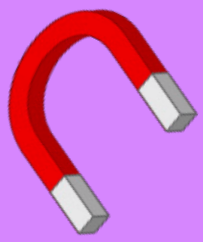


October Online Classes 2021

CTY IRELAND

Programme for Primary School Students aged 6-12 years

Nurturing Talent, Maximising Potential

Dear Parent,

We are disappointed not to be seeing students face to face this term but unfortunately circumstances have dictated that we will have to run the majority of our classes online for the mont of October. Fear not though as we have lots of amazing teachers who have been working very hard to produce some online courses for high ability students. Many of these teachers are former CTYI students and all of them want to produce work that will be enjoyable to all talented students.

We hope to be able to run classes as normal soon and we will email all students' parents with more details of this once we get confirmation from the universities that it is safe to do so.

Every student who attends this online programme has curiosity to find out more information. This can be achieved through reading or doing and making things themselves. We believe that these courses allow us to capture some of this type of learning and allows students thrive in an environment where knowledge is valued and opinions are welcomed. We encourage you to join us for CTYI online this year and help your child fulfil their potential.

Dr. Colm O'Reilly
CTYI Director

What Parents Can Expect

If this is your child's first time at CTYI, it's probably a little daunting for both them and you!

Courses at CTYI are challenging, there's no doubt, but they're a lot of fun!

CTYI courses are designed to be academically challenging & give students a chance to meet and mix with their academic peers. Parents often wonder what a CTYI course will be like and how it will benefit their child.

Children taking part in CTYI programmes can expect to feel challenged and stimulated by their chosen course. They will meet similarly able and like-minded children, whom they share hobbies and interests with. They will experience a positive social environment. They will engage with instructors who are working or following advanced study in their field. Learning at CTYI is engaging, interactive, advanced, moves at a pace more suited to your child's ability, but above all, it's fun!

Courses offered by CTYI are based on the availability of instructors and facilities in the various institutions. CTYI instructors are chosen on the basis of mastery of the subject, enthusiasm and good communication skills. Students are encouraged to study subjects which they have shown a previous interest or ability.

If your child is not enjoying the course, we recommend you give it a day or two. Sometimes, because of other influences or previous experiences, children have preconceptions coming onto the course that are different to the subject they experience. This is normal and we encourage them to bear with it for a little while.

If you have any questions in relation to the academic component of the courses, please contact Dr. Leeanne Hinch (01 700 8977) or Dr. Catriona Ledwith (01 700 8423) for assistance.

Courses for 6-7 Year Olds

Morning

10AM - 11AM: Strategy Games

11:30AM - 12:30PM: Detective Skills

Afternoon

1:30PM - 2:30PM: The Human Body

Detective Skills

This course will introduce students to the skills used by real-life detectives to figure out unsolved cases. Presented with exciting cases to solve each day, they will learn how to develop their own powers of analysis and detection. Students will learn how to present evidence and also learn what questions to ask to bring them closer to solving a case. The course will include forensic science techniques too. So whether it's a missing lunchbox or something more sinister, Detective Skills will show students how to analyse, enquire, search and scrutinise like a real detective.

Strategy Games

This fun course will teach you useful strategies to win at games, how to solve some supposedly unsolvable problems, and it will also show you some cool mathematical tricks! The fascinating facts behind game theory will be told and you will hear how game theory is used in such exciting areas such as engineering, biology, and politics to help people, technology and animals win in many situations!

The Human Body

The human body is full of secrets, from the gory to the glorious. In this course, we will uncover some of those secrets like: why does it hurt when you fall? How do we hear? How do we speak? How do our muscles work? And most importantly, what happens when something goes wrong? We will be examining the human body as well as the brain to help understand why we are the way we are. Fun practical activities will be included.to approach these problems like a doctor and a scientist, and how these experts go about solving such problems in the field.

Online Course Dates

Saturdays October: 2nd, 9th, 16th & 23rd

Progressing From Courses for 6-7 Year Olds to those for 8-12 Year Olds

When children reach 8 years of age, they are ready to progress onto our programme for older primary students.

It can be daunting for children moving from the elementary to the young student programme. The main differences between the two programmes is that;

Each day, the 6-7's programme offers students subject pairs, taught in 2 x 1hour classes, where the young student programme usually offers a 2.5 hour class in one subject. (May and Summer term varies). The course material tends to become more complicated as it caters for the wider age range.

In preparation for the change in level, we recommend that children choose a subject that they think they will really enjoy. They should try to avoid the physical sciences initially (computers, physics, chemistry, maths, engineering). If they wish to choose a science subject, they should opt for courses where the focus is broader.

If after a day or two you feel that they are struggling or that the course material is way above them, please contact:
Dr. Leeanne Hinch (01 700 8977) or Dr. Catriona Ledwith (01 700 8423) for assistance.

Courses for 8-12 Year Olds

IMPORTANT

Online courses in October run in course pairs. Students choose from the list of course pairings below and study each subject for 1 hour each Saturday.

E.g. Medicine + Psychology - 1 hour of Medicine, 15 minute break, 1 hour of Psychology

Saturdays October 2nd, 9th, 16th & 23rd 2021

Morning Classes 10:15am - 12:30pm

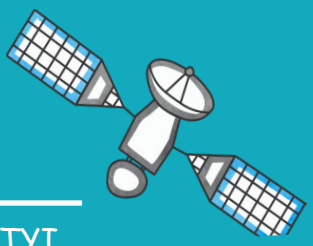
Codes & Ciphers + Astronomy
Exciting Explorers + The Art of Animation
Exploring Engineering + Nanoscience
Hogwarts; A history + Debating 101
Oceanography + Animal Behaviour
Psychology + Medicine
Rocket Science + Environmental Science

Afternoon Classes 1:45PM - 4PM

Aeronautical Engineering + Gizmos & Gadgets
Animals & Adaptations + Miraculous Microbes
Architecture + Game Design
Build a State + Flash Fiction
Myths & Legends + Crime & Punishment
Puzzles & Problems + Medical Mysteries
The Science of Harry Potter + Forensic Science

COURSE DESCRIPTIONS

8-12 Year Old Classes



The course outlines are meant only as a general guide to the subject. As CTYI do not use course syllabi, each course is developed by it's instructor in close cooperation with the academic coordinators. It is possible therefore that the course delivered may differ from the descriptions printed here.

We advise students to choose new subjects each term

Animal Behaviour

Animal Behaviour is the scientific study of the wild and wonderful ways in which animals interact with each other, with other living beings, and with the environment. By understanding animal behaviour we can contribute to animal conservation, enhance captive animal welfare, modify animal behaviour and train animals appropriately. Over this course CTYI students will explore how animals learn and how to use this in animal training, learn how to read animal body language , investigate how animals communicate with each other (and with humans) and study how animals interact with their environments. We will carry out observations of native Irish species in the wild and learn the importance of conservation to save animals from extinction. The course aims to give students a good theoretical background in animal behaviour, as well as practical skills in animal handling and training.

Aeronautical Engineering

This course has everything you ever wanted to know about flying a plane but were too afraid to ask. The course will explore areas such as air navigation, helicopter technique, human performance, air law and meteorology and an in-depth examination of mechanically propelled aircrafts. If you think you would have fit in with the Wright brothers, or that you might be the next Amelia Earhart then this is the course for you!

Animals & Adaptions

Animals can be found on every corner of the planet, from the driest deserts to the highest mountains, even at the very bottom of the ocean. But how do they do it? Animals across the world have developed some remarkable adaptations that allow them to live in the most extreme places. This class will take a look at the importance of adaptation in animal survival, while taking a look at some of the most bizarre creatures on the planet.

Architecture

Architecture is the science and art of designing structures. Whether it's a house, cathedral, theatre or shopping centre, architecture draws together needs, space and materials and converts it into size, shape and detail. On this course you will learn how to design and plan, translating your inspirations into solid structures.

Astronomy

This course will explore the universe, starting from our nearest neighbours in the Solar System, moving through our galaxy the Milky Way and beyond, to the furthest reaches of the universe via intergalactic space, black holes and quasars. Some of the questions which we hope to pose and answer include - is there life on other planets? How does a rocket work? What can we see for ourselves through a telescope?

Build a State

If you were given complete control over a country, what would it look like and how would it work? How would you ensure that no one person has too much power, or that citizens are fairly represented by their leaders? In Build a State, you will learn about the different building blocks that make up modern states, such as electing leaders, passing laws, forming parties and protecting citizens. Using practical activities such as mock elections and debates, you will develop an in-depth knowledge of the workings of government. If you have an interest in politics and how it functions then this is the course for you!

Codes & Ciphers

This exciting and hands-on course will aim to develop problem solving and critical thinking skills in a fun and creative environment. We will learn of the evolution of codes and ciphers from Caesarean times to its modern day uses. Students will be challenged to encrypt and decrypt messages as well as cracking unknown codes.

Crime & Punishment

What makes someone commit a crime? Is nature or nurture more important? Does sending people to prison work? If these are questions you would like answered, Crime & Punishment could be for you! We will look at the causes of crime and how it is dealt with, and who gets involved when people break the

law. We will talk about alternatives to traditional courts and prisons, and explore why we need to have laws in the first place. This course will be an interactive with debates and a mock trial just a couple of the activities we have planned for the class! We will also look at how other countries deal with criminals and the class will get a chance to design their ideal legal/criminal justice system towards the end of the course!

Debating 101
This fun and interactive course is for anyone who is interested in developing skills of critical thinking, argumentation and public speaking. In this course we will cover the basics of how to craft a convincing argument, how to deliver it persuasively and of course how to defend it! Each week will focus on a different skill and involve lots of group discussion and debating on topics ranging from lowering the voting age, the ethics of zoos, to books vs films, and many more.

Environmental Science
As Wendell Berry said, "The Earth is the one thing we all have in common." The old model of human civilisation built on the back of widespread natural destruction is no longer sustainable, and in this course you will be looking at the cutting edge solutions to some of our greatest challenges- climate change, mass air pollution and continuing population growth. Humanity's survival demands new ways of generating power, new ways of organising how and where we live and even new ways of producing food to meet rising demand.

Exciting Explorers
Have you ever wanted to go off on an adventure and discover somewhere that might never have been seen before? Do you think you have what it takes to be the next Tom Crean? If you want to canoe down the Amazon, ice skate in the Antarctic, trek through the great deserts and jungles then maybe this is the course for you! In this course we will learn about some of the most amazing explorations and adventures from history. How did they know where they were going and what did they need to do to survive? Find out in this fun new course!

Exploring Engineering
This course aims to introduce students to some of the core principles underlying the study of engineering. Engineers are important in many things that shape the world around us such as computer chips, rocket science and advanced technology. There will be a practical element to this course, with students constructing their own bridges and looking at engineering in everyday life.

Flash Fiction
Some of the scariest stories you'll ever hear are just two sentences long. The funniest tales are now told in the length of one Tweet. Flash fiction is the art of the very short story, ranging from just 6 words to 1,500 words at the maximum. Flash fiction boils storytelling down to its essence, and is a great place for beginners to get started and the very best authors to sharpen their skills. In this fun course you will learn about writing characters, plot, conflict, dialogue, and everything else you need to get across your amazing stories as quick as a flash!

Forensic Science
Students will get the chance to solve a forensics mystery, learn about fingerprinting, investigate crime scenes and examine blood spattering patterns. They'll also get the chance to learn about ballistics, analyse tyre tracks left at the scene and examine suspects handwriting – not for the faint hearted!

Game Design
Learn about the different components involved in making a game. Introduce yourself to the main concepts involved in game design: chance, player agency, narrative, objectives, goals, mechanics and rules. Explore the history of board games and their cultural and symbolic importance. Maybe you can even use your newfound knowledge to create a selection of boards games using different resources, themes and game mechanics!

Gizmos & Gadgets
Is it a gizmo or a gadget? What's the difference? Does it really matter? We don't think so, but what we do think is more important is knowing how they work and are made. We also think it's super important that today's students, tomorrow's inventors, get the chance to start putting their ideas together in creative and fun ways! This course is for those budding inventors, the ones that want to take apart the TV remote to see what's inside, the ones who take apart and put their toys back together just for the joy of discovering their inner workings. Whether they're a budding engineer, scientist, IT pro or technologist superhero this is the place to explore all those wonderful gadgets and gizmos!

Hogwarts; A History
Calling all Muggles! Did you know that you too can play quidditch and perform feats of magic? As well as some fun practical activities, students will delve into the mythical world of Harry Potter and will deconstruct the books to find links between Harry's world and our own: examining topics such as whether snakes and owls really are mystical beasts; whether there is any proof of the existence of goblins and fairies; and if the so-called witches and wizards in our society have anything in common with the wizards and witches in Hogwarts.

Medicine
This exciting course will bring the

student on a fascinating journey of human health. It will cover both ways to keep you healthy such as nutrition, exercise and laughter, and also explain how modern medicine can help people recover from illness - from firstaid to hospital care. The course will trace the evolution of medicine from ancient times (where electric eels were used to numb patients!) to the present day where high tech diagnostic equipment (MRI / X-rays) allow doctors to help even more people than before. Discover how your heart beats, how your muscles move, what headaches are and how Aspirin makes pain disappear.

Medical Mysteries
How did mouldy bread save millions of lives? What makes identical twins identical? What is that growing on your toe? Tough questions like these are at the heart of medicine as a discipline, and tackling them leads to direct improvements in our everyday lives. From the first caveman to eat tree sap for its painkilling qualities to the cutting edge of modern medicine, this course will look at the questions that power medical advancement. In this class you will learn how to approach these problems like a doctor and a scientist, and how these experts go about solving such problems in the field.

Miraculous Microbes
A step into the world of microbiology, taking a look at bacteria, fungi and viruses. Microorganisms can be found everywhere, some helping us and some harming us. This class will focus on characterising microorganisms, as well as looking at their function in our world.

Myths & Legends
In this course we will look at the ideas that surround the study of Mythology. We will look and compare myths & legends from different cultures, such as the Graeco-Roman, Nordic, Celtic, Egyptian and others. We will try to answer questions such as:- What is a myth?- What is a legend?- What is a Cosmology?- What is a Pantheon of Gods? Are there any myths nowadays? Using traditional stories, legends and folktales and through different activities we will develop an understanding of all these interesting ideas

Nanoscience
Nanoscience is the science of the really, really, really small! Would you like to replace all your school books with one sheet of flexible, electronic paper? How could this be possible? Nanoscience! What has the potential to create shoes that allow humans to walk up walls or clothes that could charge your mobile phone? Nanoscience! This exciting course looks at everything from nanotechnology and the nanoscale, to nanoscience in nature. Did you know your fingernails grow 1 nanometer every second? On this course we will be exploring lots of different Nano Wows!! Students will work as 'nanoscientists' discovering all that the exciting world of nanoscience has to offer!

Oceanography
Oceanography covers a wide range of topics, from the ocean ecosystems to plate tectonics to the effects of the ocean on climate and the climates effect on it! It's as broad and deep as the ocean itself! This is a cross disciplinary field and as a result this is a cross disciplinary course drawing on a number of sciences and fields of knowledge. If you've ever wanted to know more about 71% of our planet that isn't land then this is course for you. The deep blue ocean awaits a new explorer!

Psychology
Psychology looks at human behaviour in action in the world. On this course, students will learn the principles of the different fields within the Psychology, studying aspects such as cognition, emotion, personality, brain function, perception and social psychology. The course will incorporate practical elements too with students using simple psychological tests and developing their own experiments to examine topics, such as eye-witness testimony, face perception, sound and visual illusions.

Puzzles and Problems
This course looks at some mathematical artistry! With plenty of puzzles to solve and codes to break, students will see how maths impacts on practically everything we do in life. The class will learn how to do some fantastic tricks with numbers, including shortcuts and fun mathematical feats to dazzle your friends.

Rocket Science
Rocket Science is a broad term given to a huge variety of challenges that need to be overcome in order to leave our planet. The space race of the 20th Century involved many of the best and brightest minds pushing – and surpassing - the technological limits of humanity. In this century the race continues, but the goals are even more ambitious. Developing nations such as China and India are well on their way to putting a person on Mars and companies such as Space X and Virgin Galactic are getting closer and closer to their goal of making space travel possible for ordinary citizens. In our Rocket Science course, both the challenges and the rewards will be high so why not make this your year to embark on a space odyssey?

The Art of Animation
Learn about the early history of making motion pictures and the techniques used to make animations. Explore the magic of how to make drawings and objects come to life by making animated flip books, zoetropes, and learn how to make clay-motion movies. Discover how to tell and make a short animated story by making story boards, designing and building miniature sets, and using photography.

The Science of Harry Potter
There is some wonderful science that you can learn about through this magical world! The philosopher's stone and the alchemist's quest for gold can teach us much about atoms. Is herbology really that far from our own wonderful plants? Is an invisibility cloak really that crazy? What does science say about the future of flying? This course is for anyone interested in some spellbinding science!

Nurturing Talent,
Maximizing
Potential

Fees

FEES FOR COURSES

6-7 year olds	€60 Morning/Afternoon
8-12 year olds	€120 Morning/Afternoon

If your child wishes to attend both a morning and afternoon course, the fee is €240 **(8-12s only)**.

NB: Each fee above will incur an Eventbrite booking fee

PAYMENT

Payment may be made via Eventbrite.

REFUND POLICY

No Refund will be made to any student who is assigned one of their course choices but decides not to attend. Once you sign up and pay on Eventbrite, this is considered a course allocation so no refund will be made after this.

Students who start a course but do not complete it are not eligible for a refund.

Fees are non-transferable.

Application Process

-Places will be allocated on a 'first-come, first-served basis'.
-If you are interested in applying for one of these courses, please follow the link provided in the email , which will take you to our Eventbrite listing.
-To apply you need simply enter your details & your child's details and pay with credit/debit card for your chosen course through Eventbrite.
-Tickets on Eventbrite will close as soon as a course is full.

TERMS & CONDITIONS

CTYI reserves the right to cancel or alter any course if, due to unforeseen circumstances the course cannot be run economically or efficiently.
CTYI reserves the right to change the course accordingly and will inform parents of any changes during the course.

Nurturing Talent,
Maximizing Potential

Contact Us

All details can be found in our brochure, but if you have a query or require further information on our Young Student Programmes please contact;

General Enquiries
Grace Kelley
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Young Student Manager
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Academic Coordinator
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01 700 8977

DCU
Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

Over 25 Years Providing Specialised Courses for Gifted Children in Ireland

Nurturing Talent,
Maximising Potential

Application Deadline

Friday, September 24th 2021

@CTYI

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