SCIENCE
WEEK

PYTHON
PROGRAMMING

BIG DATA

HIS FUTURE
READY

INNOVATION &
ENTERPRISE CURRICULUM

SPHERO
CHALLENGE

CHECK IT OUT
SHOW

ARTIFICIAL
INTELLIGENCE

EVOLV3
TALKS

INNOVATION & DIGITAL
TECHNOLOGY SCHOLAR

CONTENTS

EDITOR'S NOTE

What an academic year it has been here at Horizon International School.

The purpose of HIS_Digital was to showcase and celebrate our digital learning achievements here at HIS to the entire community, with the theme this year being **"Are You Ready Player One?"**

What started off as an insight into what digital learning, technology and innovation holds; has now evolved into celebrating our successes and modeling what 21st century quality first learning and teaching looks like, with innovative experiences at the heart of everything we do.

Our students - the heart beat of our school, have risen to the challenge, broadened their horizons and given everything a go! Our generation of digital natives are thriving with the opportunities they are accessing and this is just the beginning, I can assure you.

Technology and digital learning is ever evolving. We continue to adapt, transform, shape and change the experiences we provide through digital learning here at HIS and we continue to learn.

On a personal note, I am immensely proud of what we have achieved this academic year for our students, staff, parents and community. The forthcoming releases of HIS_Digital will now incorporate much more than digital technology. It is a platform to celebrate our wider school successes across a range of curriculums.

No longer are we just focusing on emerging and developing our digital learning, technology and innovation; we now fully immerse and embed!

Are You Ready Player Two?

Mr. Petkar
Head of Digital Learning, Technology & Innovation

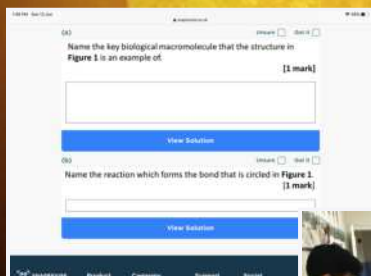*"Dear Past, thank you for the lessons. Dear Future, I'm ready."*

CARL SAGAN

This year's Science week kick started with a competition for our fantastic staff members, who had to GUESS THE SCIENTIST based on a series of picture clues around the school.

Congratulations to Mr Clifford, Ms Makan, Ms Young, Mr Willis and Ms Lee for winning themselves a treat from the Bell café.

Things only got better throughout the week, as we had Science embedded into different parts of the curriculum, with teachers in MFL, English, Drama and Social Studies delivering collaborative lessons on sustainability.

Our crazy science teachers and crazier scientist students also went around the school invading lessons, to conduct 5 minute wonder Science experiments across the school. Yes, it is true. They did set one of the Psychology teachers on fire!

We didn't forget about our younger, keen and upcoming Scientists - workshops were held for our KS2 students who learnt how to make water filters and build turbines. Safe to say, they are prepped to save our depleting resources.

Students from all year groups also took part in their very own Science fashion show - where they used nothing but recycled materials, trash bags and waste paper to create stunning outfits to walk down the runway with. Outfits ranged from solar powered dresses, tops made from masks, dresses made from individual straws, to upcycling their old jeans and dresses to make new outfits fit for an evening out.

Our year 12 students even made Mr Gale a kilt and tuxedo, who looked as dashing as ever. Fantastic creativity shown by the students as usual.

The most anticipated event of the year - the Science fair! Our students have spent the last few weeks planning, producing and testing projects that could meet the sustainable needs in the future.

Students had to come up with an idea, build it, test it and complete with a presentation to showcase to their peers and the school during the Science fair.

Finalists were chosen by their class mates, and the winners were voted for by everyone who came to the Science fair.

Massive congratulations to Rami, Alex and Fatima, 9P who bagged 4th place,

Nikolas and Romeo, 7H for coming 3rd place.

Turki and Zayan, 10K, for coming second, and Iva, Augustina and Sophia, 9E for winning the overall competition and coming first place.
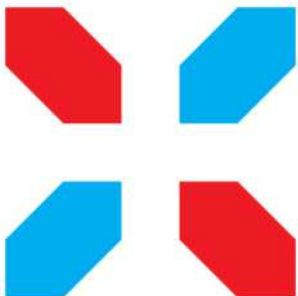
I Languages

Covid constraints didn't stop the fun in the MFL classrooms!

Despite split classes, plastic screens and lack of movement, our children have demonstrated their resilience throughout and we could not be more proud of their achievements.

Have a look at some of our highlights here.

Welcome to the World of Psychology by Ms. Young

This term we have examined a range of interesting topics including the influence of genetics on our behaviour.

In particular, the use of twin studies and how this might give us some answers in relation to the causes of behaviours such as schizophrenia and depression.

There have been numerous applications of psychological research but in particular to improve recall, for example when taking exams. Year 10 students have examined psychological theories of memory to understand how we learn and why we need to 'rehearse' the information outside of class in preparation for exams.

The introduction of 'knowledge organisers' has helped to demonstrate to students that by organising their notes in a certain way it will improve their recall of information when they need it most!

Give this memory test a go to see how good your memory is!

Why do we need sleep? Is it true that we need a minimum of 7 or 8 hours? Why do we dream? Do our dreams mean anything?

These are just a few of the questions that the Year 11 & 10 groups have explored this term. What do you think? This small clip gives a quick summary of the main theories behind dreaming.

CHECK IT OUT SHOW

Our two Student Digital Leader representatives Ethyn White and Nour Hassan took the opportunity to speak with education pioneers from Net Support and Really School on the Check It Out Show, live on YouTube.

Ethyn and Nour spoke about the range of innovative experiences that we have had this year at Horizon International School, including Innovation Week, being a Student Digital Leader and what is to come!

Both students spoke so professionally and were fantastic in representing our school.

Well done Ethyn and Nour!

PE

CLICK HERE

Practice social distancing.
Stand within this circle.

EVOLV3 TALKS

The Evolv3 Talks event on showcased the considerable talents of the HIS students taking part. A range of topics were presented. We learned about subjects as diverse as the origins of the Universe and the structure of the criminal mind!

All of the students spoke with confidence and passion. They developed speaking skills, extensive research and enthusiasm was there for all to see. We could n'ot have been prouder of them. It takes lots of practice and courage to stand up and deliver a talk.

 Well done to all. The talks were professionally compered by Romeq and Sammy. It really was a wonderful event.

ENRICHING PEOPLE, ENHANCING POTENTIAL, BECOME EXCEPTIONAL.

PYTHON PROGRAMMING

Students in KS3 developed their knowledge and understanding with Python Programming this term. A script based programming language which is used throughout the coding industry today!

Our students were able to use conditions and functions to interact with their code; going onto creating their very own Covid-19 Clinic and Health Check program, along with a Sports Facility program.

The transformation in our students coding skills has been amazing to see!

SPHERO CHALLENGE

Students in Year 6 have been designing their very own Sphero challenge courses this term.

Students had to use their critical and design thinking skills, along with collaborative research to think of ways in which they could progressively make their courses harder.

Using block code programming within the Sphero Edu iPad application, peers had to complete the obstacle courses to enable the Sphero to move at speed, through water, ucross ramps.

It is safe to say, Year 6 had an amazing time doing this and the designs they created using their own everyday household resources were absolutely phenomenal!

HIS FUTURE READY

Here at HIS, we do not stop. We continue to grow and develop ourselves with the ever evolving technological change around us. We serve our students with the aim of enabling them to become "Future Ready".

Looking forward to the new academic year 2021-2022, we are introducing a range of advancements; both for students and staff.

Students in our Secondary School will have their own ePlanners embedded within Microsoft Teams where they access their homework diaries, live timetable and "Big Data" through the integrated Microsoft Power BI. Students can understand their own data and make informed decisions based on their learning journey.

Staff at HIS have been introduced to the new HIS Intranet. A site for all internal staff to access resources, have centralised storage areas, weekly bulletins, events calendars, policies and much more. Our student digital leaders have also created a fully integrated "Tech Help" SharePoint site for peers and teachers to access a range of videos to support with multiple devices.
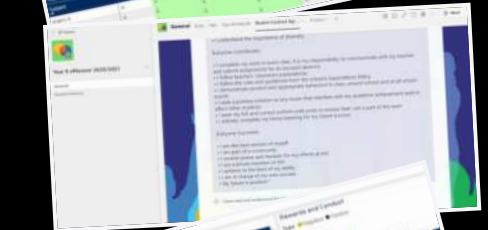
Our KS1 and KS2 Computing curriculum is modified through the leadership of our Innovation Activators & Agents team. This allows our primary students to use the technological advancement on their iPads to integrate Apple Education and Computing within their cross curricular lessons seamlessly.
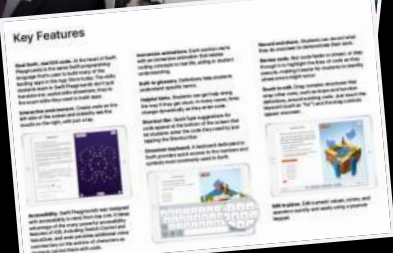
WALKTHRUs at HIS

Teachers of Horizon International School love to learn, develop their teaching practice and improve students' learning.

Since February, our teachers have been enhancing their teaching by engaging with some highly effective strategies from Tom Sherrington and Oliver Caviglioli's WALKTHRUs.

We are one of the first schools in Dubai to embrace this approach in which each strategy is designed using cognitive science and pedagogical research to ensure highly effective learning is the benchmark for *all* of our students.

Take a look at our video to see WALKTHRUs in Action at HIS!

Keep updated with Learning and Teaching at HIS:

twitter @HISTL3

WALKTHRUs that we have implemented at HIS so far:

Deliberate Vocabulary Development
Explicit teaching and practising of specific vocabulary so that our students have a broad and sophisticated repertoire of words.

Say It Again Better
Refining, extending and developing verbal responses so that our students are challenged to think deeper and articulate their ideas better.

Live Modelling
Teachers demonstrating the process of achieving high quality responses so that our students understand exactly how to produce excellence.

Quizzing
Retrieving key information from previous learning through low-stake quizzes so that our students retain and build upon a solid foundation of crucial knowledge.

Some of the digital platforms we have used to quiz our students...

QUIZIZZ
https://quizizz.com/

Blooket
https://www.blooket.com/

Quizlet
https://quizlet.com/

nearpod
https://nearpod.com/

INNOVATION & ENTERPRISE CURRICULUM

The Primary and KS3 curriculum continues to be modified and adapted to enhance the opportunities we provide for our students here at HIS.

This enhancement, along with the adaptation in our KS3 curriculum now forms the new "Innovation & Enterprise" curriculum at HIS.

The strands we will focus on include digital communities, robotics, artificial intelligence, computer programming, design thinking and sustainability.

I CAN'T KEEP CALM
I'M TOO EXCITED

We cannot wait to get started with this again across HIS in the new academic year 2021-2022. Stay tuned to watch it revolutionise; enabling our students to become #futureready

INNOVATION & DIGITAL TECHNOLOGY SCHOLAR

DREAM BIG

My name is Ali Zakaria and I have recently been selected as a Digital and Innovation Scholar at Horizon International School.

I am very proud to be in this role as I believe that I can develop and enhance the school in multiple ways within the department and in many other aspects around the school.

This role means a lot to me, and I hope to fulfill expectations, bringing forth new ideas and aspects to the school through out my years as a scholar.

One of my innovative ideas is to deploy a fingerprint sensor for registration for all students at HIS.

I would also like to have a coding club for students who are interested to learn about Python, Java and C+.

ARTIFICIAL INTELLIGENCE

How many times have you carelessly thrown rubbish into a bin? whether it was a recycling bin or a generic bin, it's likely your waste was not recycled.

Pollution and the consumption of natural resources are fatally impacting our health, wildlife and future generations. This is why our goal is to create a sense of urgency about this problem and teach coming generations to recycle.

To address this problem, we have taken an innovative and technological approach and created GoGreen, the app.

GoGreen is an iOS functional prototype app that uses visual recognition to classify images of rubbish. We accomplished this by utilising machine learning, a subset of artificial intelligence; an image dataset was created to train the visual recognition model which we implemented into the app, coded using Swift.

We would target the app towards schools as a learning tool to teach children how to recycle in a simple and kinesthetic way. The visual recognition model could also be implemented in various ways such as drones, boats and smart bins.

The process of creating GoGreen was a challenging and new experience. We were able to experiment with innovative technologies and help the future of our planet, and this was all achieved by virtue of passion and initiative.

THE ^new PERIODIC TABLE OF iOS APPS FOR AR AND VR to try

Art Plunge

Boulevard AR

Immersivly VR Art

Lightspace

Memory Museum

School Fab Lab

Shepard Fairey AR

57° North

Alice in Wonderland

AR Flash Cards Addition
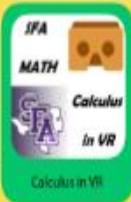
Calculus in VR

Magicplan

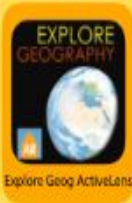Medieval Math VR

Virtual Architecture

Walter's Cube

Bookful

Catchy Words AR

CleverBooks Geography

Dubai360 VR

Explore Geog ActiveLens

3D Museum Viewer

Enter The Room

Figment

Immersivly Shakespeare

Night Zookeeper

Kolb Antartica

PI VR Earth

Sites in VR

Valentine's Day Massacre

Portals - Learning w/ AR

Tara's Locket

VirtualSpeech

Wonderscope

Google Expeditions

Virtual Oceans

WWF Free Rivers

Hologo

Legend:
- ART & DESIGN
- CREATIVITY
- GEOGRAPHY
- HISTORY
- LITERACY
- MATHS
- SCIENCE
- TEACHING

BLE
OR

today!

3DBear	AR Makr	Assemblr	Kouji	ABC AR Space Discovery	AR VR Molecules Editor
Moatboat	Orb	Quiver Masks	SketchAR	Astro Tim	Brainapse
Shapes 3D Geometry	Times Tables VR	Pi VR Explorations	Trench Experience VR	Tayasui Blocks	Thyng	Complete Anatomy	Dino Park AR+
Ancient Egypt VR	AR Flashcards Lincoln	ARcheology - Dig Up	Magi Chapel VR	Olympia in VR	ENEC 360	Froggipedia	MEL Chemistry VR
ChronoQuest	Civilisations AR	Hangar VR	iDig	Kokoda VR	Mr Body	Plantale	Share the Science - STEM
Life VR	NYT VR	Object Viewer	Our Minds AR	Waypoint EDU	Solar System Builder AR	The World Of Cells	V-Lab

321 Launch

ICT EVANGELIST

HISTORY

- ANNE FRANK HOUSE VR
- 1943 BERLIN BLITZ
- MASTERWORKS
- NEFERTARI
- HISTORIUM VR

GEOGRAPHY

- Google Earth VR — now with Street View
- AMAZON ODYSSEY
- Go Guess!
- BEYOND Tokyo
- EVEREST VR

GOOGLE EARTH VR

- GOOGLE EARTH VR
- AMAZON ODYSSEY
- GO GUESS!
- BEYOND TOKYO
- EVEREST VR

SCIENCE

- SHARECARE VR
- HOLOLAB CHAMPIONS
- MICRO COSMIC WORLDS
- HOLD THE WORLD
- CIRCADIAN RHYTHM

- Sharecare VR
- HoloLab Champions
- MICRO COSMIC WORLDS
- HOLD THE WORLD
- CIRCADIAN RHYTHM

AR

- Tilt Brush by Google
- MASTERPIECE VR
- Quill
- KINGSPRAY
- Dojagi — The Korean Pottery

SOCIAL STUDIES

- BECOMING HOMELESS — A HUMAN EXPERIENCE
- HUNGER
- WITHIN
- THE WALL
- BLACK BOX

ASTRONOMY

- universe SANDBOX
- OVERVIEW
- TITANS OF SPACE 2.0
- Apollo 11 HD
- HOME

- UNIVERSE SANDBOX²
- OVERVIEW
- TITANS OF SPACE 2.0
- APOLLO 11 HD
- HOME: A VR SPACEWALK

EDUCAT... VR A...

FOR HTC VIVE, OCULUS R...

Icons denote which store each app is avail...

List curated by Steve Bambury // @steve_bambury // www...

TEACHING

- ENGAGE — COMMUNICATE / TEACH / LEARN
- UNIMERSIV
- AltspaceVR
- rumii
- Lifeliqe

- ENGAGE
- UNIMERSIV
- ALTSPACE VR
- RUMII
- LIFELIQE VR MUSEUM

ECOLOGY

- OPERATION APEX
- CORAL COMPASS — Fighting Climate Change in Palau
- OCEAN RIFT
- Kolb Antarctica Experience
- tree

- OPERATION APEX
- CORAL COMPASS
- OCEAN RIFT
- KOLB ANTARCTICA EXPERIENCE
- TREE

STEM

- FANTASTIC CONTRAPTION
- VR ROBOT
- SCHOOL FAB LAB VR
- FERIT Simulator
- WRENCH

- FANTASTIC CONTRAPTION
- ROBOTICS IN VR
- SCHOOL FAB LAB VR
- FERIT SIMULATOR
- WRENCH

MU...

- MuX
- lyra VR
- The Music Room — EXPRESSIVE MIDI CONTROLLER
- JAM STUDIO VR
- VINYL REALITY

ART / DESIGN TECHNOLOGY / GALLERIES / MATHS

ART	DESIGN TECHNOLOGY	GALLERIES	MATHS
TILT BRUSH	GRAVITY SKETCH	THE KREMER COLLECTION	CALCFLOW
MASTERPIECE VR	BLOCKS BY GOOGLE	THE VR MUSEUM OF FINE ART	NUMBER HUNT
QUILL	MAKEVR PRO	SHEPARD FAIREY - DAMAGED	MATH CLASSROOM CHALLENGE
KINGSPRAY GRAFFITI VR	MICROSOFT MAQUETTE	THE FINNISH VIRTUAL ART GALLERY	NEOTRIE VR
DOJAGI KOREAN POTTERY	OCULUS MEDIUM	BOULEVARD	GEOGEBRA MIXED REALITY

EDUCATIONAL APPS

FOR HTC VIVE, OCULUS RIFT AND WMR HEADSETS

Available from (Steam/Viewport/Oculus Store)

www.virtualiteach.com // www.youtube.com/stevebamburyvr

STORYTELLING / NARRATIVES

STORYTELLING	NARRATIVES
MINDSHOW	PEARL
TVORI	INVASION!
FLIPSIDE STUDIO	ALLUMETTE
PUPPET FEVER	VESTIGE
ANYLAND	THE RAVEN VR

MUSIC / PSYCHOLOGY / IDEATION / PHYSICAL EDUCATION

MUSIC	PSYCHOLOGY	IDEATION	PHYSICAL EDUCATION
MUX	IN MIND 2	NODA	BOX VR
LYRA VR	NOTES ON BLINDNESS	DRY ERASE	FIRST PERSON TENNIS
THE MUSIC ROOM	WHERE THOUGHTS GO	ALTAR SHOW	SPARC
JAM STUDIO VR	RICHIE'S PLANK EXPERIENCE	THINK SPACE	FINAL SOCCER VR
VINYL REALITY	THE MARVELLOUS MACHINE	VIRTUAL IDEA AREA	BEAT SABER

Horizon International School

مدرسة هورايزن الدولية

04

H I S _ D I G I T A L

ISSUE 04, JUNE 2021