the financial positions of various business organisations by calculating the profitability, liquidity and efficiency ratios for the firms..They practised exam-style questions in the form of worksheets on the topics of 'Ratios and Cash Flow Forecast'. As an introduction to the topic of 'Investment Appraisal' students saw examples of various Hollywood movies' cost of production and their world box office sales to help them to better relate to the concept of investment.



Let's consider the example of Hollywood movies

Movie	Cost to produce	World Box office sale
THE 13 <sup>TH</sup> WARRIOR	(\$160million)	(\$61.7 million)
AVATAR	(\$500 million)	(\$2.78 billion)

\*3 weeks to break-even.

As an extension task to the concepts of innovation and strategy a video case study was explored by students on 'Building the World's Tallest Skyscraper:Jeddah Tower' where they evaluated the financial viability of the project for the various stakeholders involved.

For the topic of 'Leadership and Management', as a part of the IB learner profile- be principled, students were given a research task to identify someone in the media (a politician or a business leader) who has demonstrated a lack of moral principles and discuss the actions of that person and suggest what could have been done better instead. Post the presentation, brainstorming sessions were conducted to understand the different leadership styles and how ethical considerations and cultural differences influence leadership and management styles in an organisation.

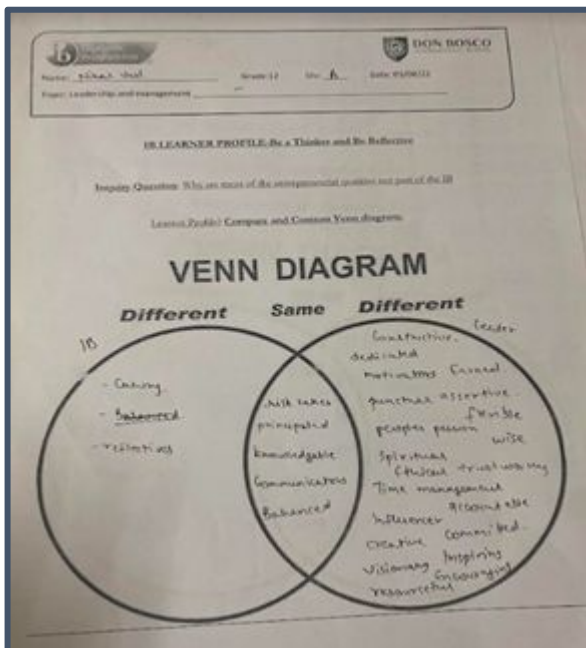


**Businessman-Nirav Modi**



**Political Leader-Donald Trump**

As an extension task students brainstormed a compare and contrast venn diagram on the inquiry question, “Why are most of the entrepreneurial qualities not part of the IB Learner Profile?” This task was linked to the IB learner profile of being a thinker and being reflective.



For the topic of ‘Functions and Evolution of Human Resource Management’ the students created a mind map on the board stating the roles and responsibilities of the Human Resource department. They also saw interesting videos on the employee’s recruitment process at Apple and how Steve Jobs hired people.

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## ECONOMICS

This academic year began with the students of economics enthusiastically debating and discussing the Macroeconomic topics of ‘Macroeconomic Objectives’, ‘Demand Management’ (demand-side policies)— monetary policy and fiscal policy and supply-side policies

For the study of a real world example the students watched the documentary ‘Inside Job’ based on the 2008 global economic meltdown. They discussed how monetary policy issues, supply side policies, huge wage disparities lead to the financial crisis of 2008. News articles based on inflation, unemployment, monetary and fiscal policy were also discussed during class time.

### **Class activity on business cycle:**

**How employment levels change for workers as the economy moves from a recession to a peak period**



Natasha D'Costa explains how food inflation is affecting the cost of living globally.



## PSYCHOLOGY

Students of psychology started year 2 by running a pilot for their IA. The pilot was conducted on students from their class. After the successful completion of the pilot, students completed the data collection for their IA, with students of DP year 1 as their sample. Students are now in the process of completing the IA commentary.

This was followed by a recapitulation and practice of research methods and practice of Paper 3 pattern questions.

Curriculum continuation began with the core: Sociocultural Approach. The topics covered in this were the 'Individual and the Group', 'Cultural Origins of Behaviour and Cognition', 'Cultural Influences on Individual Behaviour'.

Students were encouraged to make mind maps to summarise theories and concepts. Use of flipped classrooms to revise topics was also executed.



Student explaining the concept of SIT (Social Identity Theory)

## ENVIRONMENT SYSTEMS AND SOCIETIES (ESS)

Climate change is a major global challenge today, and the world is becoming more vulnerable to this change. Mahatma Gandhi said, “Earth provides enough to satisfy every man’s need, but not any man’s greed.” With this view, students of grade 12 studied the chapter of climate change- its causes and impacts. They came down to the conclusion that we must remodel our outlook and achieve the goal of sustainable development. By adopting clean technologies, equitable distribution of resources and addressing the issues of equity and justice, we can make our developmental process more harmonious with nature.

They also worked on their research question, background research and data analysis for their IAs.



## BIOLOGY

The students began this year by revisiting concepts of inheritance and punnet square, and learning how to apply those to dihybrid inheritance and polygenic inheritance through various problems and real life situations. They were introduced to the principles of different biotechnological techniques and their applications like DNA fingerprinting in forensic and paternity suit investigations. Students gave their perspectives on techniques of gene modification and cloning.

3.5.52 Analysis of examples of DNA profiles.

### DNA Profiling in forensics

DNA Profiling can be used to identify suspects from trace DNA evidence. It can also be used to eliminate the innocent from the investigation.

In this case, a lot of blood was left at a crime scene. Who was the perpetrator?

A = victim  
B = unknown blood at scene  
C = suspect 1  
D = suspect 2

Sample	Standard	Lane 1	Lane 2	Lane 3	Lane 4
1	—	—	—	—	—
2	—	—	—	—	—
3	—	—	—	—	—
4	—	—	—	—	—
5	—	—	—	—	—
6	—	—	—	—	—

[http://www.aflocher.net/curricula/biotech/strategies\\_and\\_biotechnologies/presentation](http://www.aflocher.net/curricula/biotech/strategies_and_biotechnologies/presentation)

### Polygenic Inheritance of Skin Colour

Polygenic inheritance gives rise to continuous variation in the phenotype.

Globally we observe continuous variation in skin colours. Skin colour is the result of pigments, such as melanin, being produced - the darker the skin, the greater the protection against the harmful effects of the Sun.

Skin colour is thought to be controlled by up to four separate genes, each with their own alleles. This is too large for us to deal with simply, so we'll look at two genes with two alleles each.



Watch this TED Talk and think about the following questions:

- What is melanin and what purpose does it serve?
- What skin tone were early humans most likely to have? Why does this change with latitude as humans migrated towards the poles?
- What are the relative advantages and disadvantages of light and dark skin, depending on climate?

**TOK:** Why have people historically discriminated based on skin colour? How could the Natural Sciences educate people to think twice about their prejudices?

How labrands broke the barrier of skin colour, via TED. [http://www.ted.com/talks/labrands\\_broke\\_the\\_barrier\\_of\\_skin\\_colour](http://www.ted.com/talks/labrands_broke_the_barrier_of_skin_colour)

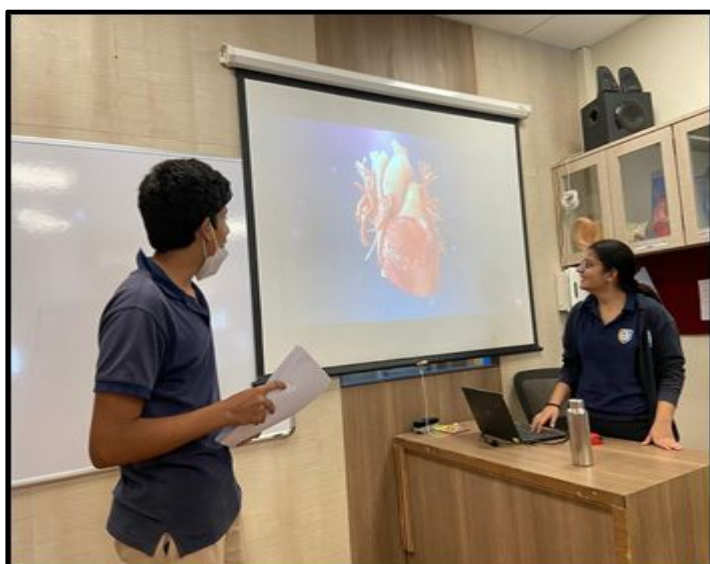
i-Biology

Snippets of the images used in class to initiate class discussions

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They built on their previous knowledge of the digestive system, circulatory system and respiratory system and delved into further details of nutrient absorption, electrical conduction in the heart and the different pneumocytes in the lungs.



Students studying the model of the heart and making their own descriptive narrative for a 'Structure of the heart' video.

## CHEMISTRY

We started the academic year by revisiting the topic 'Chemical Equilibrium'. Then the topic of Organic Chemistry was introduced. To test their understanding on functional groups, a Kahoot Quiz was conducted as a plenary.



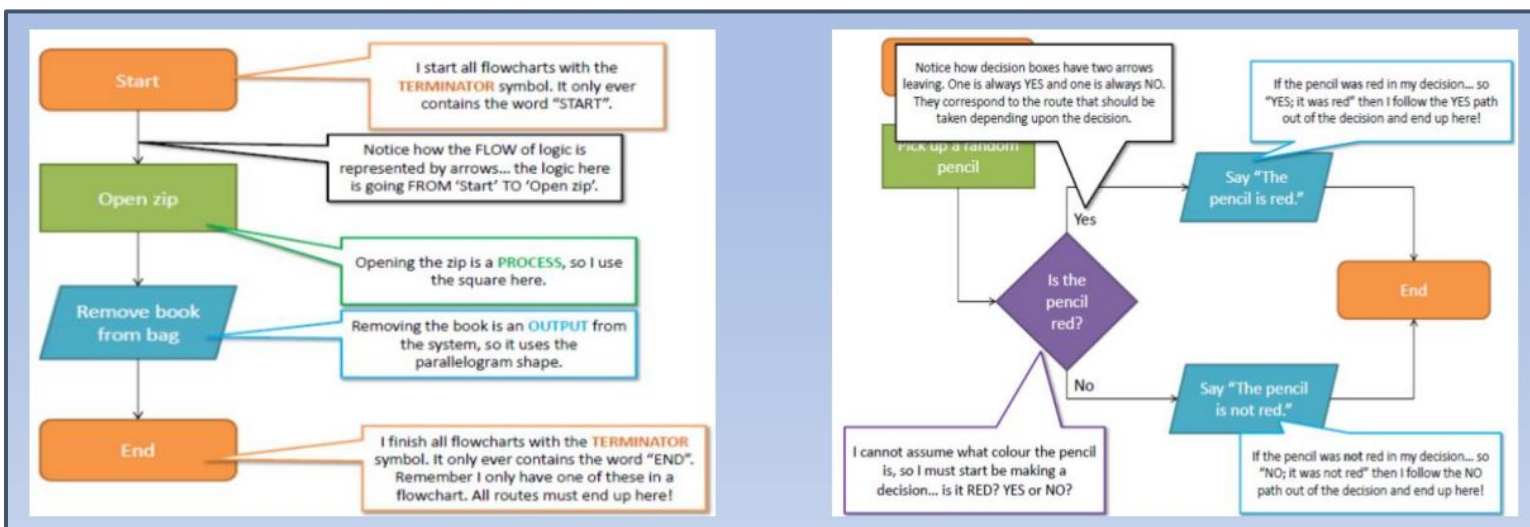
Subtopics of 'Markovnikoff's Rule' and 'Stereochemistry' was taught by Ishaan Umapathy and Natasha D'costa respectively as part of peer teaching. Students had a class test on Organic Chemistry.



Acids and bases was the last topic to be introduced. Students did a research work on ‘Flue-gas Desulphurization’ and ‘Hydrodesulfurization’ and presented it in class.

## COMPUTER SCIENCE

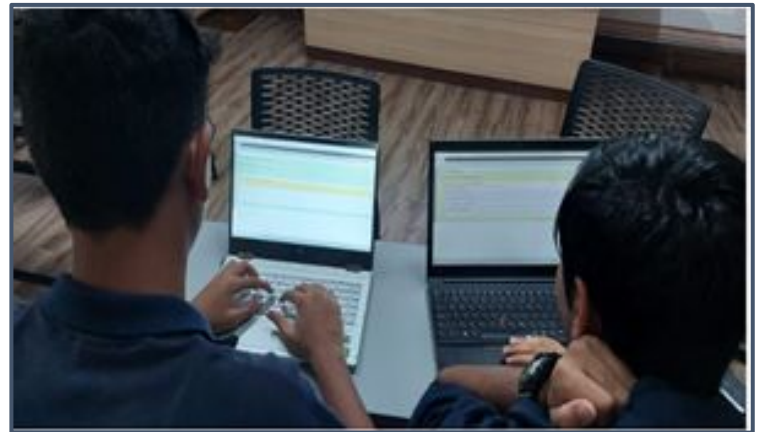
The academic year started with the broad topic ‘Computational Thinking Skills’. To understand this term, students analysed how this skill is required in computing, programming, and digital making. Before they can use a computer to solve problems, they need to pick those problems apart and decide how to approach them. Students started using the JAVA programming language to learn and practice computer science principles from data types to objects. Last academic year students learned the concept of how to create algorithms and flowcharts for a given problem. Recapitulation of previously learned concepts was done before starting the programming with JAVA.



Till date students have completed programs related to variable types, strings and calculations, – IF (Selection) & random numbers, FOR loops (Iteration) ,WHILE loops (Iteration) , Arrays (Linear & 2D).

```
PalindromeExample - circumferenceofcircle
Class Edit Tools Options
PalindromeExample x
Compile Undo Cut Copy Paste Find... Close Source Code
class PalindromeExample{
public static void main(String args[]){
int r,sum=0,temp;
int n=454;//It is the number variable to be checked for palindrome

temp=n;
while(n>0){
r=n%10; //getting remainder
sum=(sum*10)+r;
n=n/10;
}
if(temp==sum)
System.out.println("palindrome number ");
else
System.out.println("not palindrome");
}
}
```



```
tablefrom1to10 - patterns
Class Edit Tools Options
pascaltriangle x tablefrom1to10 x
Compile Undo Cut Copy Paste Find... Close Source Code
public class tablefrom1to10
{
public static void main(String args[])
{
int max=10;
for(int i=1;i<=max;i++)
{
for(int j=1;j<=max;j++)
{
System.out.print((i*j)+ "\t ");
}
System.out.println();
}
}
}
```

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## PHYSICS

The students began the academic year with the revision of the concepts on 'Interference' and 'Diffraction in Waves'. They were introduced to the AHL topics on 'Wave Phenomena', 'Young's Double Slit Experiment', 'Multiple Slit' and 'Diffraction Grating Interference Patterns', and the students did an activity to find the width of a human hair. The students were also introduced to the concept of resolution. The students studied the Doppler's effect in both light and sound and did a prescribed practical on velocity of sound using audacity software. The students were also introduced to the topics in 'Electricity' and 'Magnetism' and also did a practical on refraction of light through a glass block. A physics and chemistry collaboration class was held on types of cells in which the students were introduced to different types of cells and they measured the emf of the cells.



Students understanding resolution Students doing a simulation practical on Kirchhoff's law

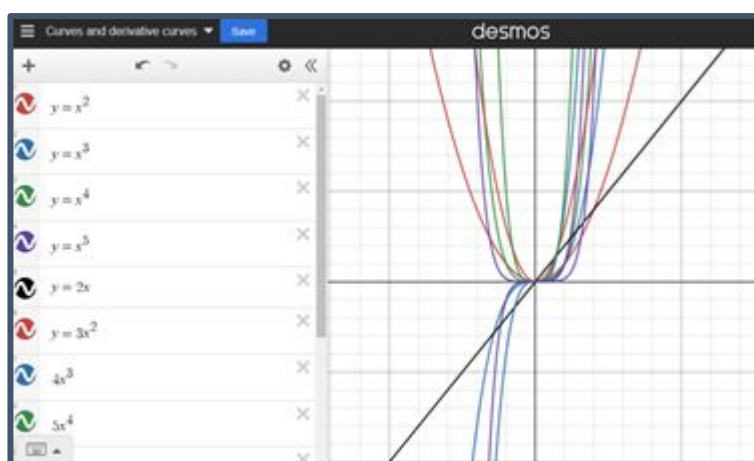
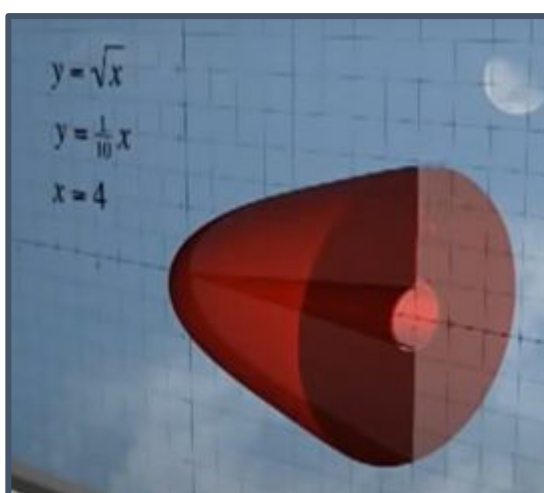
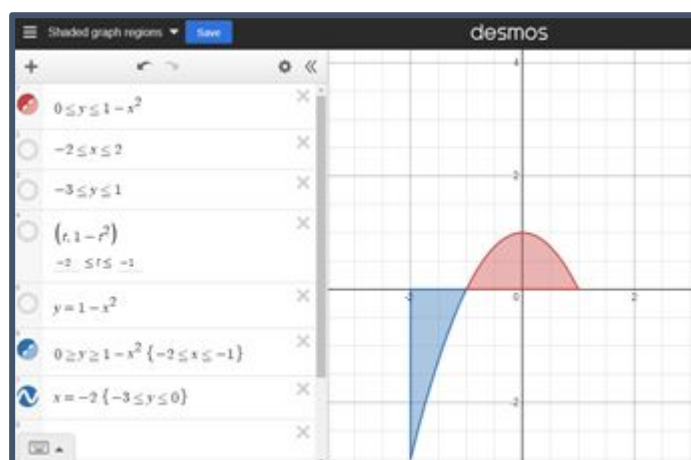
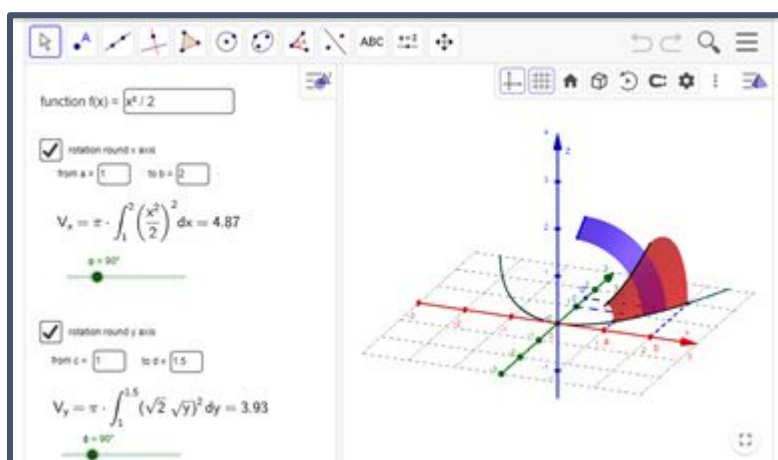


Students doing practical on refraction of light through a glass block

## MATHEMATICS: ANALYSIS AND APPROACHES(AA)

In these months, the students continued and completed the units on calculus. Practice sets from multiple textbooks and worksheets were given. Additionally, most of the students continued to work on their IAs.

Activities in class included plotting graphs on graphing softwares to understand 3D visualisation and improve their spatial sense.

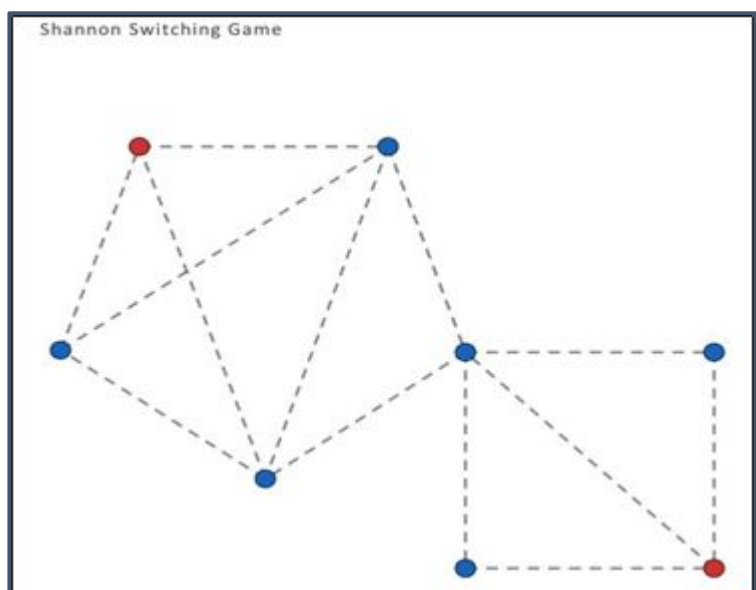
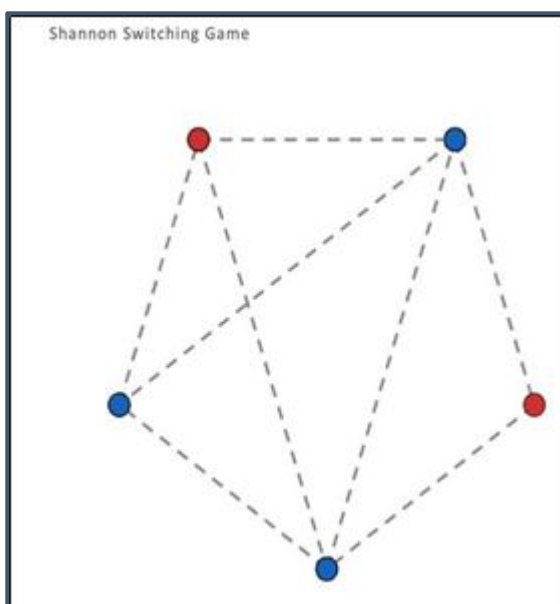


Some of the images demonstrated in class

## MATHEMATICS: APPLICATION AND INTERPRETATION(AI)

Students began the year 2 curriculum by exploring the topic of 'Vectors'. This helped them understand the significance of vectors in determining the position, change of position and force in two and three dimensional space. They also learnt about matrices as a form of notation which allowed them to show the parameters or quantities of several linear equations simultaneously. HL students were introduced to Graph Theory through a game called 'Shannon Switching' game. This concept allowed them to apply their knowledge of matrices and developed their knowledge of Graph Theory algorithms in practical contexts. They also reflected on how these algorithms allowed them to model complex – real world problems.

During the month of August, the students learned about a systematic approach to hypothesis testing which allowed them to make statistically valid inferences about the population.

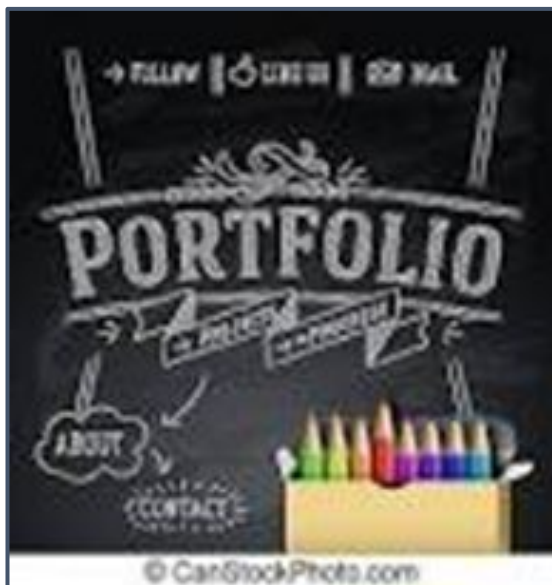


Shannon Switching game to develop strategies to win the game as CUT or SHORT and also to develop theories about what qualities of the graphs are needed for there to be a winning strategy for a particular player.

## VISUAL ARTS

Students began their year two by planning and composing their slides for the comparative study. With respect to the art making practice, they explored coloured inks (photo inks) and experimented with water colour paper materials.

With inks being a water based transparent medium, they created experiments with respect to their ideas and intentions. They are in the process of developing their portfolio with these experiments.



## THEORY OF KNOWLEDGE (TOK)

### AOK History

The new academic year began with students exploring Areas of Knowledge: History and Art.

1. *Epistemological question 'what is history?':* To introduce AOK, students watched a short film designed by Richard Jones Nerzic. They then discussed the KQ How do historical knowledge compare with other types of knowledge? This was followed by a pair activity where students took up a piece of history and analysed diverse TOK perspectives, interpretation of the event, effect of hindsight etc.
2. *What's worth remembering?:* Students viewed a TED talk by the editor of the New York Times obituary page 'How we are honouring people overlooked by history'. This was followed by learners reflecting through a VTR – 321 Bridge and gaining understanding about 'what is worth learning' in history and that in selecting one thing and not another there will always be events, peoples and perspectives that are left out and/or marginalised. (KQ: Why does history elevate a particular perspective to a position of predominance and ignore other perspectives?)
3. *The battle over History:* Students viewed a clip from the movie 'Lincoln' (Spielberg, 2012) and the news feed on A Virginia judge has blocked the city of Charlottesville's effort to remove the [Confederate statue](#) that sparked a deadly [white nationalist rally](#) in 2017 and a VOX article on Lost cause. Through the analysis of these RLS students discussed and gained understanding on how the statement 'history is written by the victors' is flawed.

### AOK Mathematics

Several sessions were conducted by Ms. Mimansa Vahia on the Nature and Formation of Mathematical knowledge. Students explored two KQs- "How does the acquisition of mathematical knowledge differ from that of other fields of knowledge?" and 'Is mathematical reasoning different from scientific reasoning or reasoning in other areas of knowledge? 'What is meant by the term "proof" in mathematics, and how is this similar to, or different from what is meant by this term in other areas of knowledge?' Through an interactive discussion Ms. Mimansa encouraged students to reflect on math real life examples, its nature, formation and limits of mathematical knowledge. Students developed arguments for and against various issues surrounding the formation of mathematical knowledge.

### AOK Natural Sciences

Each student brought a scientist or researcher and their contribution to the field of scientific knowledge to class in order to discuss the nature of the growth and development of scientific knowledge and to compare diverse perspectives on how knowledge develops in the natural sciences. Thereafter, students discussed KQs. 'What is scientific knowledge and how is it produced? Students explored the idea of a paradigm shift, especially as it was put forth by Thomas Kuhn in his 1962 book 'Structures of Scientific Revolution'.









**Activity 1 – 15 mins Padlet**

**Each student in their group discuss about their scientist/ researcher and their contribution in the field of scientific knowledge**

- 1. What counts as knowledge in science? ( The scientist discovery/ invention specified)**
- 2. How that knowledge was produced?**

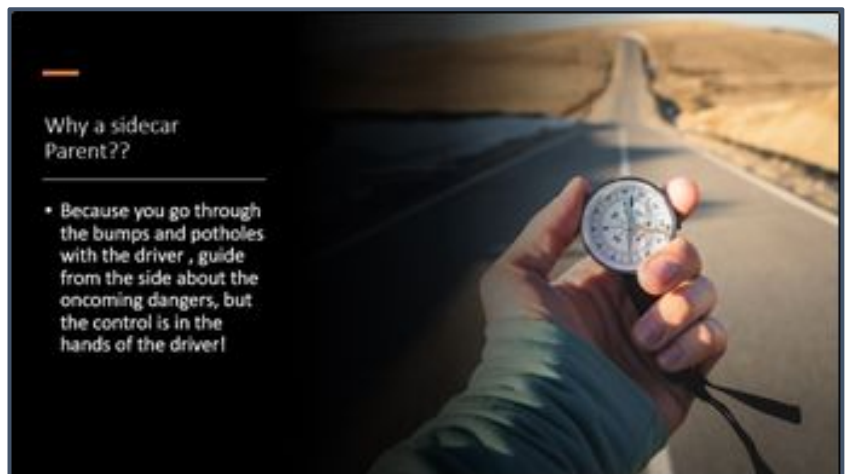
INVENTORS AND THEIR INVENTIONS-1			
<b>SUBMARINE</b> Invented by: Italian, French 	<b>CALCULATOR</b> Invented by: Italian 	<b>PIANO</b> Invented by: Italian 	<b>THERMOMETER</b> Invented by: Italian 
<b>ROLLER SKATES</b> Invented by: Italian 	<b>HOT-AIR BALLOON</b> Invented by: Italian, French, English and American 	<b>RAILWAY LOCOMOTIVE</b> Invented by: Italian 	<b>STETHOSCOPE</b> Invented by: Italian 
<b>BICYCLE</b> Invented by: Italian, French 	<b>COMPUTER</b> Invented by: American 	<b>SEWING MACHINE</b> Invented by: Italian 	<b>GLIDER</b> Invented by: Italian 
<b>TYPEWRITER</b> Invented by: Italian 	<b>TELEPHONE</b> Invented by: Italian 	<b>PHONOGRAPH</b> Invented by: Italian 	<b>LIGHT BULB</b> Invented by: American 
<b>ELECTRIC IRON</b> Invented by: Italian 	<b>FOUNTAIN PEN</b> Invented by: Italian 	<b>CAR</b> Invented by: Italian 	<b>MOTORBIKE</b> Invented by: Italian 
<b>KODAK CAMERA</b> Invented by: American 	<b>DIESEL ENGINE</b> Invented by: Italian 	<b>RADIO</b> Invented by: Italian 	<b>X-RAYS</b> Invented by: American 

## COFFEE WITH ME

The first Coffee with Me session of this year was facilitated by Ms. Ranjani Ravi as she guided the parents through her session on ‘Managing my Child’s Stress’. As grade 12 students are dealing with deadlines, homework, essays and studies, their increasing levels of stress become a cause of concern for both parents and teachers. Through Ms. Ranjani’s session, she helped the parents understand their teenager’s perspective and differentiate bad stress from good stress. Through an interactive Q & A, she helped parents identify methods and ways that can be used to support the students and help them achieve their goals and success.



Snippet's of the presentation shared with the parents



## EXTENDED ESSAY

A session was conducted for grade 12 students on Criteria E: Engagement for the students. The session started with introduction to Ikigai and an individual activity where students had to fill in the template to realise their purpose in life.



**IKIGAI**

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The session touched upon the marking criteria and the students had to select the phrases from the highest mark band to remind themselves while writing the reflection on the RPPF form. Ms. Aarti also highlighted some guiding questions for the three reflection sessions.

The students have collected the primary and secondary data as per their respective methodology. The students have started working on the findings and analysis of the collected data. They had to reach the first EE Goalpost and they have submitted the work to the supervisors.

## **CAS (CREATIVITY, ACTIVITY AND SERVICE)**

### **DBIS MUN**

The students of Don Bosco International School, organised an interschool United Nations simulation conference; with students donning the role of a delegate and representing the countries from all over the world! This year's MUN was special at DBIS, it was led by the students for the students on 19th and 20th of August. The organising committee, assisted by a variety of mentors, trained the chosen delegates and honed their skills in various aspects, be it analysing, researching, communicating, working in a team, reporting as a press team or handling social media. Representatives verbally responded to circumstances as they arose to make impromptu queries and gave replies based on their knowledge and research. They also deliberated and took decisions on behalf of their member states, directly from the simulated virtual floor of the UN.

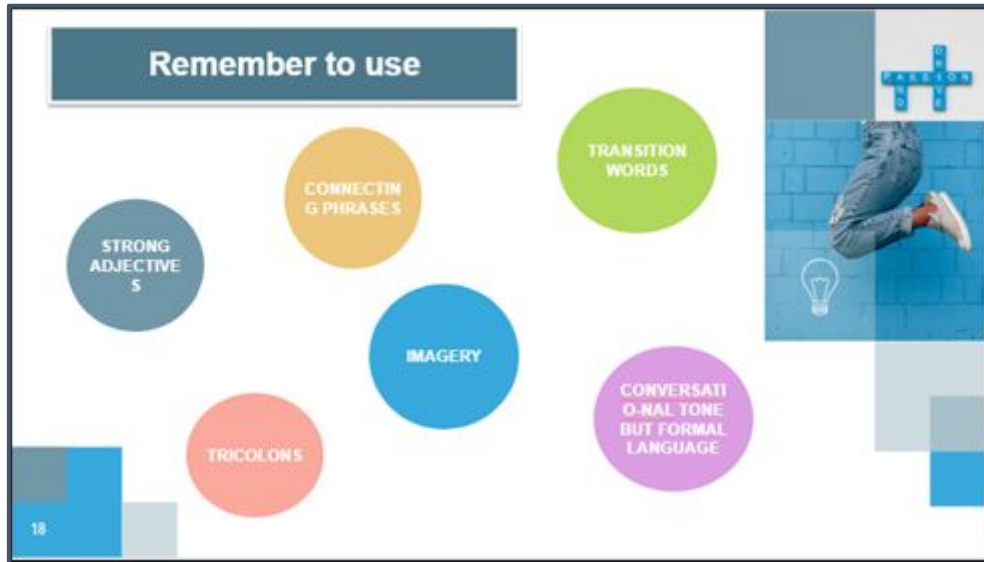


## CAREER AND COLLEGE COUNSELLING

An effective essay writing session was conducted for the students enabling them to tackle the various college applications and essays they will need to attempt. The nuances of a personal statement, prompt-driven essays, resume writing, and a statement of purpose were delved into. Various brainstorming activities were undertaken to get the students thinking about their strengths and achievements which they might want to highlight in their applications. A checklist was shared so that students had a guideline as to what each essay should encompass.



Students engaging in the session of writing college essays



Snippet of presentation shown to students

## The New Emerging Career in Design:ATLAS University Visit

Don Bosco International School invited Prof. Bulbul Chaudhary, Pro Vice Chancellor from Atlas Skilltech University to talk on "The New Emerging Career in Design". It was a vibrant interactive session with our students and she has very well portrayed how design is not just what it looks like but how it works.



## Canada University Fair

On 3rd August, the first university fair was organised in school with a focus on Canadian universities. The parents and the students got an opportunity to meet the representatives and ask them in person about the admission process. The participating universities were Queen's University, University of Ottawa, York university, Ontario Tech, and Toronto Metropolitan University.



## Visit by University of British Columbia, Canada and Jacobs University, Germany

On the 17th August 2022, the representatives of University of British Columbia, Canada and Jacobs University, Germany visited the DBIS campus. The session touched upon the campus life, admission process and the scholarship options.





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## COMPUTER SCIENCE AND VISUAL ART

Ms. Pratibha facilitated a visit to meet the artist Haribabu Natesan. His oeuvre is marked by purposeful repurposing, he works with e-waste to design art pieces and installations. The visit was an enriching experience.

### Visit to Artist's Studio



## DANCE AND WELLBEING SESSION

IBDP students had a surprise planned for them. Our dance teacher, Ms. Anjali took a session with the students to help them relax and enjoy the dance moves. The session started with some mindfulness exercises which culminated in a movement session. The session ended with a reflection and it helped the students to self manage themselves.



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## AWARDS AND ACCOLADES

The students of grade 12: Rhea D'costa, Natasha D'costa, Ishaan Umapathy, Sanjna Sridhar, and Francesco Fernandes were acknowledged for their consistent efforts in helping the Carter road beach clean up. They were awarded certificates during the school assembly and it was presented by the Regional Counsellor, Fr. Biju Michael.



Students at carter road beach clean up



*IBDP Happenings.....*

*Canada University Fair*



 **DON BOSCO INTERNATIONAL SCHOOL**  
**Invites**  
**Students and Parents**  
**of Grade 9, 10, 11 and 12**  
**@**  
**CANADA UNIVERSITY FAIR**

**Date: 3rd August 2022 | Time: 8:30 - 10:00 am**  
**Venue: Bianchi Hall**

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