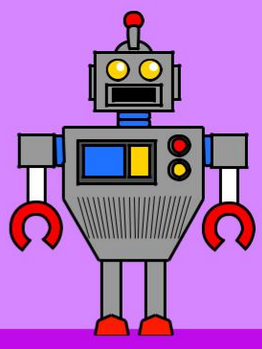
# May

# 2021



CTY IRELAND

*Programme for Primary School Students aged 6-12 years*


*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 May Term. 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 again 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. 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: Leeanne.Hinch@dcu.ie or Dr. Catriona Ledwith: Catriona.Ledwith@dcu.ie for assistance.

# Courses for 6-7 Year Olds

**Courses for 6-7 year olds will take place online.**

| Morning Class Times<br>10.30AM - 11.30PM<br><br>Afternoon Class Times<br>2PM – 3PM | Dates<br><br>May 8th, 15th, 22nd & 29th |
|---|---|

## Courses

| Mornings | Afternoons |
|---|---|
| Codes & Ciphers | The Brilliant Brain |

### 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 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

### The Brilliant Brain

Do you think about thinking? Or wonder how you feel what you feel? Do you believe our senses really make sense of everything? Our brain controls how we think, move, sense, and even remember, but sometimes it can trick us too! In this fascinating course, we will explore just how the brain works, as well as its faults and limits. With plenty of fun tests and experiments, we'll get to the bottom of this big and brilliant blob.

# 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 Saturday, 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: Leeanne.Hinch@dcu.ie or Dr. Catriona Ledwith: Catriona.Ledwith@dcu.ie for assistance.

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# Courses for 8-12 Year Olds

IMPORTANT

Courses in May 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 Psychology

## Online Courses

### Saturdays May 8th, 15th, 22nd & 29th 2021

### Morning Classes 10:15AM – 12:30PM

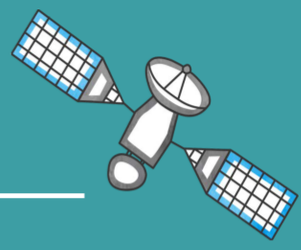
- **Debating 101 & Crime and Punishment**
- **Gizmos and Gadgets & Forensic Science**
- **Imaginative Storytelling & Hogwarts; A History**
- **Inside the Frame & Graphic Design**
- **Medicine & Psychology**
- **Volcanoes, Earthquakes, Tsunamis & Ireland's Wild History**
- **Zoology & Fantastic Physics**

### Afternoon Classes 1:45PM – 4PM

- **Animal Behaviour & Marine Biology**
- **Ancient Civilisations & Write, Act, Preform**
- **Build a State & The Art of Animation**
- **Exploring Engineering & Rocket Science**
- **Game Design & Discoveries and Inventions**
- **Lasers, Lights and Illusions & Genes and T-Cells**
- **Mathematical Magic & Codes and Ciphers**

# 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.**

### Ancient Civilisations

How might a Roman court deal with a thief? How might the Babylonians deal with water shortages across their empire? What were Olmec burial practices like? Where was the seat of power in Chinese dynasties such as the Shang Dynasty? Who were the architects of Egyptian civilisation? Long before the world we know today there were great and varied kingdoms, empires, and democracies throughout the world. To explore these places and get to know their people come join the Ancient Civilisations course

### Animal Behaviour

Are you fascinated by the weird and wonderful behaviour of animals? Do you have a pet whose actions both puzzle and amaze you? Do you aspire to work with animals in the future? In this exciting course, you will gain a greater understanding of a wide range of wild and domesticated species, from ants to apes, horses to hummingbirds, and dogs to dolphins. We will learn about evolution, adaptation, and survival, considering intriguing features such as camouflage and mimicry. We will investigate the astonishing abilities of various creatures, in areas of intelligence, learning, problem-solving, decision making, tool use, and play. We will delve into animal minds, looking at perception, memory, and self-awareness. And we will further explore how animals interact with each other, studying communication, cooperation, dominance, and parental care.

### *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

### 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.

### Discoveries & Inventions

Do you love to create, investigate and problem-solve? Do you enjoy tinkering, building, dismantling and designing? Are you inspired by the innovators and inventors of the past and present? In this fun and fascinating course, we will travel from the ancient to the modern world, exploring the amazing breakthroughs in science and technology that have changed our lives for ever. Drawing on a wide variety of STEM subjects, we will learn about the human body, medicine, space travel, machines, computers, and much, much more. Expect to be continuously challenged to work on your own discoveries and inventions, with guidance on the processes of idea generation, product design, experimentation, problem solving, and prototyping. If you have a theory to prove or an idea you want to turn into a reality, then this is the course for you!

### Game Design -

Learn about the different components involved in making a board 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.
Examine ludology the study of play to see how play and playing has effected human beings and animals.
Play a number of different board games to explore how they effect the player differently.
Finally use your newfound knowledge to create a selection of board 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 he 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!

## Genes & T-Cells

Understanding genetics is the basis of many fields under the umbrella of human biology and medicine. None more so than that of immunology, the study of the human immune system and its role in keeping you healthy. The key information carrier in the human body is the gene, code detailing all the proteins and compounds needed to keep you alive. If we zoom out from the genetic level we can find cells such as the T-Cell, the key player in cell driven immunity. This course brings you from the ground up in the field and immunology, from gene to t-cell and beyond.

## *Graphic Design*

Do you create your own posters? Or dream of seeing your advertisement in a magazine? Then this course is for you! All around us in the world today graphic designers have created advertisements, logos, posters etc. through the use of words and pictures to spread messages to us. Through looking at its origins and seeing how it is changed over the years this exciting course will give students the opportunity to use both traditional and technological means in the highly interactive process of generating their very own graphic design!

## 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.

## Imaginative Storytelling

Everyone has a story to tell. When chatting with friends or family, we're always swapping stories. Our lives are a collection of stories and our greatest art forms are built on stories, whether it's fiction, film, drama, music, comedy, or art. In this fun and lively course, students will learn the skills to spin a gripping yarn. We will explore storytelling in all its forms: written, oral, visual, and performative. We will dream up fairy tales, develop dramatic monologues, and design comic strips. Whether you enjoy comedic rambles, epic journeys, or true-life tales, this course will give you the tools to tell them well. Come and share the stories that lie inside of you.

Please note that writing skills are not essential;

just a good memory and a big imagination!

## Inside the Frame

This course introduces students to the analysis of film and screen media. Looking at the various aspects of cinematic production including sound, lighting, costume, acting, cinematography, genre and others, this course will look at how each of these aspects affect how we understand films, and how we might write about them. As the world becomes increasingly visualised on screen through film, tv, advertising, social media and the internet, this course will teach students to decode the meanings behind the use of imagery

## Ireland's Wild History

From bears and wolves to birds and bees – Ireland has a rich natural history, with many animals once calling our little green island home. This class will take a look the animals that once called Ireland home as well as the native species that currently live here. We will also take a look at the status of our native species, how we study these species and what we can do to help. This class is always interesting as many people do not realise how amazing our plants and animals really are.

## Lights, Lasers & Illusions

This course will introduce our younger students to lasers, where through simple applications they will see how lasers function function, and get some idea of their multiple uses in science and healthcare. It will also study light, and conduct numerous experiments and demonstrations to help explain it. As well as explaining how light enables us to see, the course will then look at optical illusions, and how they manage to confuse our eyes

## Marine Biology

The exciting world under the sea! You'll get to learn about some interesting specimens such as sharks, dolphins and sea-turtles, and will get the chance to dissect fish to see how they differ from humans. You'll also get the chance to examine seaweeds, limpets and more and learn why they're important to sea-life surviving.

## Math Magic

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.

## 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 first-aid to hospital care. The course will trace the evolution of medicine from ancient times (where electric eels were used to number 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.

## Psychology

Psychology looks at human behaviour in action in the world. On this course, students will learn the principles of the different fields within Psychology, studying aspects such as cognition, personality, brain function, perception and social psychology. Learn about some of the practical aspects of where psychology comes into play such as eye-witness testimony, face perception, sound and visual illusions.

## 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. 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 2014 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.

## Volcanoes, Earthquakes, Tsunamis

This course will examine some of the natural disasters that the world experiences, and trace back the causes of such occurrences. The course will go deep into the earth to explain why volcanoes and earthquakes occur and how they affect the surrounding landscape. Examining the areas around the globe that are particularly susceptible to these natural disasters, students will learn how technology has been used to create warning systems and minimize the human impact. This exciting course will be of interest to anyone with an interest in science or geology.

## Write, Act, Perform

Write, Act, Perform will introduce students to the basics of creative writing and performance. It will foster a love of poetry and drama and focus on improving self-expression and confidence. Acting and public speaking will also be important parts of the course. All of this will be taught in a creative and imaginative way, giving students indispensable skills for professional and personal life. The session will end with a performance of poetry, drama and sketches written by students themselves.

## Zoology

This course will look at the greatest scientific marvel of all - Life on Earth. We will explore the world of great beasts on earth (sabre tooth tigers, woolly mammoths). The course will document the great diversity of life on modern earth - from the mighty blue whale in the seas to the animals of the Great Plains. We will also look at the wild world of Ireland and show the student that even at home, the more you know, the more you see.

## *Fantastic Physics*

Discover the amazing world of physics in this fun course. The most fundamental science, physics is responsible for much of how the world around you works. Sound, light, motion, electricity, astronomy, and even how your microwave works are all physics! This course will help students to get to grips with some of the central principles through familiar examples. It will encourage students to 'think scientifically' providing some opportunities to learn through practical and applied activities.

# Nurturing Talent, Maximizing Potential

# Application Form

Please click on the link in the email you received

***Please note if a course is not listed on the application form, it is because it is full***

# 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 for 8-12, €120 for 6-7.

### PAYMENT

**Online Card payment only**

Please follow the instructions on the application form for payment

# REFUND POLICY

No Refund will be made to any student who is assigned one of their course choices but decides not to attend.

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

Fees are non-transferable.

Please note that refund requests must be made in writing.

No refunds will be given after the application deadline has passed

# Terms & Conditions

CTYI courses may differ from the description. CTYI reserves the right to change the course accordingly and will inform parents of any changes during the course.

- Students who have already taken the assessment test and qualified, are not required to sit the test again. Any other student interested in participating in these classes should contact CTYI: ctyi@dcu.ie.
- Students may take part in either the morning or afternoon classes or both
- Places will be allocated on a first-come, first-served basis and by **completed online application only** (you will receive a copy of your application via email if submitted correctly)
- Enrolment is limited in many of the courses, so please choose course choices carefully.
- Refunds are not given for course withdrawals from courses chosen.
- Students will receive email confirmation of their course assignment & zoom link after the application deadline: Friday 30th April 2021 and before classes begin

CTYI reserves the right to cancel or alter any course if, due to unforeseen circumstances the course cannot be run economically or efficiently.

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;


**Young Student Manager**
Lynne Mooney
lynne.mooney@dcu.ie

**Academic Coordinator**
Dr. Leeanne Hinch
leeanne.hinch@dcu.ie


Over 25 Years Providing Specialised
Courses for Gifted Children in Ireland

DCU
Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

# Nurturing Talent, Maximising Potential

## Application Deadline

## Friday, April 30th 2021

@CTYI

CentreforTalentedYouthIreland

Centre for Talented Youth, Ireland
Dublin City University
www.dcu.ie/ctyi
ctyi@dcu.ie