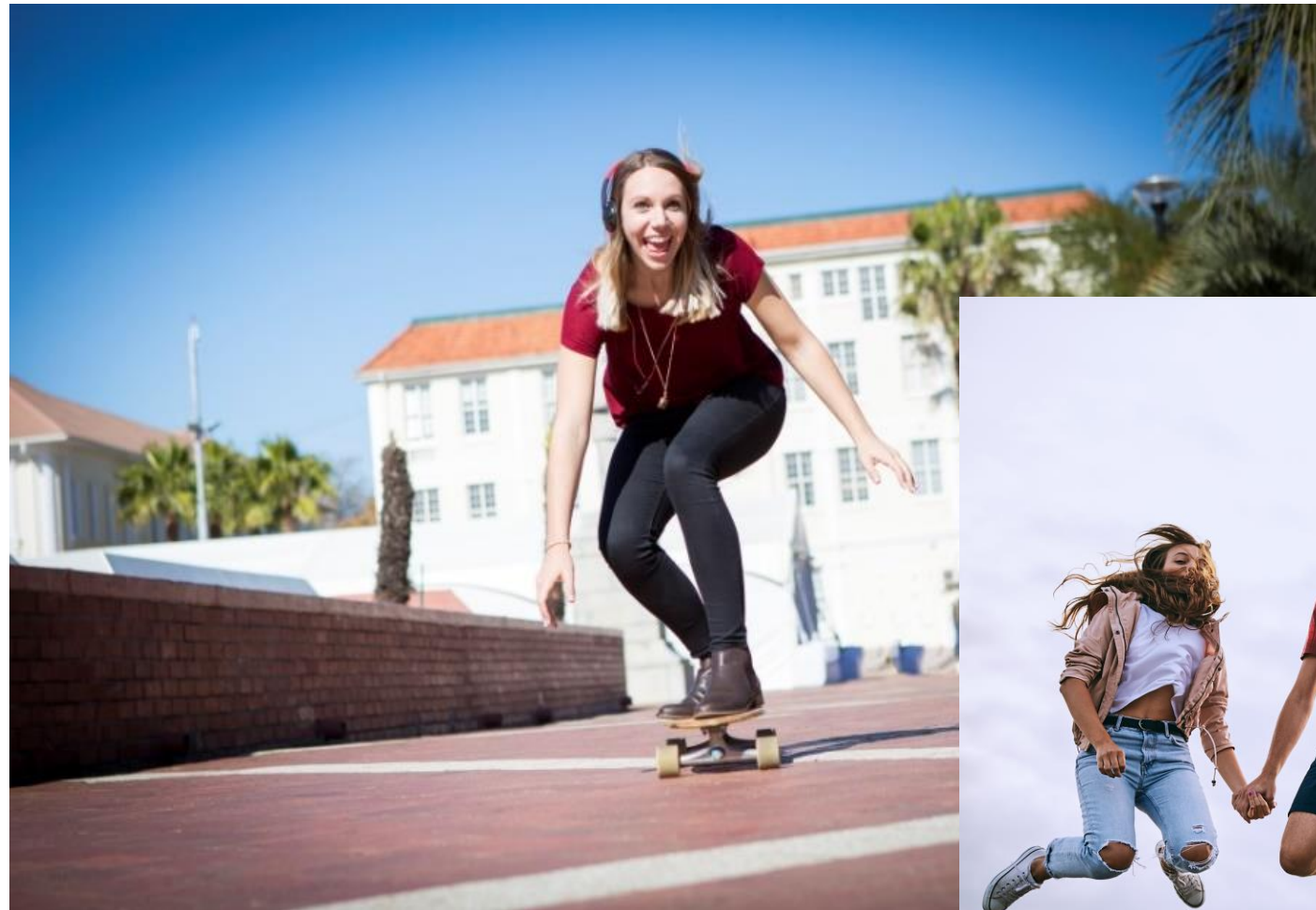


**STARTING
SOON...**

01:00

SOPHia for Science!



DR TOFAIL SYED

Head of Department of Physics,
University of Limerick

DR GRÁINNE WALSHE

Project Lead, SOPHia

ELORA MCFALL

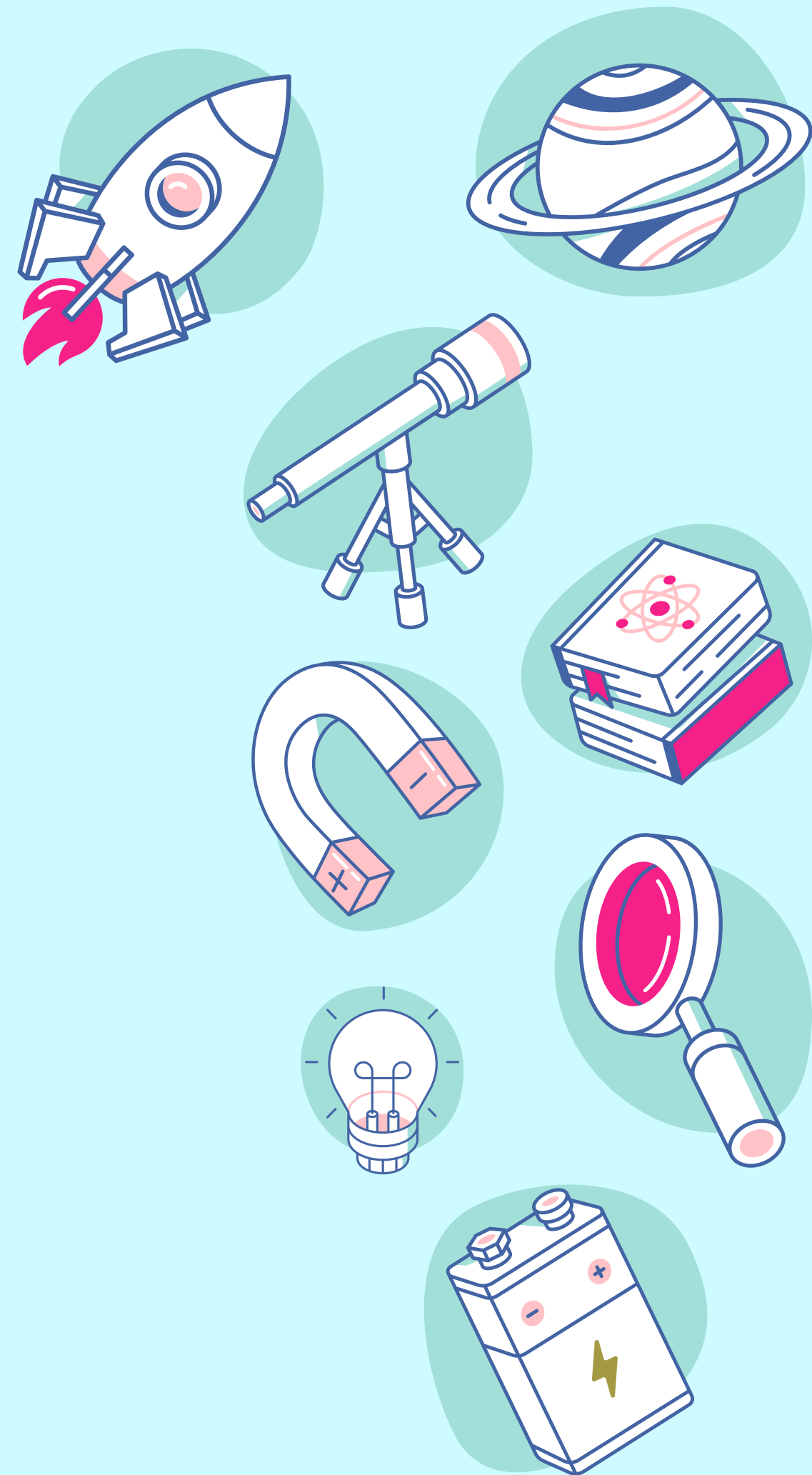
Coordinator & Facilitator, SOPHia

KELLY FITZGERALD

Education Officer, Tait House

SOPHIA PHYSICS POSTER COMPETITION

Upper Primary
Special Prizes

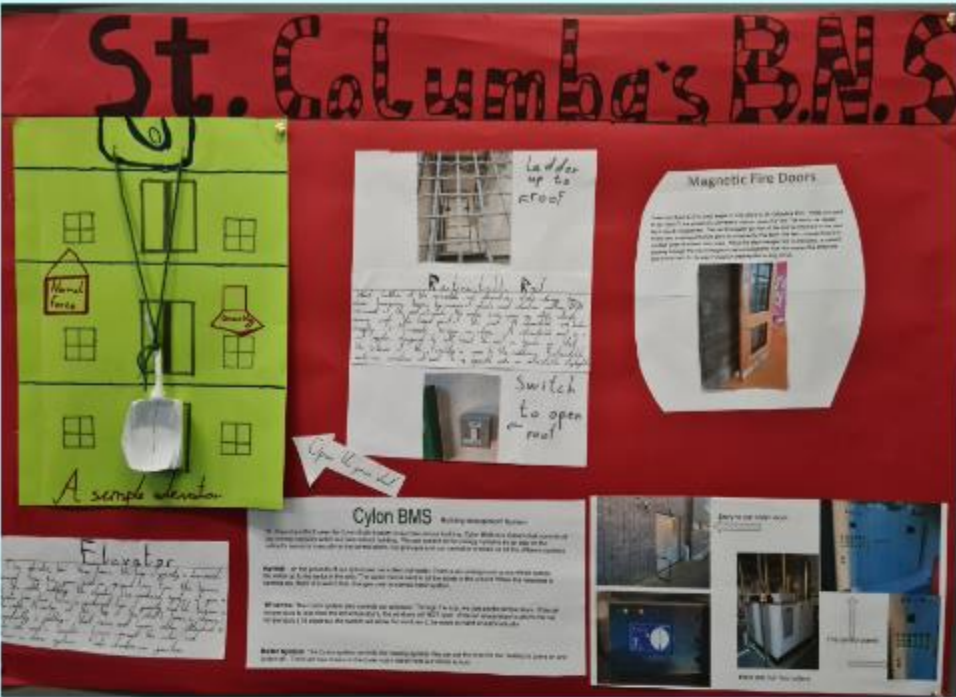
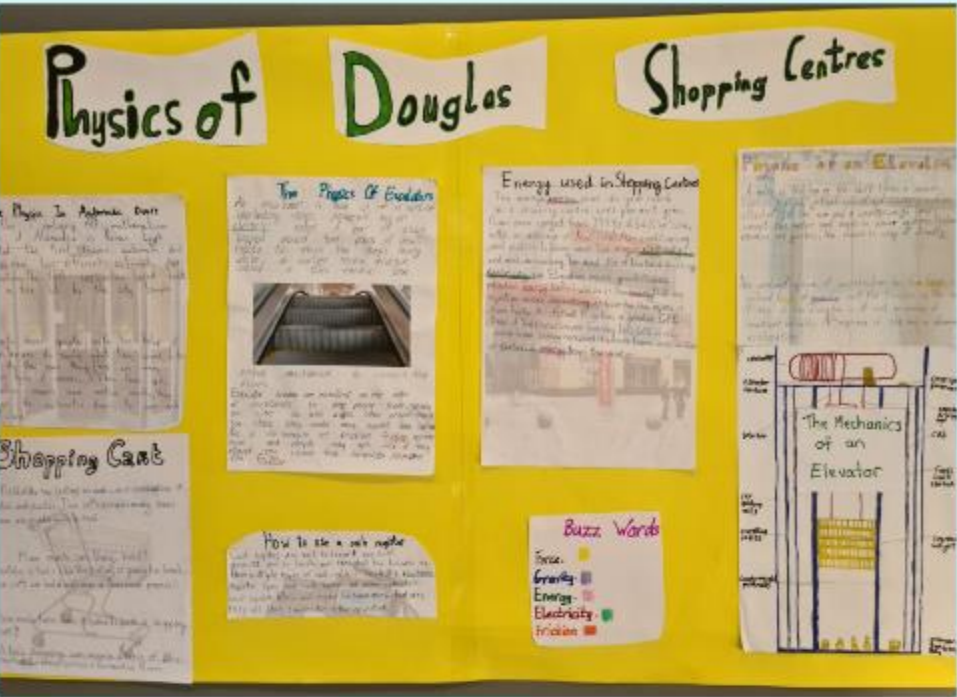


St Columba's BNS Douglas



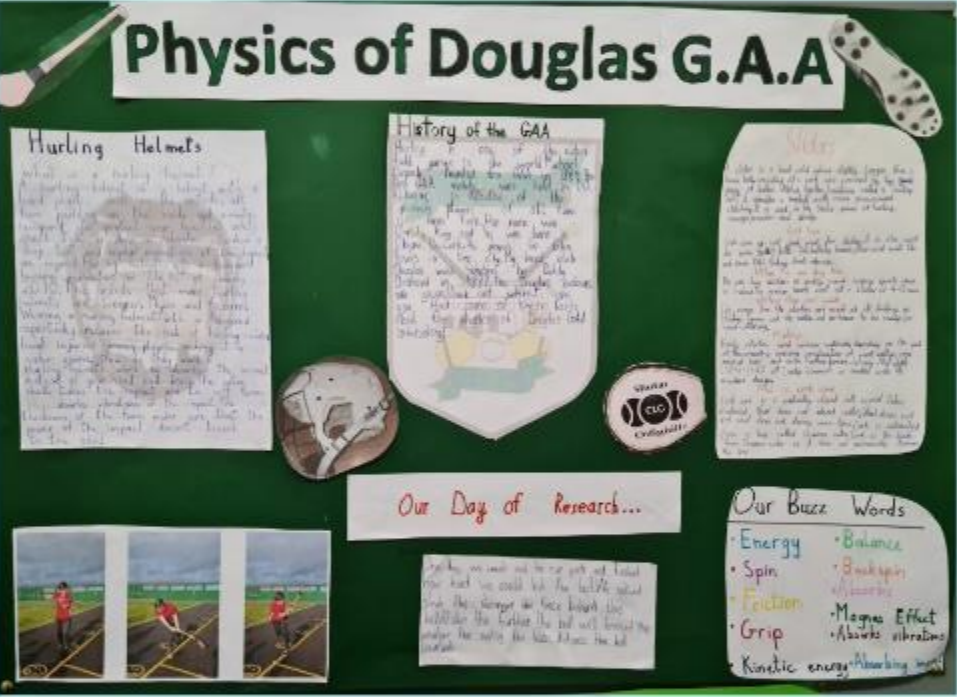
Physics in the
World Around Us

Jakub Dworzecki, Benson
Kirara, Michael Hall,
Connor Drummy, Nicki Hari
& Kian O'Leary



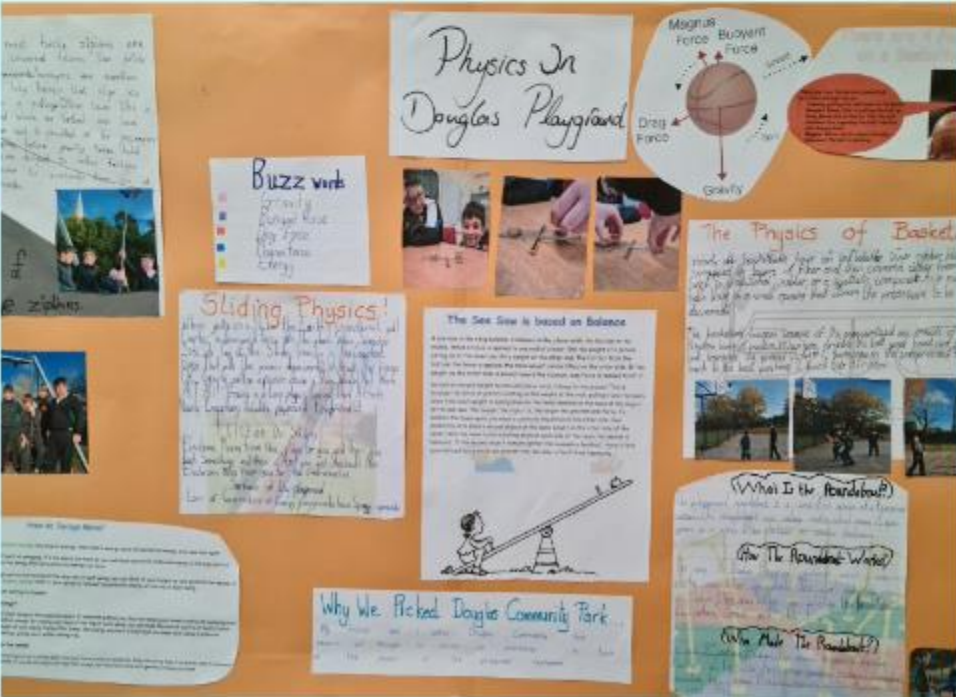
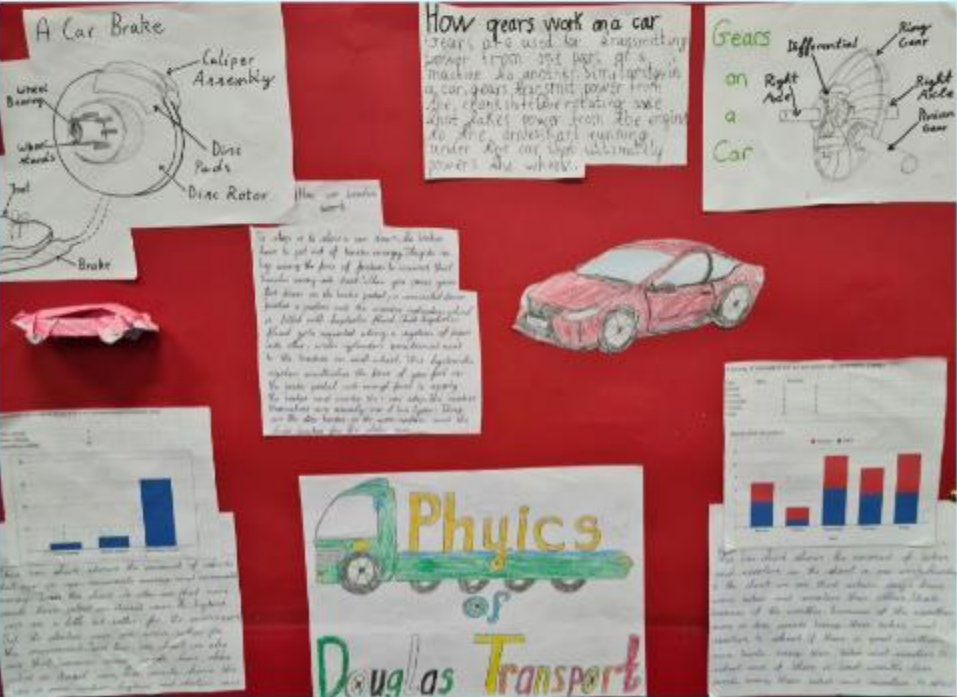
Krystian Bartnik, Declan
Omahony, Robbie Hackett
& Eric Ouyang

Sean Harrington, Ronan
O'Sullivan, Teo Sime, Dmitrij
Semionov, Leo Reidy
& Conor Hughes



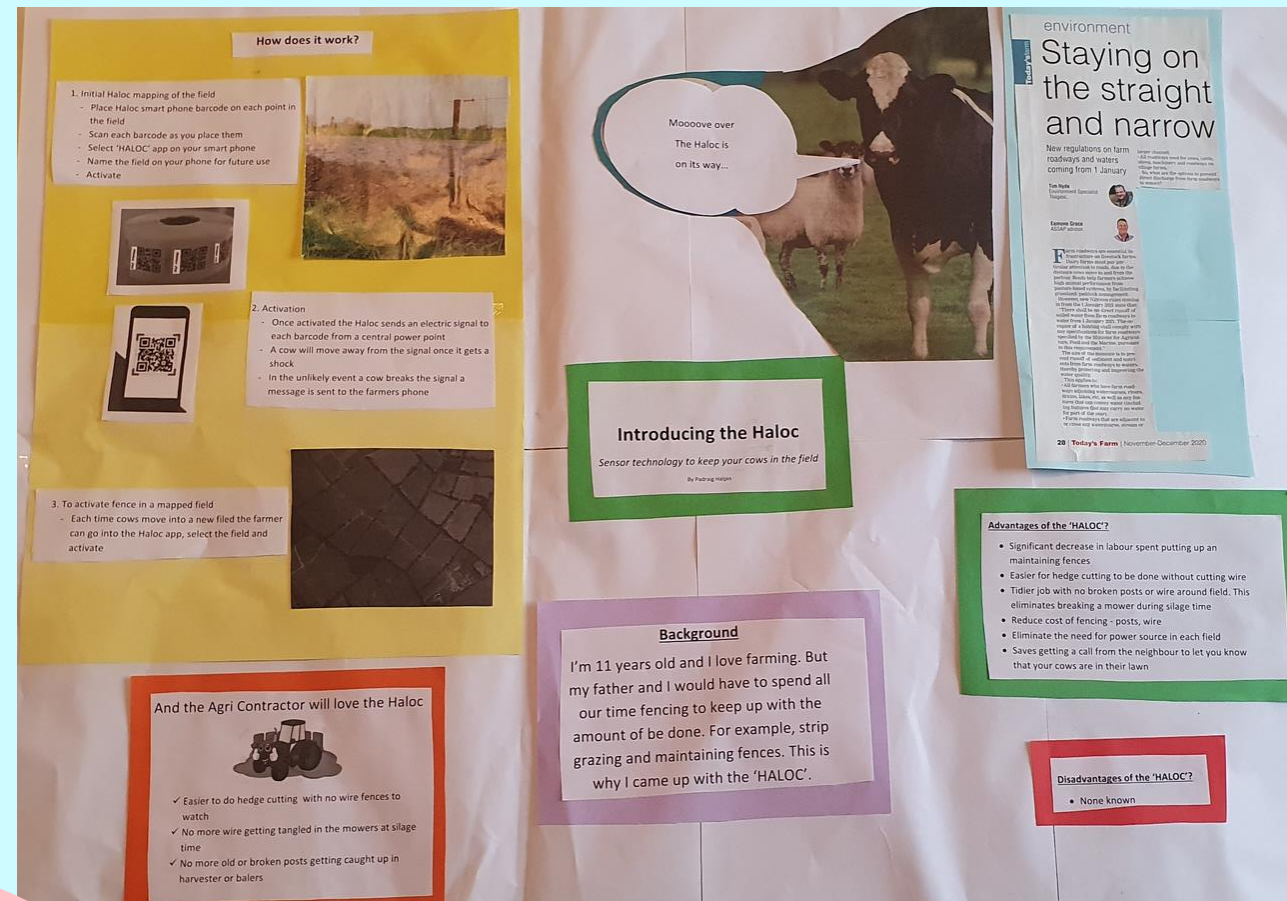
Fran Levatic,
Daniel Yersis,
& David Kelleher

Victor Wilson,
Anthony McCarthy
& Emmanuel Oguoguo



Joshua O'Driscoll, Adam
Cremin, Darragh Lynch, Leon
Murphy, Richard Nkoyeale,
Dalius Pogozeleskis
& Mihai Onofrei

Development & Design of the HALOC



Innovation
Padraig, Knocklong NS

Physicists Paving the Way for the Future

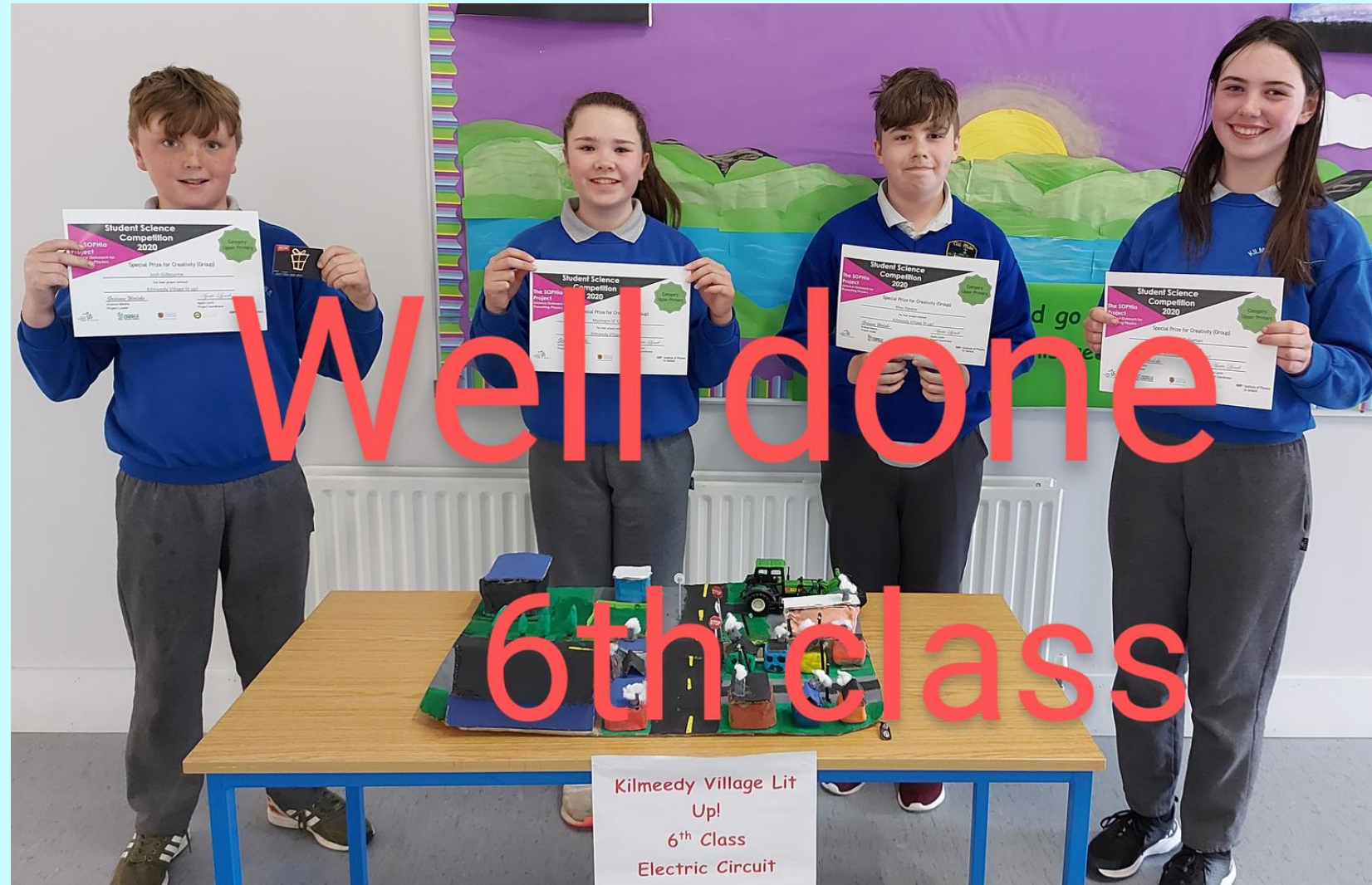


Influencers for Change

Aoife & Faye,
Gaelscoil Na Laochra

Kilmeedy NS

Muireann, Áine,
Rhys & Josh



Well done
6th class

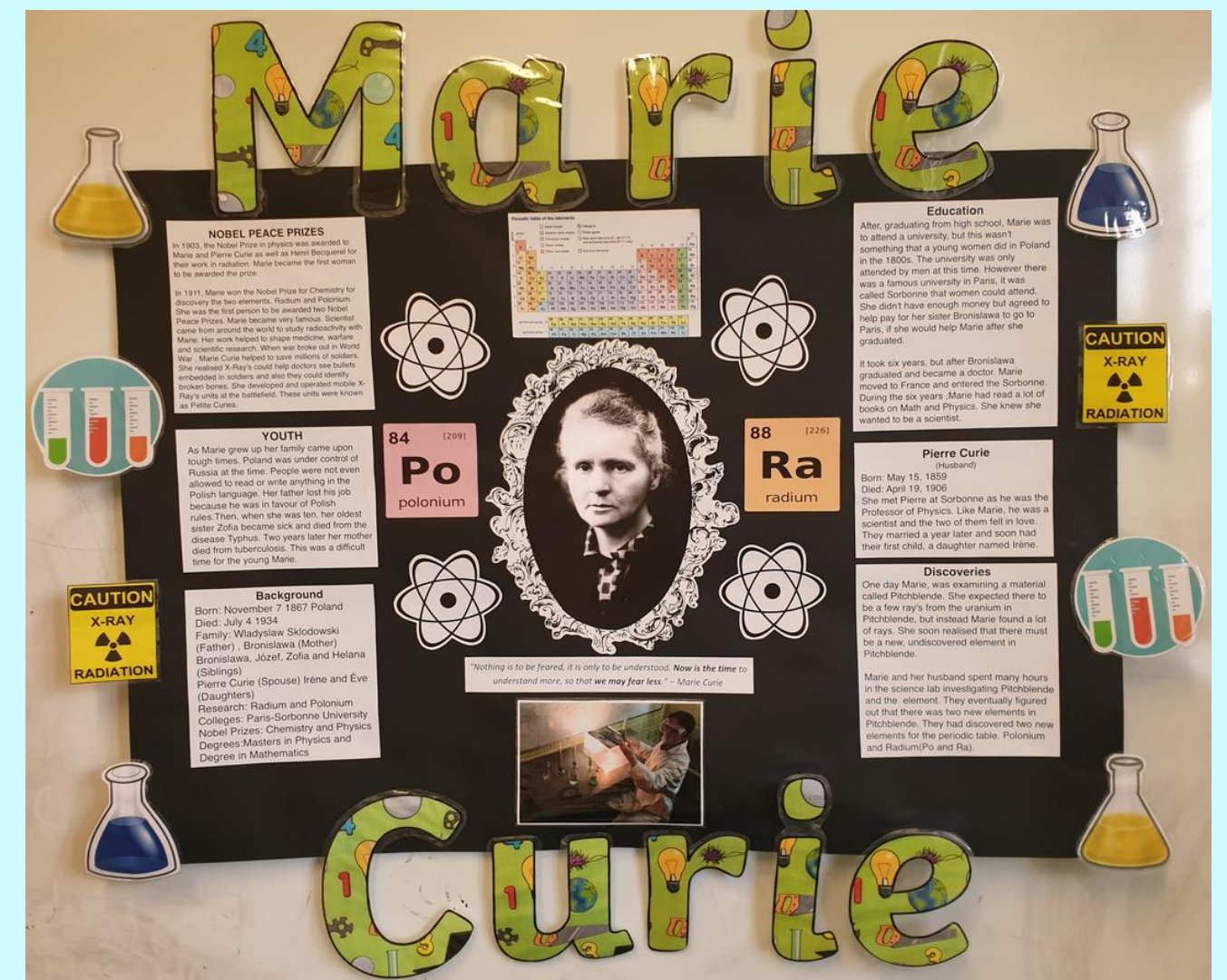
Creativity

Group Winner

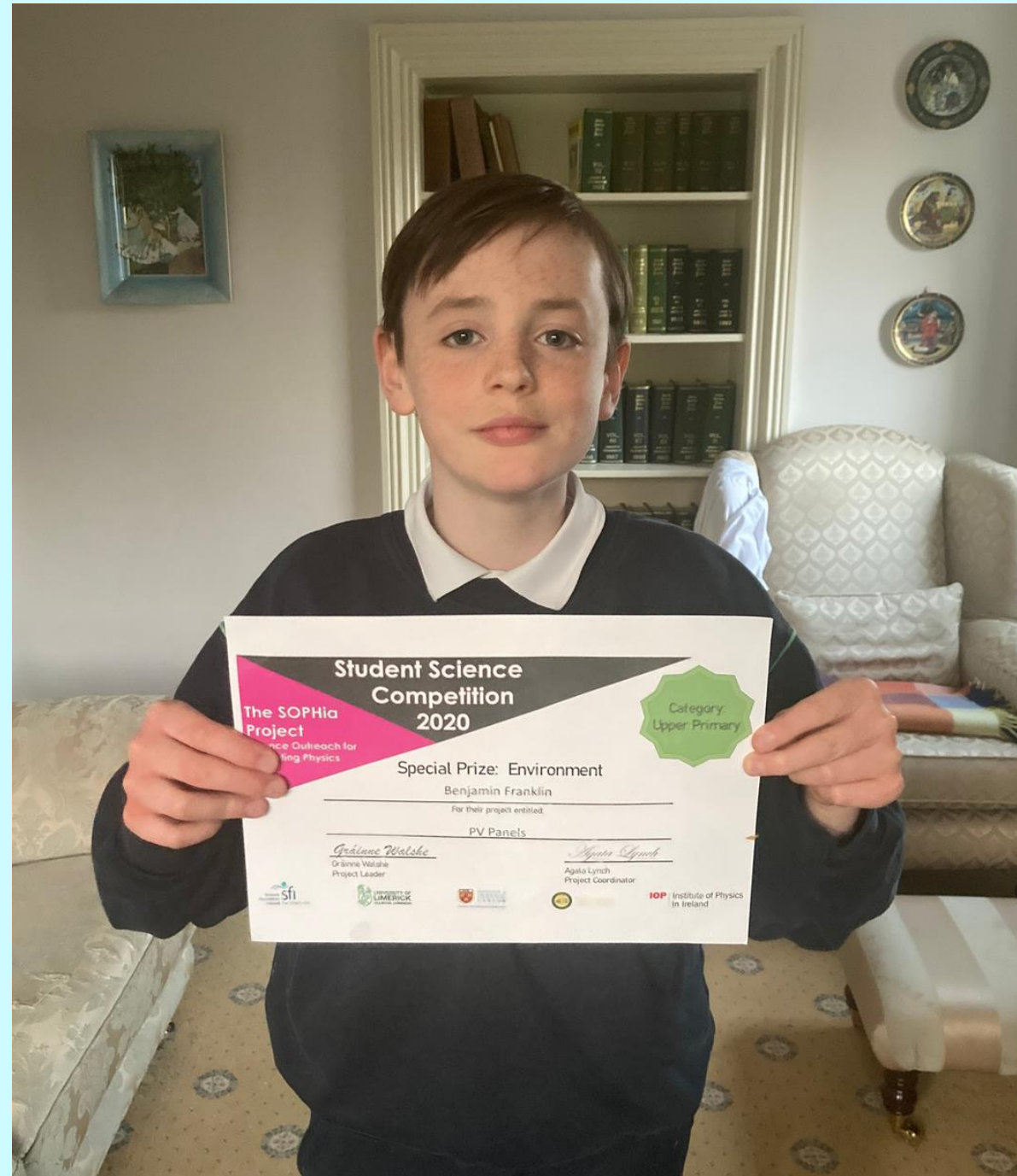


Sorcha Kyle NS

Creativity Individual Winner

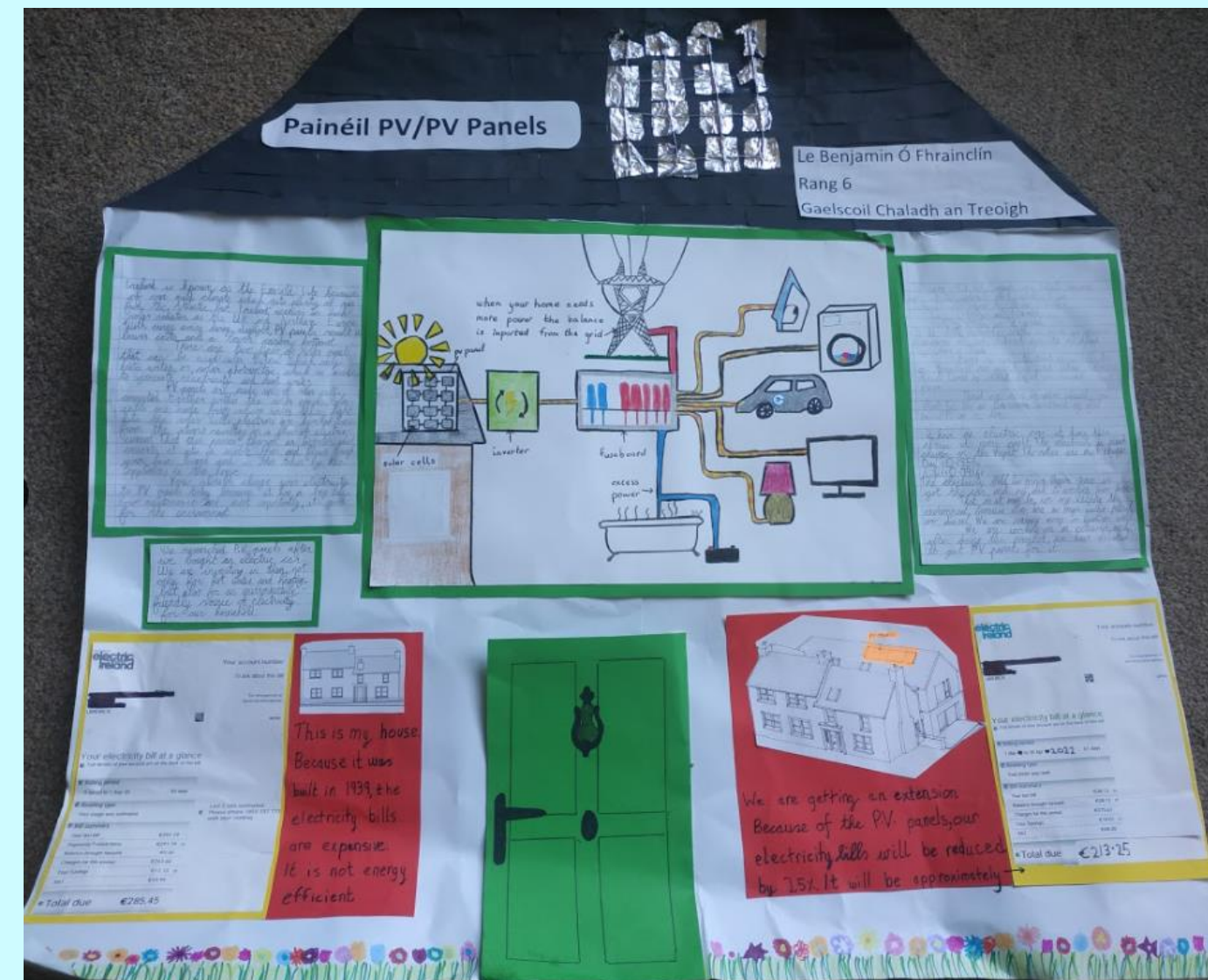


PV Panels



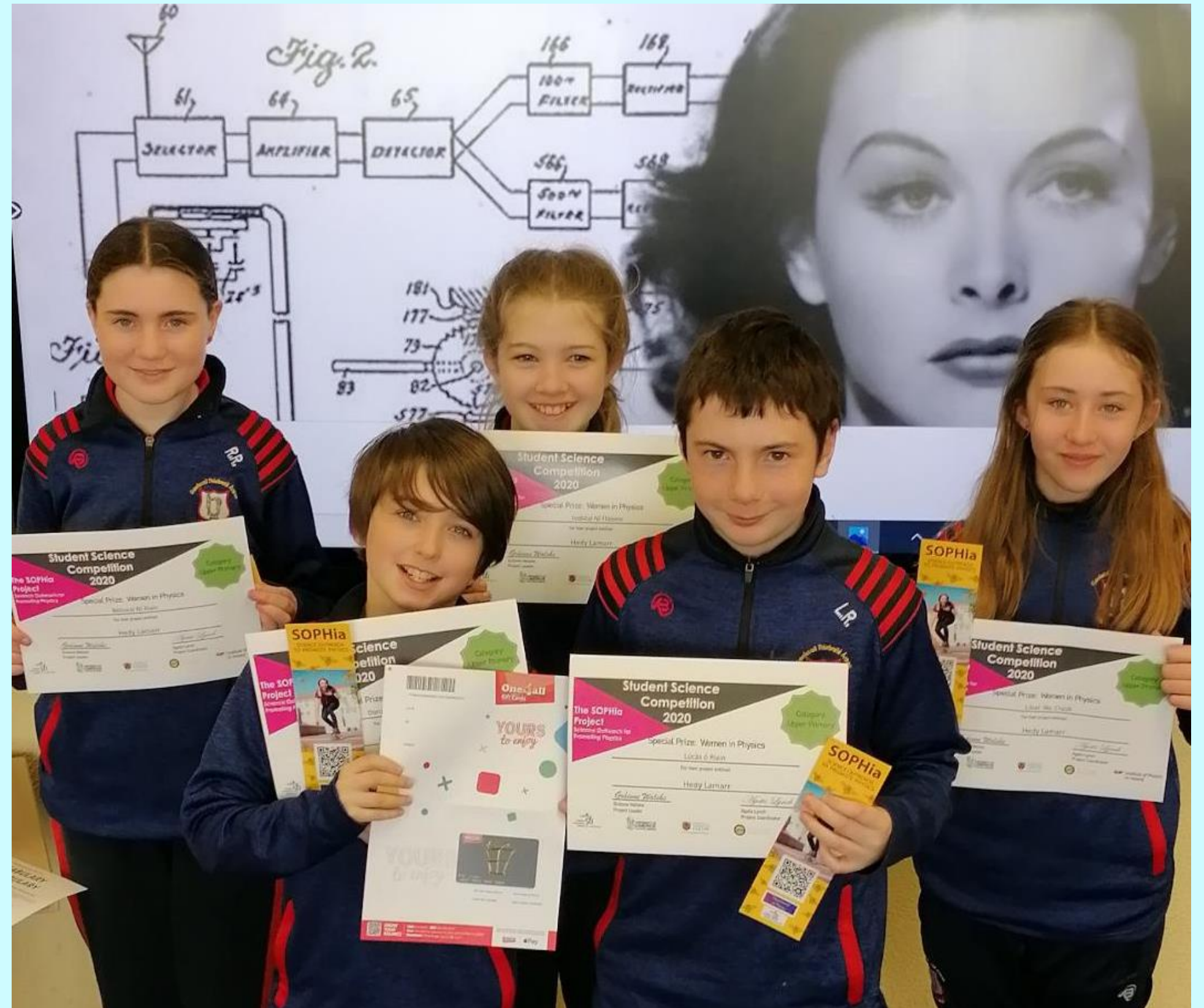
Environment

Benjamin,
Gaelscoil Chaladh an Treoigh



Hedy Lamarr

Réitseal, Lúcas, Donagh,
Lusaí agus Isobéal



Women in Physics

Gaelscoil Thiobraid Árann

UPPER PRIMARY - Special Prizes

Physics in the
World Around Us

5th Class

St Columba's BNS, Douglas

Innovation

Pádraig Halpin

Knocklong NS

Influencers
for Change

Aoife and Faye

Gaelscoil na Laochra, Birr

Creativity (group)

Muireann O' Connor, Josh Gilbourne,
Áine O' Callaghan and Rhys Devine

Kilmeedy NS, Limerick

Creativity (individual)

Sorcha O'Rourke

Kyle NS, Youghal

Environment

Benjamin Franklin

Gaelscoil Caladh an Treoigh

Women in Physics

Réitseal Ní Riaín, Donagh Ó Maoltuile,
Lúcás ó Riain, Lúsaí Nic Craith
and Isobéal Ní Fhloinn

Gaelscoil Thiobraid Árann

SOPHIA PHYSICS POSTER COMPETITION

Upper Primary
Group Winners



Physics on the Farm

Matthew,
Michael
& Ronan

4th

Group Winner

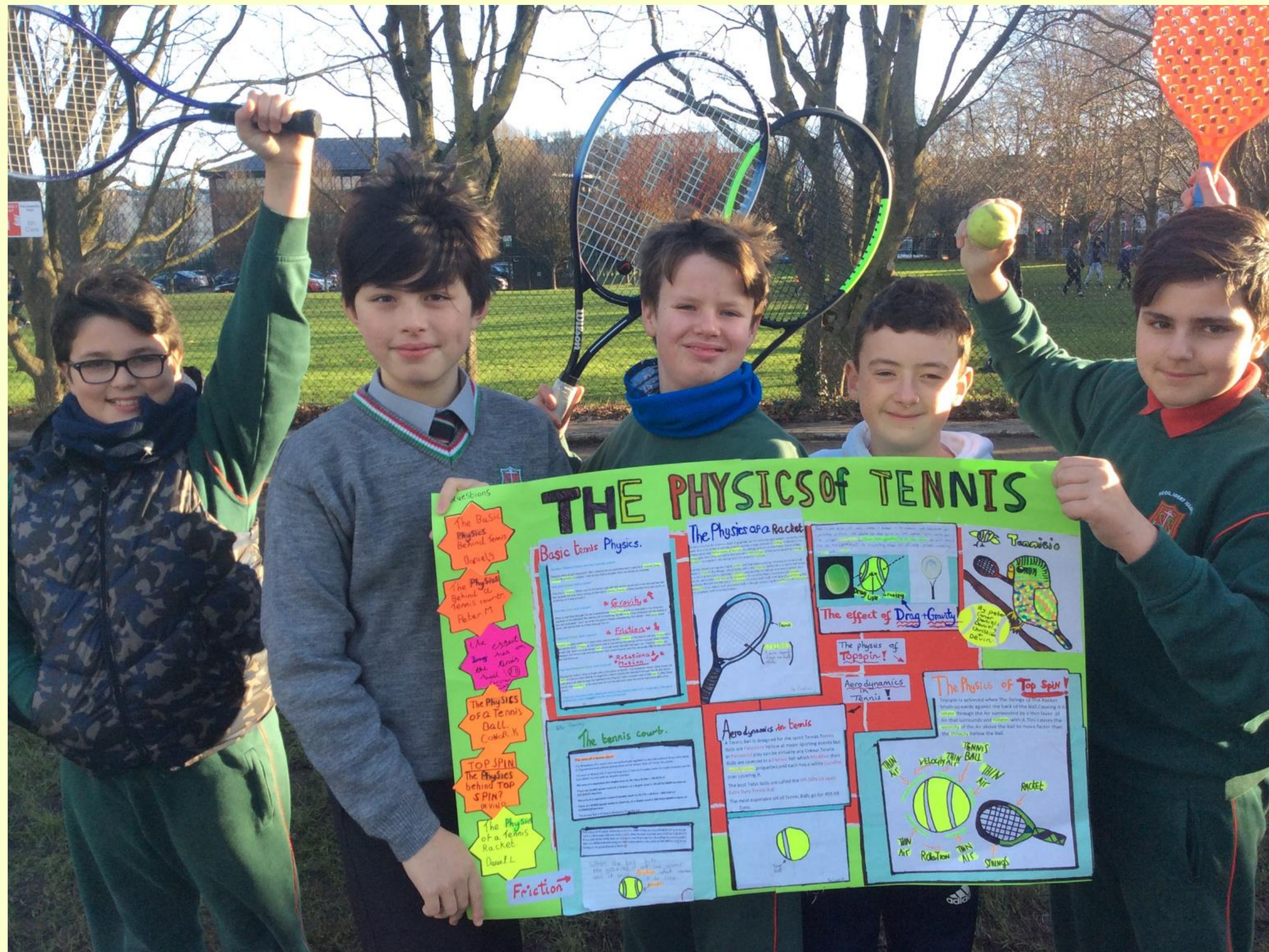
Caherelly NS



The Physics of Tennis

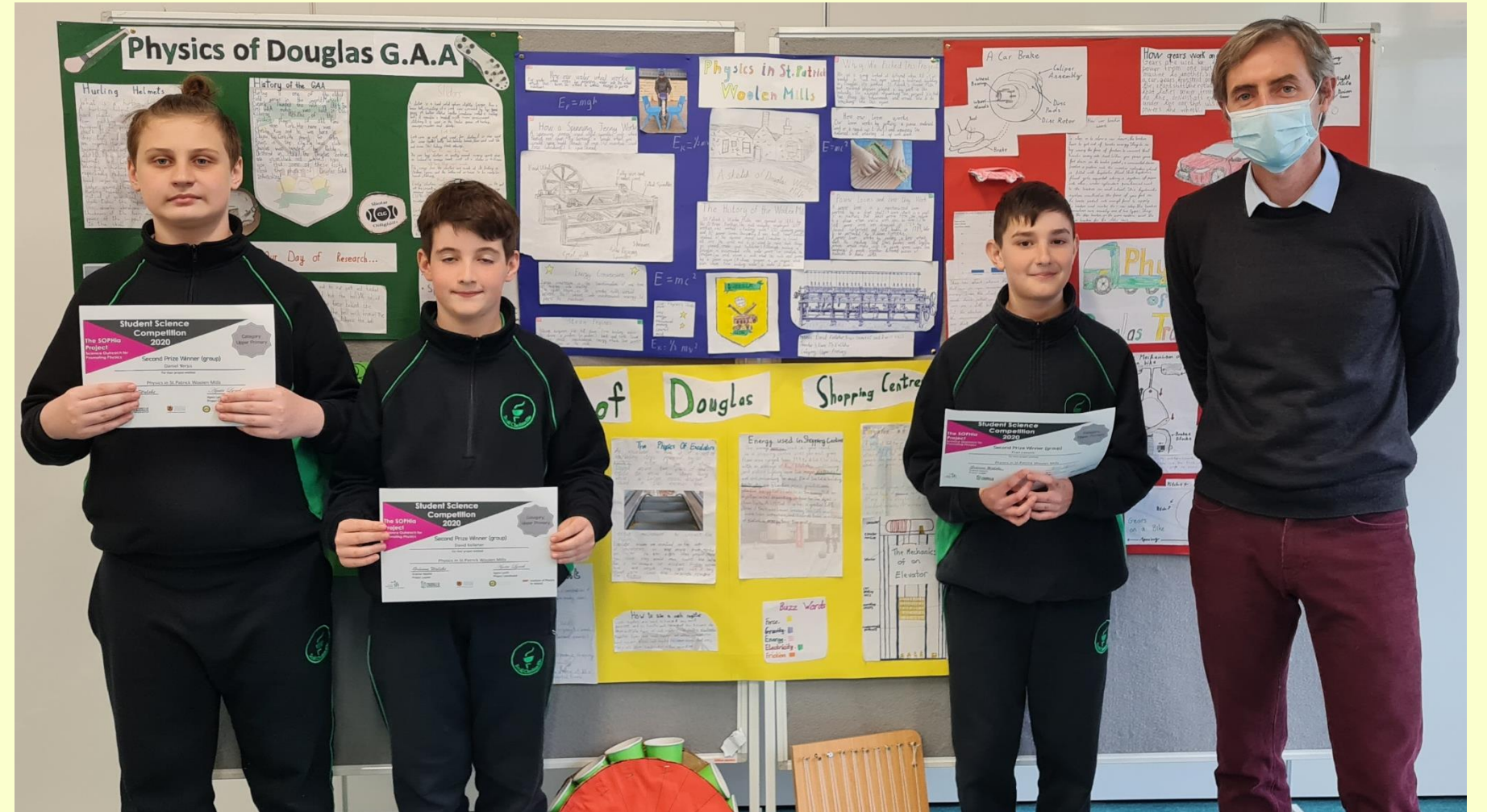
Peter, Daniel,
Devin, Christian,
Conor & Daniel

3rd
Group Winner
St Joseph's NS

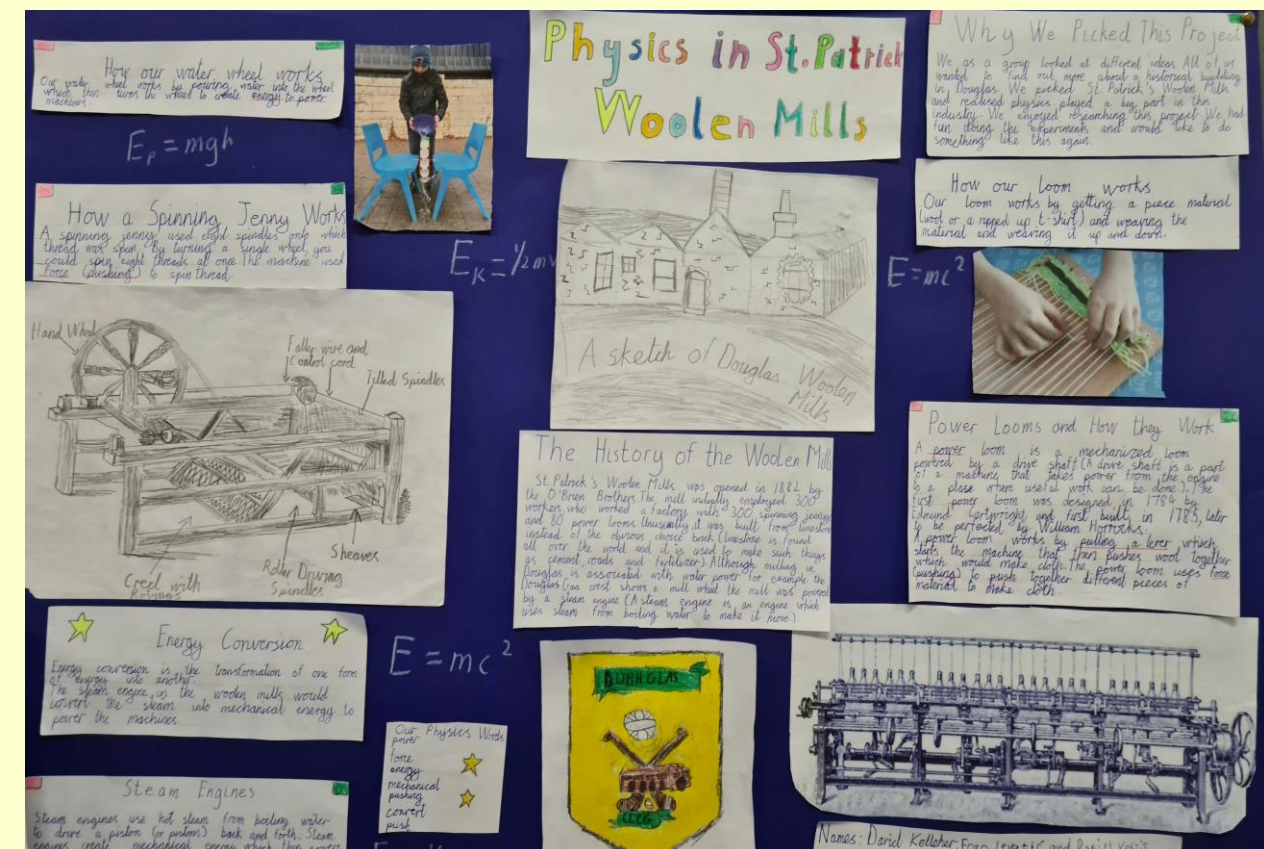


Physics of St Patrick's Woolen Mills

David,
Daniel
& Fran



2nd
Group Winner
St Columba's BNS



Two Metres, Too Little



1st

Group Winner

Scoil Ide

6th Class

UPPER PRIMARY - Group Winners

1st place

6th Class

Scoil Íde, Corbally,

2nd place

Fran Levatic, Daniel
Yersis & David Kelleher

St. Columba's BNS,
Douglas

3rd place

Peter, Daniel, Devin,
Christian, Conor & Daniel

St. Joseph's NS, Cork

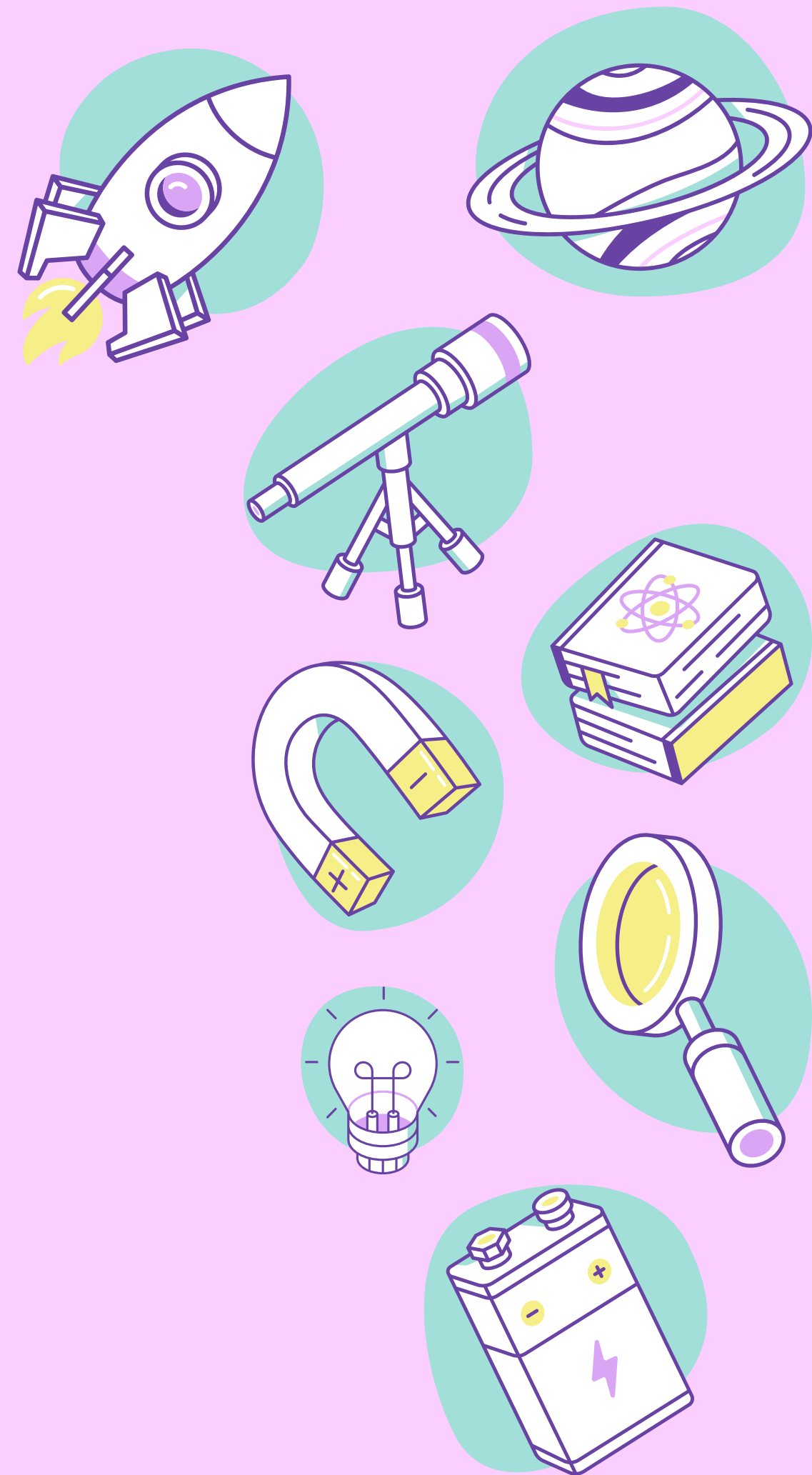
4th place

Matthew,
Michael & Ronan

Caherelly NS

SOPHIA PHYSICS POSTER COMPETITION

Upper Primary
Individual Winners



Solar Eclipse

4th

Individual Winner

Clodagh

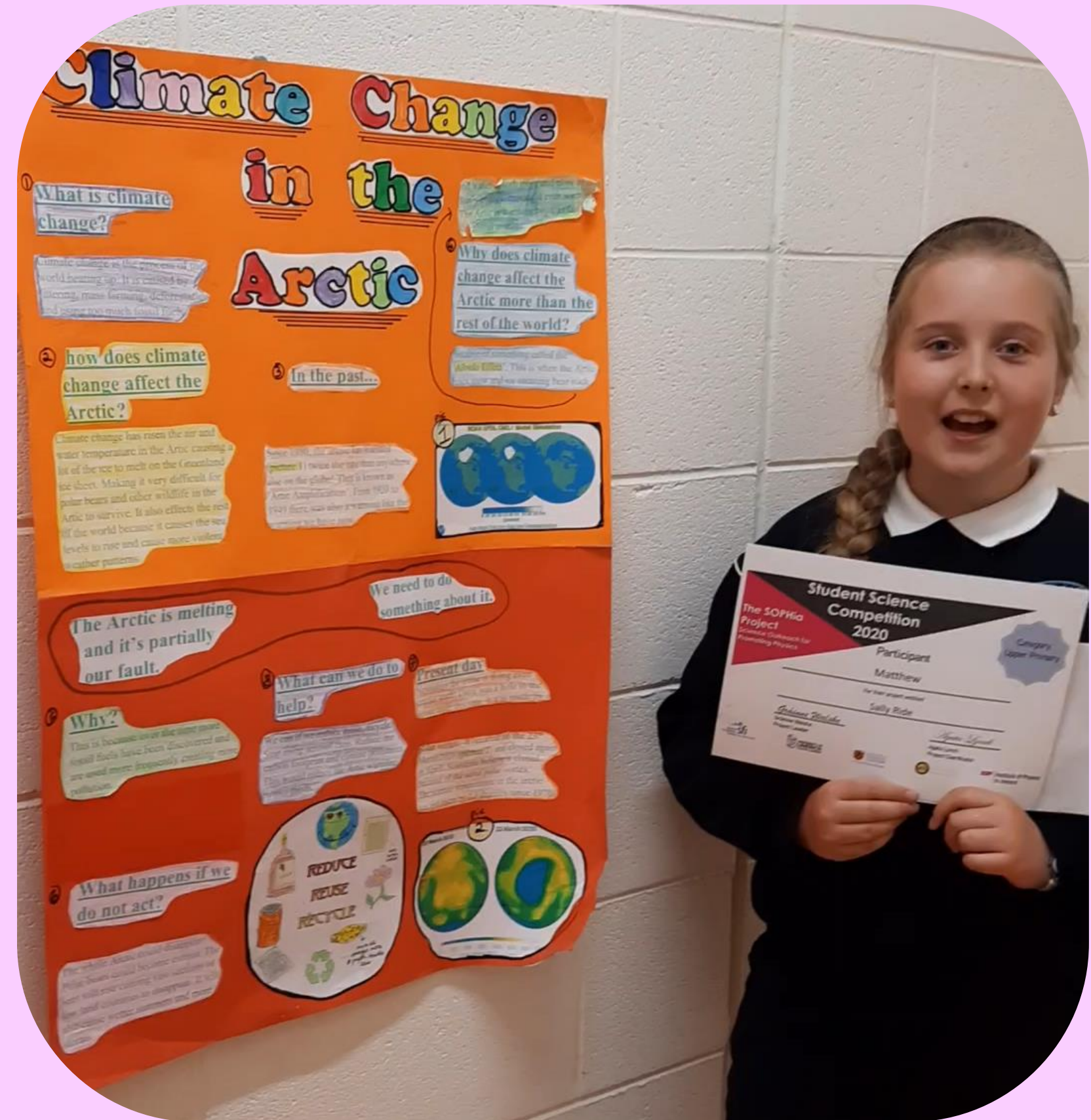
Scoil an Spioraid Naomh



Climate Change in the Arctic

3rd
Individual Winner

Aoife
Clondroihid NS



Women Who Changed the World of Physics

2nd

Individual Winner

Katelyn

Little Flower NS



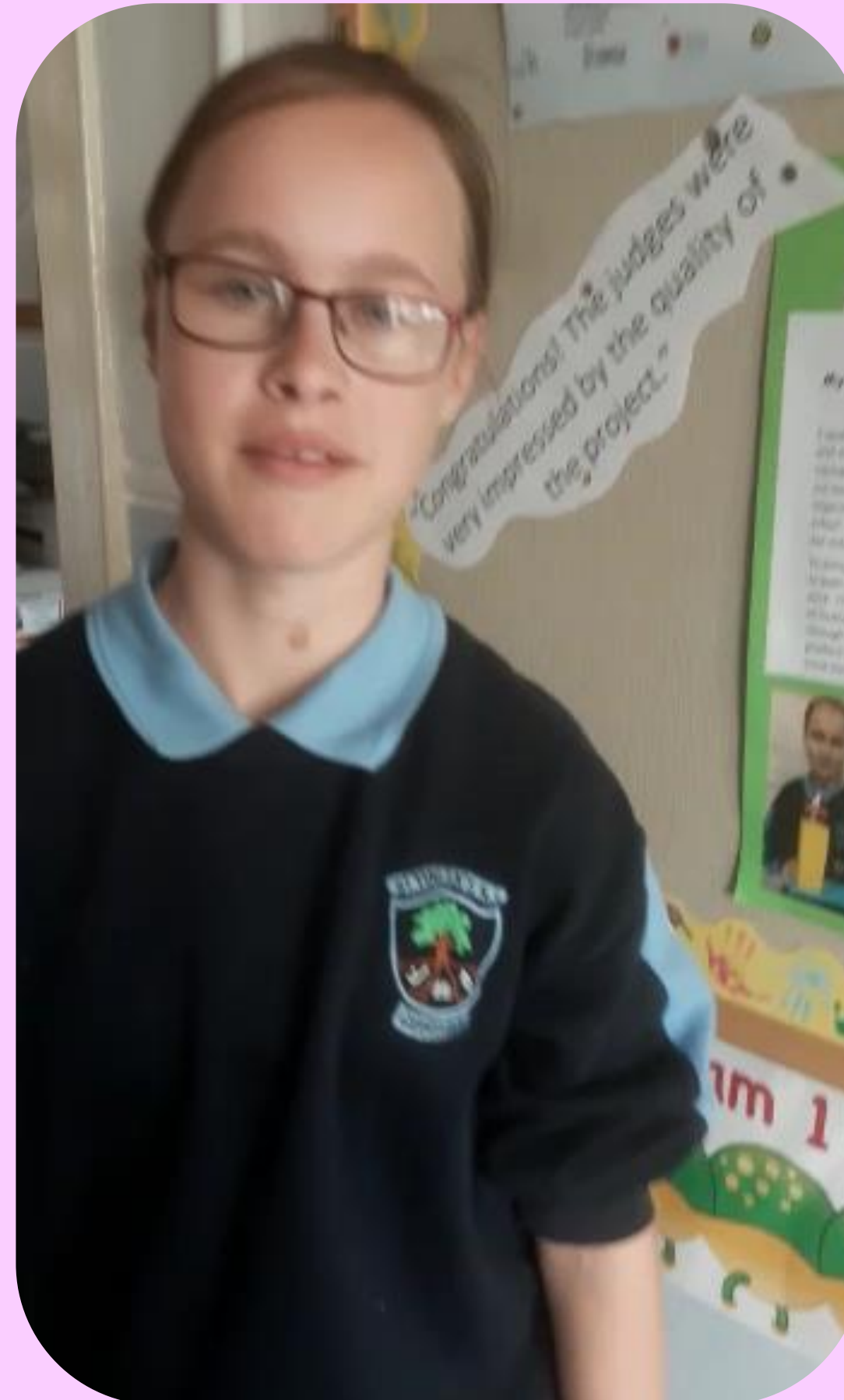
Hydrolics in Action

1st

Individual Winner

Rachel

Garryhill NS



UPPER PRIMARY - Individual Winners

1st place

Rachel Byrne

Garryhill NS, Carlow

2nd place

Katelyn Barry

Little Flower NS,
Ballytarsna

3rd place

Aoife O'Connor

Clondrohid NS, Macroom

4th place

Clodagh Quinn

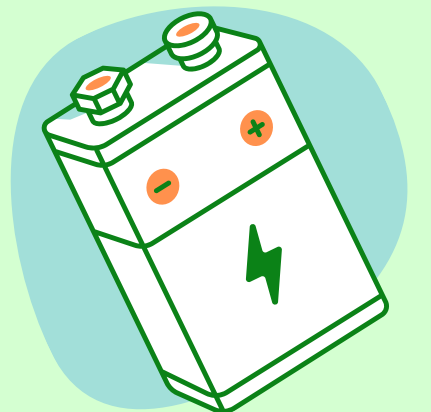
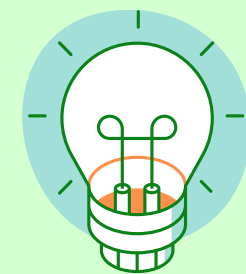
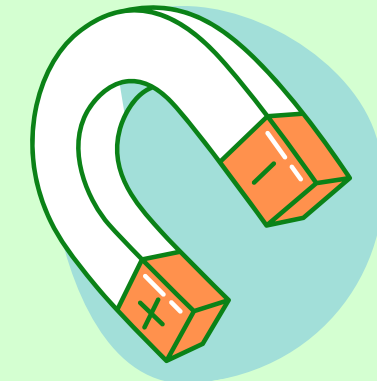
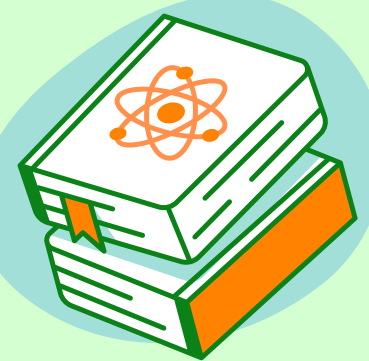
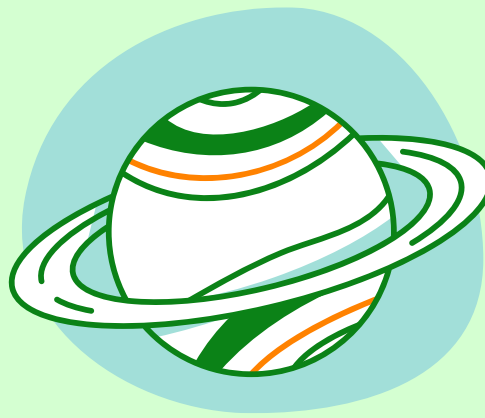
Scoil an Spioraid Naoimh,
Roxborough

LUCY KINGHAN

IOP Institute of Physics
Ireland

SOPHIA PHYSICS POSTER COMPETITION

Junior Cert
Special Prizes



Electrostatics and Aerial Electroreception in Bees

Environment

Shauna

Castle Island Community College



Scorpion Detector



Innovation

Sofia

Christ King Secondary School

SCORPION DETECTOR PROJECT

Introduction

I have lived in Mexico, where scorpions are a big problem. More than **1400** people died by scorpion stings and **300000** people are stung by this arachnid, most of **them young people**. This is why I start to think that it would be great to detect scorpions even before they get inside your house.

Initial Ideas

I was thinking that this device could be installed in every access of the house. The **main problem** that I realised was ,how to **distinguish** a scorpion from other things or insects? Some ideas come to my mind. One of them was using a **shape detector** but it would be with low accuracy, so I started to do a research to find a way to detect this **arachnid**.

Research

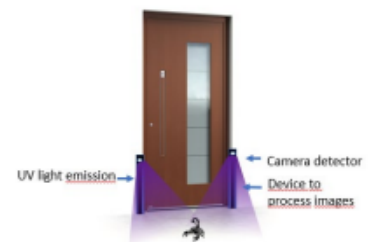
After some research, I found an article saying that the scorpions have some **fluorescence** (blue-green) that can be seen when you enlight them with **ultraviolet radiation** with a **length of 350-400 nm**. For unknown reasons the shell is ultraviolet sensible.

Hypothesis

If we shoot small **ultaviolet waves** to the scorpion, our detector can see if the arachnid get fluorecence and we can identify the shape.

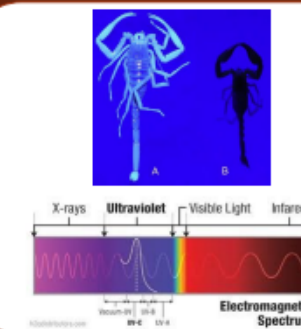
Desing Ideas

- The main component is the **UV radio** emition device with a lenght **350-400 nm**.
- The detector will have a small **camera** that will come with a **shape** detector.
- It will come with a **movement** detector.
- One detector in each side of the door to more efficiency.
- It will have a software that the device will send you a mobile notification when it detects an scorpion.



Conclusion

In my opinion, this device will help families to feel safer and without fear that a scorpion can stung there chिल्ds, making more safe the home that you love.



Exoplanets

Space

David
St Francis College



Rochestown College

@rococork

Congratulations again to David Nowojewski (2B) who has won the space category in the [@sophiaphysics](#) competition for his poster on Exoplanets. Here is Mr McCarthy presenting David with his prize and certificate today. A wonderful achievement! 🙌🚀🌍
[#sophiaphysics](#) [#exoplanets](#)



Stephanie Kwolek



Women in Physics

Sinéad
Coláiste Íde

JUNIOR CERT - Special Prizes

Innovation

Sofia Salinas-Espinoza

Christ King Secondary
School, Cork

Space

David Nowojewski

St.Francis College,
Rochestown

Environment

Shauna O' Keeffe

Castle Island Community
College, Kerry

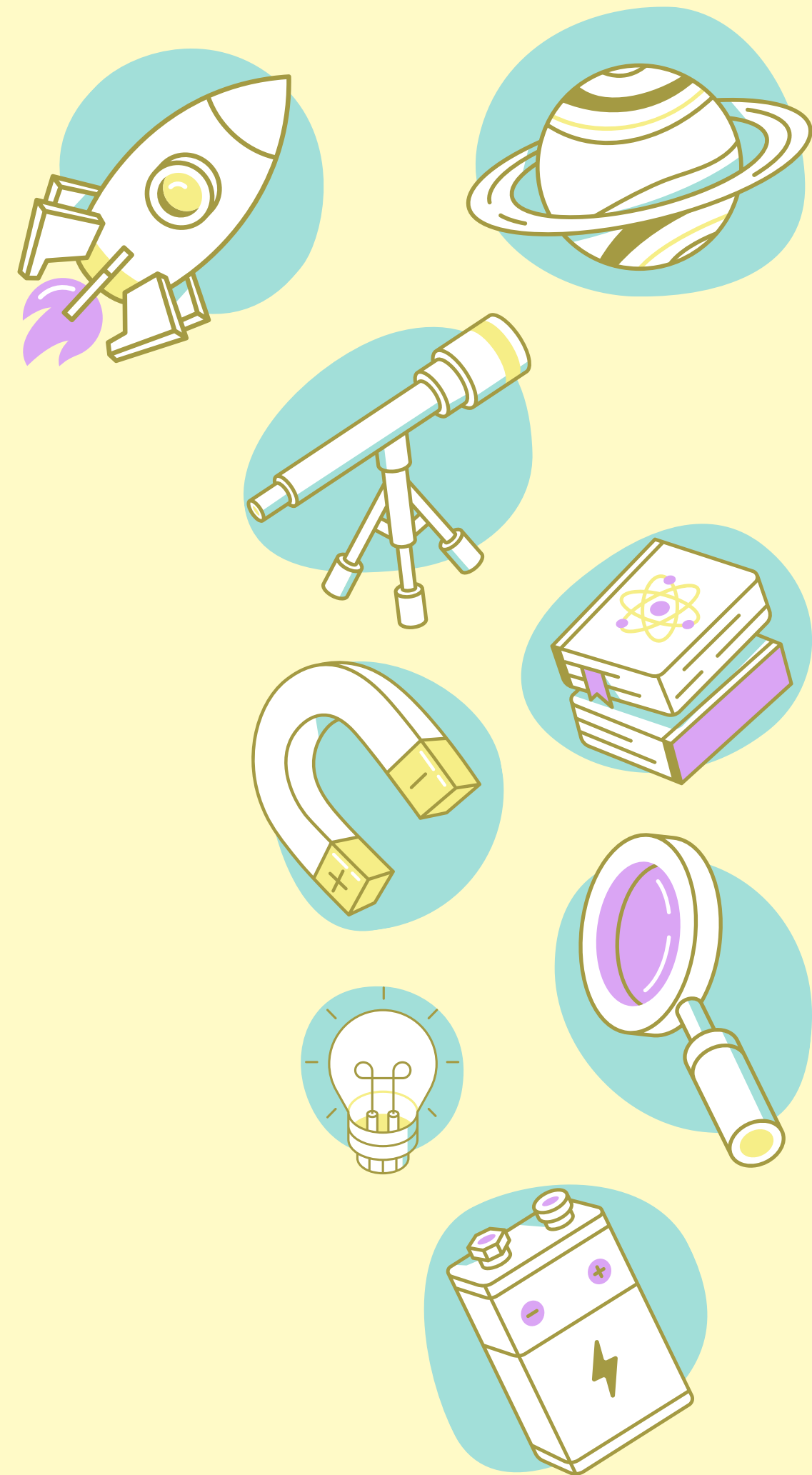
Women in Physics

Sinéad de Burca

Coláiste Íde, Kerry

SOPHIA PHYSICS POSTER COMPETITION

Junior Cert
Group Winners

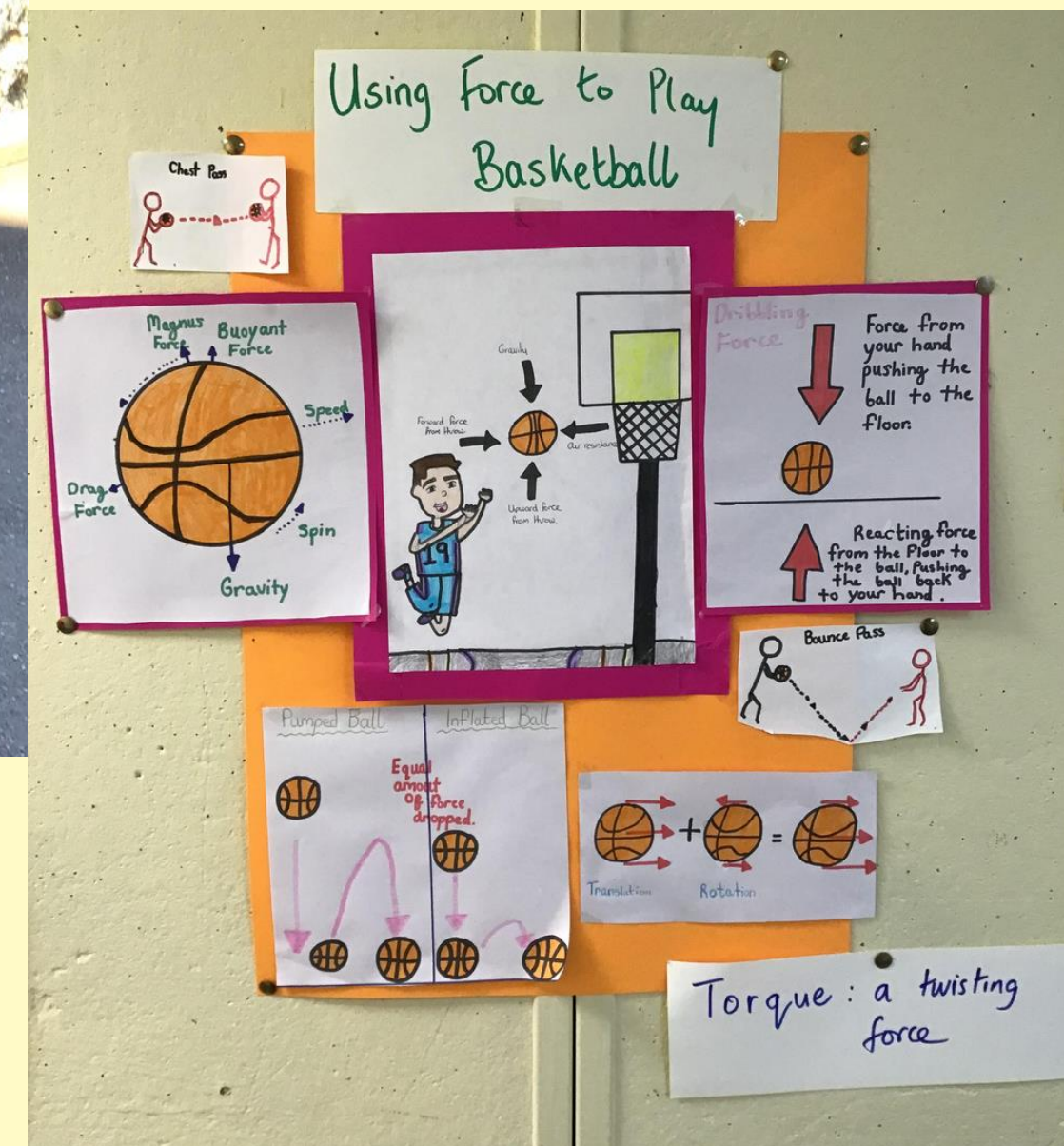


Forces Used to Play Basketball

Leanne &
Rhiannon

4th
Group Winner

St Vincent's, Cork



Physics Behind the Shark

Orla, Diana & Miriam

3rd

Group Winner

St Anne's, Tipperary



SODA ROCK-IT

Fia, Elyse
& Eimear

2nd

Group Winner

Presentation, Milltown



Physics Supporting Key GAA Decisions

Chloe, Emma, Lily,
Isabelle & Sophia

1st

Group Winner

St Anne's, Tipperary



JUNIOR CERT - Group Winners

1st place

Isabelle, Emma, Lily,
Chloe and Sophia

St Anne's Secondary
School, Tipperary Town

2nd place

Fia Whelan, Elyse Barrett
& Eimear Coffey

Presentation Secondary
School, Milltown

3rd place

Diana, Orla & Mariam

St Anne's Secondary School,
Tipperary Town

4th place

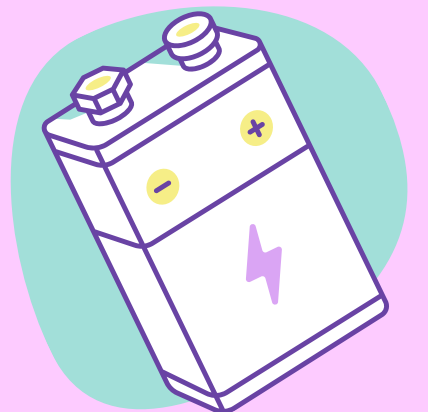
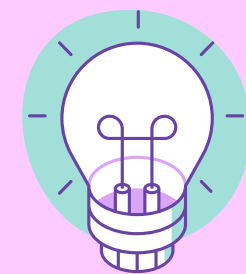
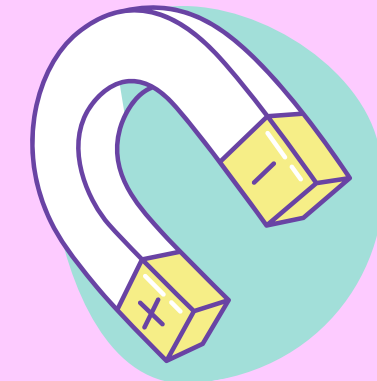
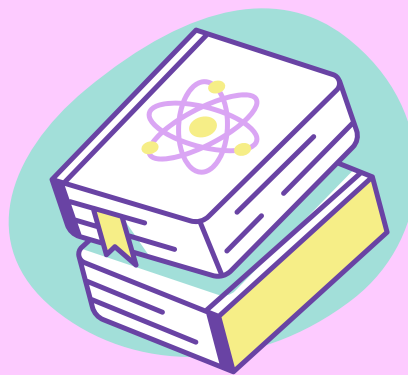
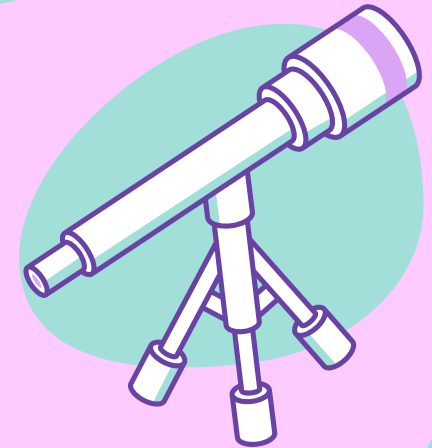
Leanne Higgins
& Rhiannon

St. Vincent's Secondary
School, Cork

SOPHIA PHYSICS POSTER COMPETITION

Junior Cert

Individual Winners



Fuinneamh agus Teas

4th
Individual Winner

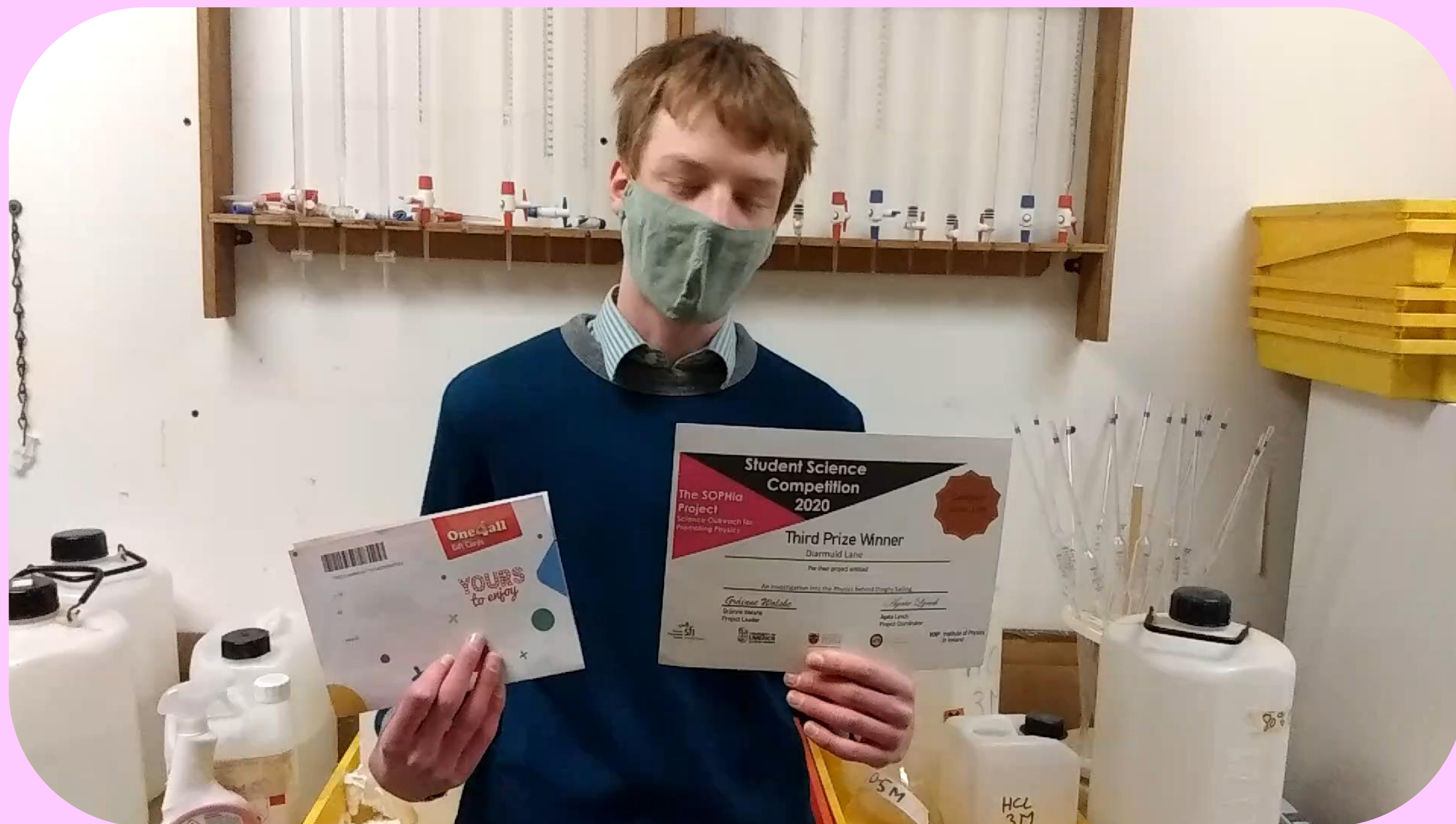
Caoilinn
Coláiste Íde



Physics Behind Dinghy Sailing

3rd
Individual Winner

Diarmuid
Coláiste Choilm



Physics of Alarm Clocks

2nd

Individual Winner

Rayaa

Christ King, Cork



Drones

1st

Individual Winner

Peri-Elkie

Christ King, Cork



JUNIOR CERT - Individual Winners

1st place

Peri-Elkie Tiendioh

Christ King Secondary
School, Milltown

2nd place

Rayaa Ponnle Onog

Christ King Secondary
School, Milltown

3rd place

Diarmuid Lane

Coláiste Choilm

4th place

Caoilin Ní Laoire

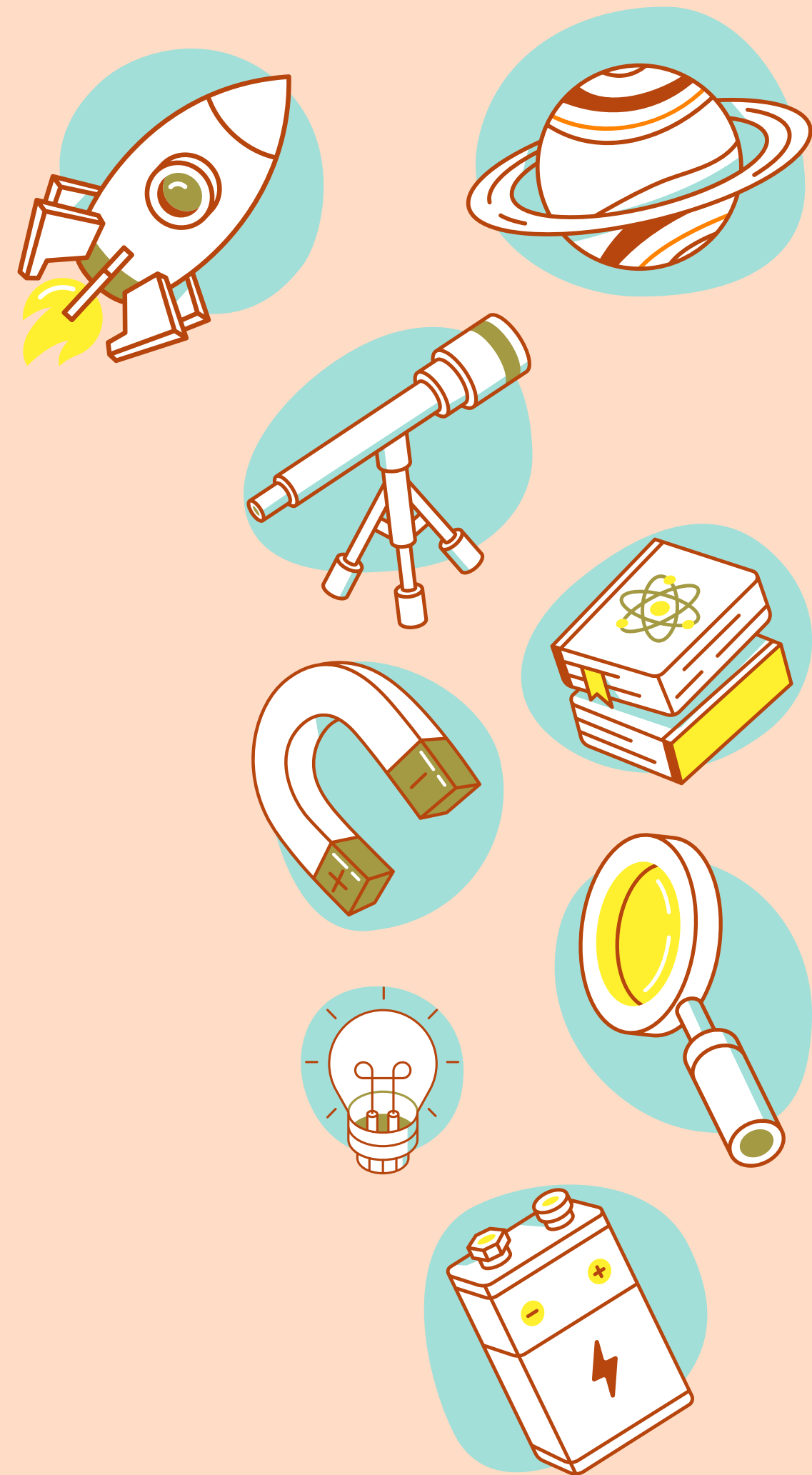
Coláiste Íde, Kerry

MARIA QUINN



SOPHIA PHYSICS POSTER COMPETITION

Transition Year
Special Prizes



Women In Physics

Chloe, Lauren, Celia,
Bríd-Anne & Leanne



Women in Physics

Castle Island
Community College

Amazing Women Ignored

Casting a Light on Physics

Kevin

Presentation, Milltown



Women In Physics

Shauna, Bernadette,
Rachel, Emma & Abbie



Influencers for Change

Castle Island
Community College

Physics in Nature and the World Around Us

Sarah, Hector & Kerry



Creativity

Castle Island
Community College

TRANSITION YEAR - Special Prizes

Women in Physics

Chloe Barrett, Lauren O'Sullivan,
Bríd-Anne Crowley, Danielle
Flynn & Celia McMahon

Castle Island Community
College, Kerry

Casting a Light on Physics

Kevin O'Callaghan

Presentation Secondary
School, Milltown

Influencers for Change

Shauna Tangney, Abbie
Mahony, Rachel Murphy &
Bernadette O'Mahony

Castle Island Community
College, Kerry

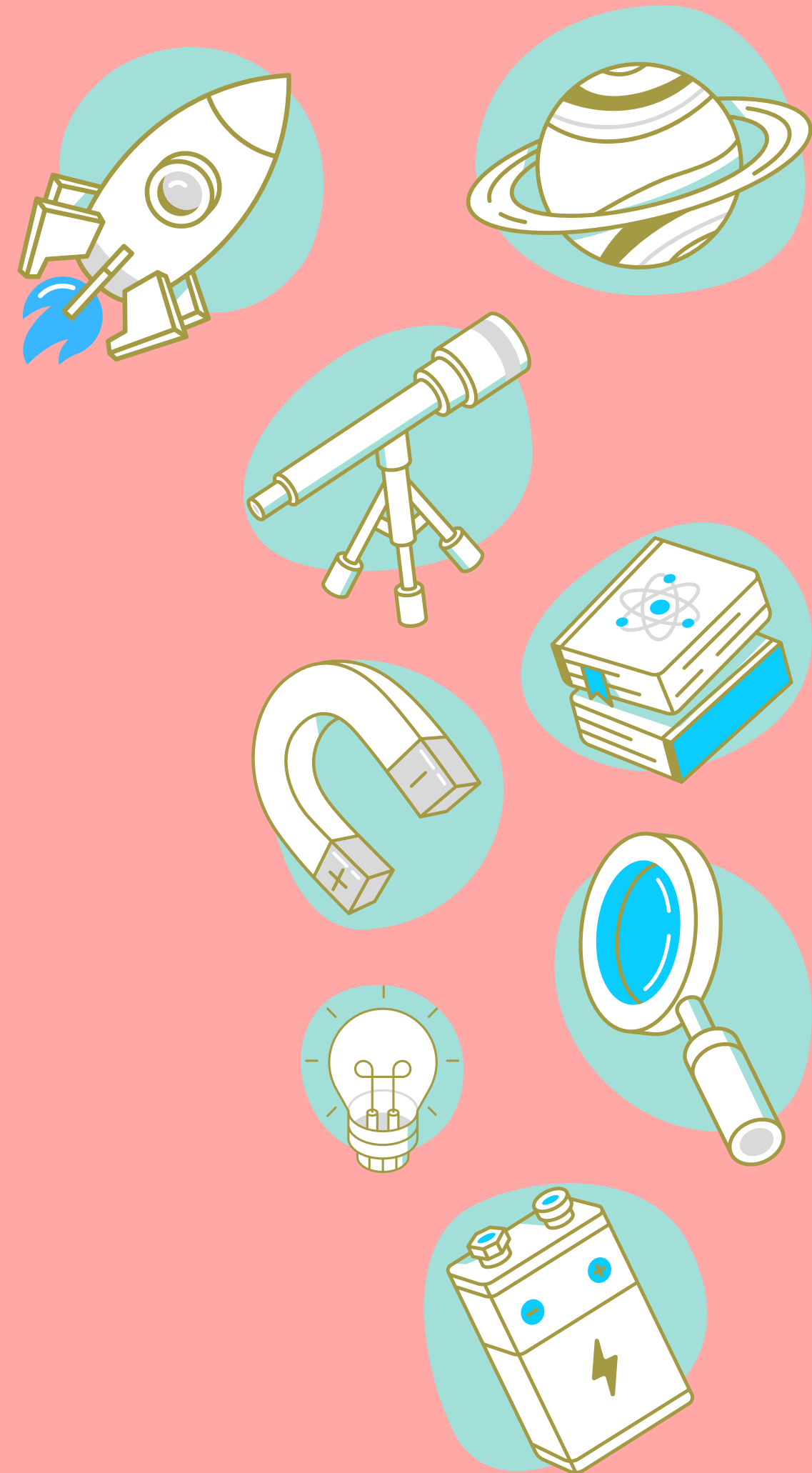
Creativity

Sarah O' Connor, Kerry
Hennessy, Hector Barranco
Canales & Freddie Galwey

Castle Island Community
College, Kerry

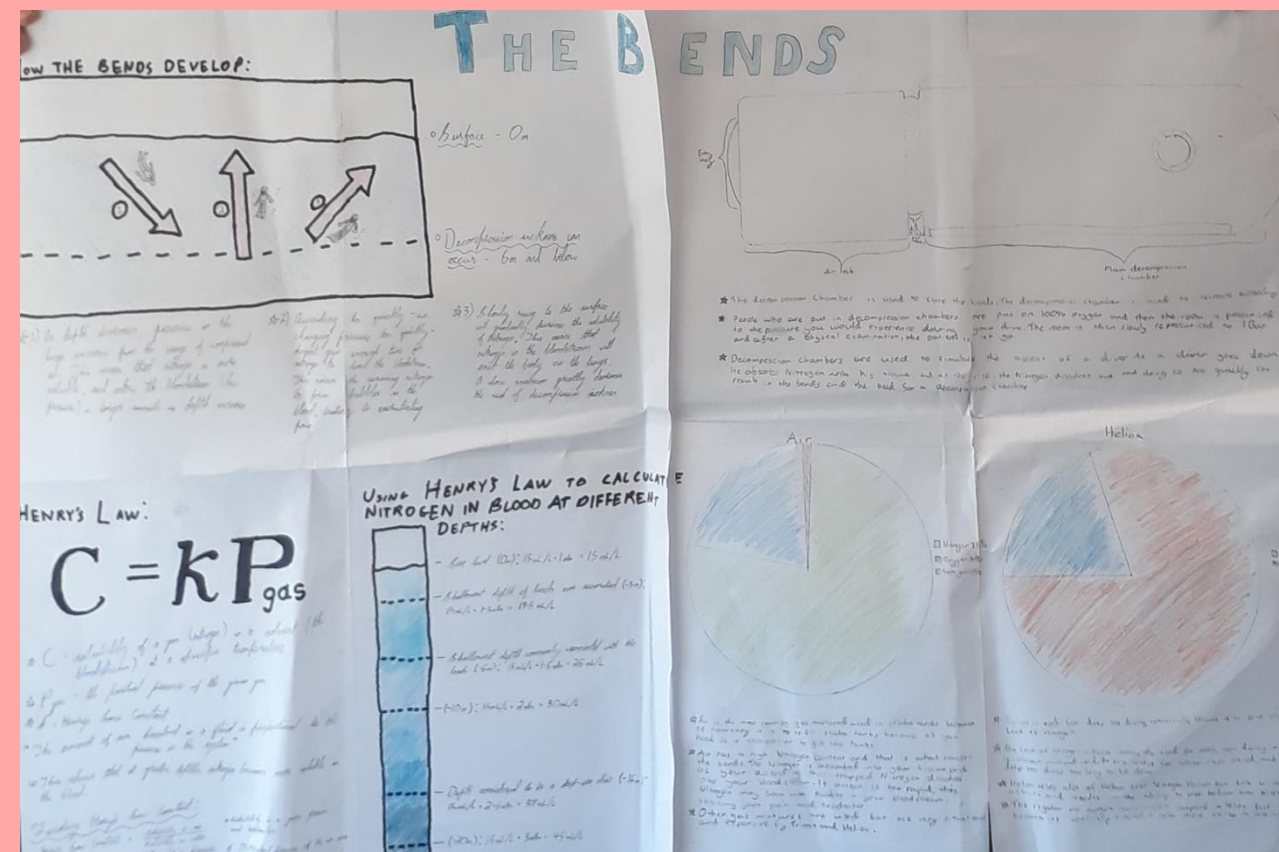
SOPHIA PHYSICS POSTER COMPETITION

Transition Year
Group Winners



The Bends

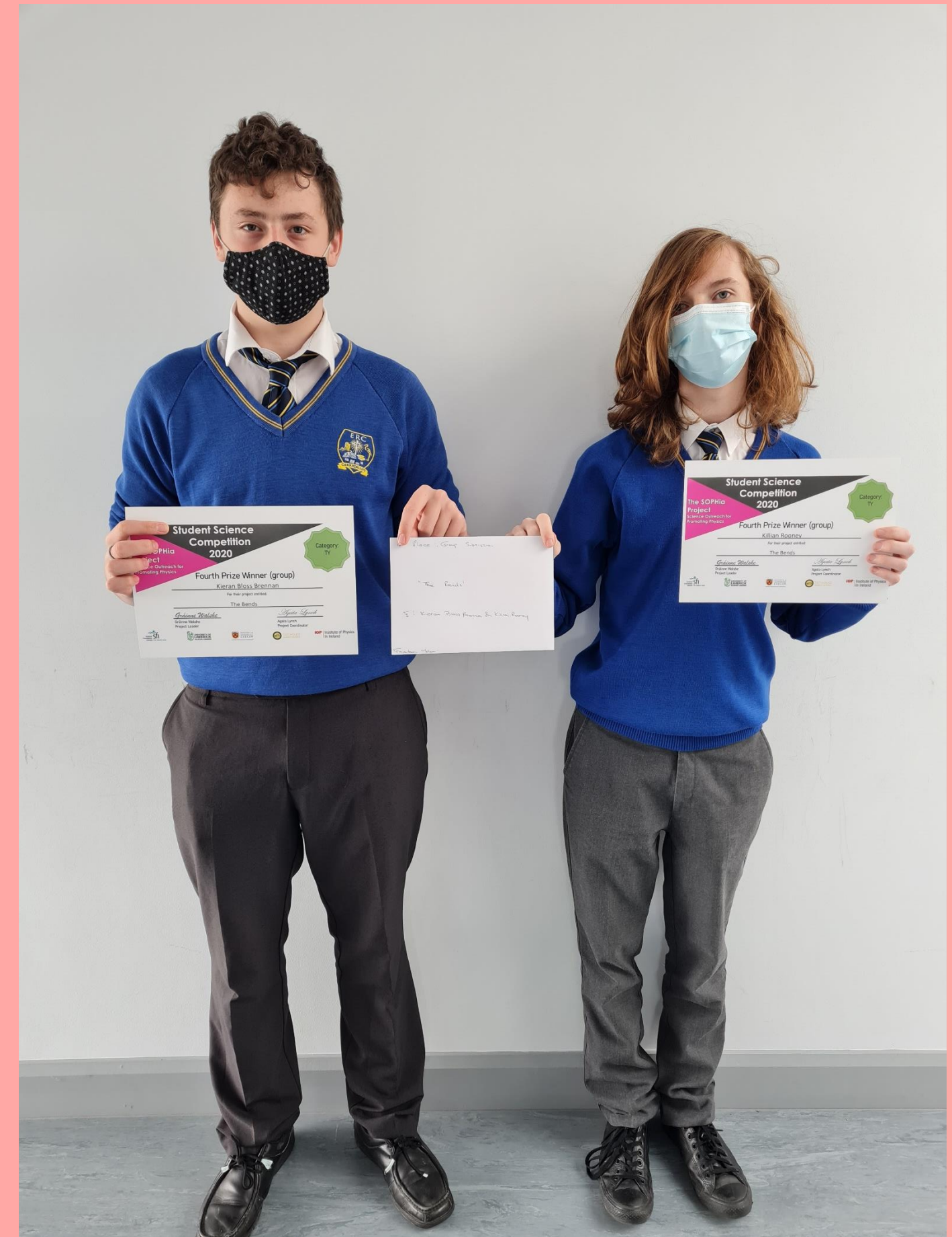
Kieran & Killian



4th

Group Winner

Edmund Rice College



Gravity in Space

Carla, Cianna,
Cara & Sophie

3rd

Group Winner

Presentation, Milltown



The Life & Findings of Jocelyn Bell Burnell

Elaine, Heidi,
Aoife & Amy

2nd

Group Winner

Presentation, Milltown



The Physics of Bees

Jessica, Mary & Ciara

1st
Group Winner

Castle Island
Community College



TRANSITION YEAR - Group Winners

1st place

Ciara O'Shea, Mary
Keane & Jessica Pokiri

Castleisland Community
College, Kerry

2nd place

Amy Brosnan, Aoife Poff,
Heidi Cuffe & Elaine McMahon

Presentation Secondary
School, Milltown

3rd place

Carla Evans, Cianna Foley,
Cara O'Brien &
Sophie O'Connor

Presentation Secondary
School, Milltown

4th place

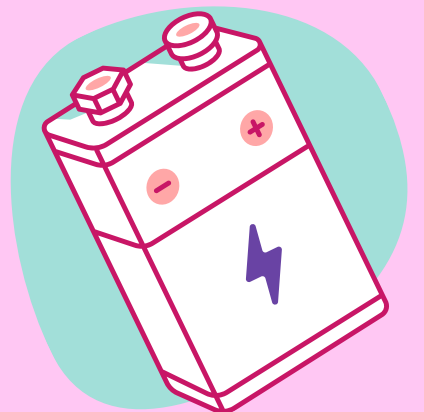
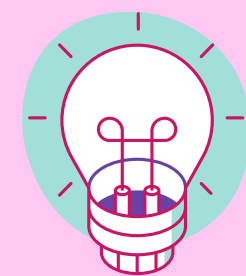
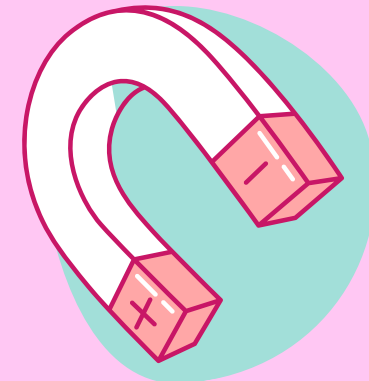
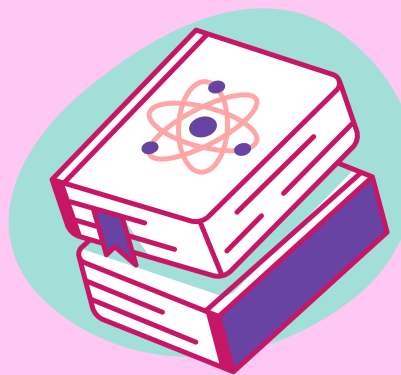
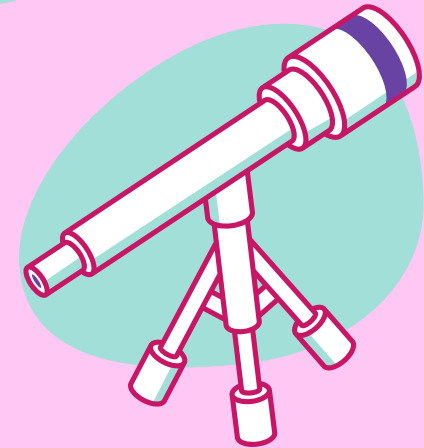
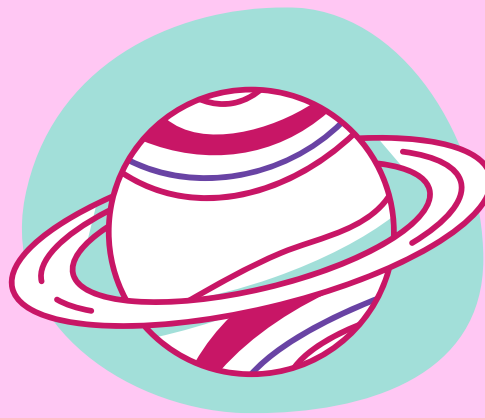
Kieran Bloss Brennan
& Killian Rooney

Edmund Rice College,
Carrigaline

SOPHIA PHYSICS POSTER COMPETITION

Transition Year

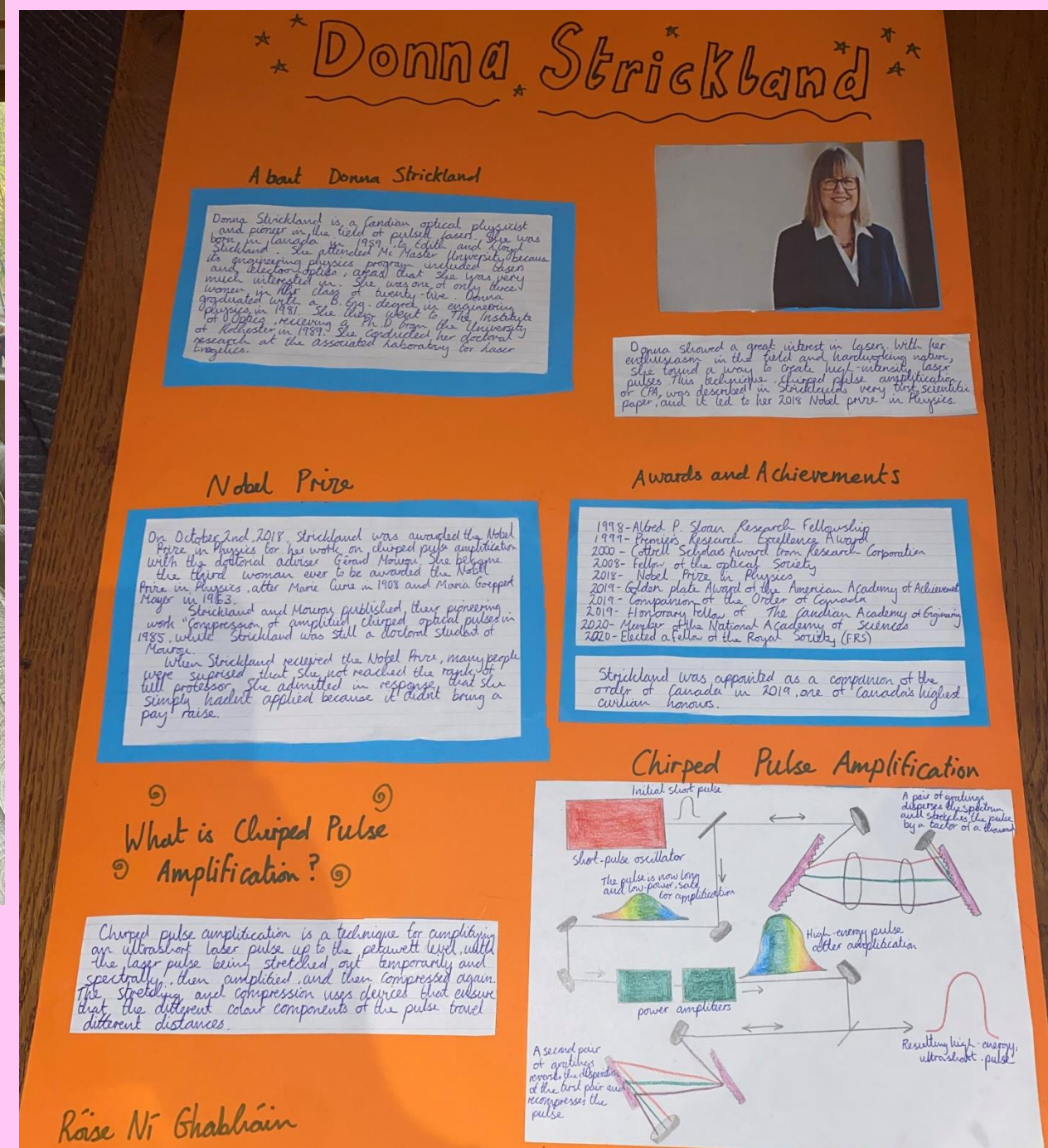
Individual Winners



Donna Strickland

4th
Individual Winner

Róise
Coláiste Naomh Feichín



Sophie Germain

3rd
Individual Winner

Elizabeth
Castle Island CC



Nature Did It First: Biomimicry & Physics

2nd
Individual Winner

Hannah
Borrisokane CC



Animals & Electricity

1st
Individual Winner

Hannah
Coláiste Muire, Ennis



JUNIOR CERT - Individual Winners

1st place

Hannah Clune

Coláiste Muire, Ennis

2nd place

Hannah Deasy

Borrisokane Community
College

3rd place

Elizabeth Morschell

Castle Island Community
College, Kerry

4th place

Róise Ní Ghabháin

Coláiste Naomh Feichín,
Cornamona

SWIMMING!

Drag!

Pressure!

Forces!

Swimming is a sport that involves moving through water. It is a great way to stay fit and healthy. There are many different strokes to learn, and each one has its own set of rules and techniques. It is important to practice regularly to improve your skills and endurance.

How Physics works in the world

Physics is the study of matter and energy. It explains how things work in the world around us. From the smallest particles to the largest galaxies, physics is everywhere. It helps us understand the universe and the forces that govern it.

The Physics of Cricket

Aerodynamics, Acceleration & Momentum!

Cricket is a sport that involves a lot of physics. The ball's trajectory is determined by aerodynamics, and the player's acceleration and momentum are crucial for a good shot. Understanding the physics of cricket can help players improve their performance.

MAGNETS IN WORLD AROUND

Magnets are found everywhere in the world. They are used in many different ways, from simple household items to complex scientific equipment. Understanding the properties of magnets can help us use them more effectively.

Edith Stoney

Edith Stoney was an Irish physicist and mathematician. She was one of the first women to study physics in Ireland. She made significant contributions to the field of electricity and magnetism. Her work was ahead of its time and has inspired many other scientists.

Marie Curie

Marie Curie was a Polish physicist and chemist. She was the first woman to win a Nobel Prize. She discovered the elements polonium and radium. Her work was groundbreaking and has had a lasting impact on the field of physics.

Woolen Mills

Woolen Mills are factories that produce woolen goods. They are an important part of the textile industry. The process of making woolen goods involves spinning and weaving wool into fabric. Woolen mills have been around for centuries and continue to be an important part of many economies.

Dr. Sally Ride - American physicist and astronaut

Dr. Sally Ride was an American physicist and astronaut. She was the first American woman to travel into space. She was a member of the first all-female mission, STS-7. Her work in space science was groundbreaking and has inspired many other women to pursue careers in science.

Edith Stoney

Edith Stoney was an Irish physicist and mathematician. She was one of the first women to study physics in Ireland. She made significant contributions to the field of electricity and magnetism. Her work was ahead of its time and has inspired many other scientists.

The Rainbow

The rainbow is a natural phenomenon that is caused by the refraction of light. It is a beautiful sight that is often seen after a rainstorm. The colors of the rainbow are caused by the different wavelengths of light being refracted at different angles.

Marie Curie

Marie Curie was a Polish physicist and chemist. She was the first woman to win a Nobel Prize. She discovered the elements polonium and radium. Her work was groundbreaking and has had a lasting impact on the field of physics.

Newton's physics

Newton's physics is a branch of physics that deals with the motion of objects. It is based on Newton's three laws of motion. Newton's physics has been used to explain a wide range of phenomena, from the motion of planets to the motion of objects on Earth.

Sheila Tinney

Sheila Tinney was an Irish mathematical physicist. She was one of the first women to study physics in Ireland. She made significant contributions to the field of mathematical physics. Her work was ahead of its time and has inspired many other scientists.

HOW DO AEROPLANES FLY?

Aeroplanes fly because of the forces of lift, thrust, drag, and weight. Lift is the force that keeps the plane in the air. Thrust is the force that moves the plane forward. Drag is the force that opposes the plane's motion. Weight is the force that pulls the plane down.

THE PHYSICS of A CAR

The physics of a car involves many different concepts, including aerodynamics, mechanics, and thermodynamics. Understanding the physics of a car can help us design better vehicles and improve their performance.

Solar Eclipses

A solar eclipse occurs when the Moon passes between the Earth and the Sun, blocking the Sun's light. This is a rare event that is visible from a narrow strip of land on Earth. Solar eclipses have been observed for centuries and have inspired many different myths and legends.

Black Holes

Black holes are regions of space where the gravitational pull is so strong that nothing can escape. They are formed by the collapse of massive stars. Black holes are one of the most mysterious and fascinating objects in the universe.

THE PHYSICS OF A SMARTPHONE

The physics of a smartphone involves many different concepts, including electronics, mechanics, and thermodynamics. Understanding the physics of a smartphone can help us design better devices and improve their performance.

THE PHYSICS OF HURLING

Hurling is a sport that involves a lot of physics. The ball's trajectory is determined by aerodynamics, and the player's acceleration and momentum are crucial for a good shot. Understanding the physics of hurling can help players improve their performance.

Mari Curie

Mari Curie was a Polish physicist and chemist. She was the first woman to win a Nobel Prize. She discovered the elements polonium and radium. Her work was groundbreaking and has had a lasting impact on the field of physics.

MAGNETISM IN THE WORLD AROUND US

Magnetism is a force that is found everywhere in the world. It is used in many different ways, from simple household items to complex scientific equipment. Understanding the properties of magnets can help us use them more effectively.

Wheels

Wheels are a simple but effective way to move things. They have been used for centuries and continue to be an important part of many different machines and vehicles. Understanding the physics of wheels can help us design better wheels and improve their performance.

The flick-flack spider

The flick-flack spider is a unique species of spider that is found in the desert. It is known for its ability to flick its legs and create a sound that is used to attract prey. This is a fascinating example of the diversity of life on Earth.

THE PHYSICS OF HURLING

Hurling is a sport that involves a lot of physics. The ball's trajectory is determined by aerodynamics, and the player's acceleration and momentum are crucial for a good shot. Understanding the physics of hurling can help players improve their performance.

THE PHYSICS BEHIND RUGBY

Rugby is a sport that involves a lot of physics. The ball's trajectory is determined by aerodynamics, and the player's acceleration and momentum are crucial for a good shot. Understanding the physics of rugby can help players improve their performance.

ARDNA CRUSA

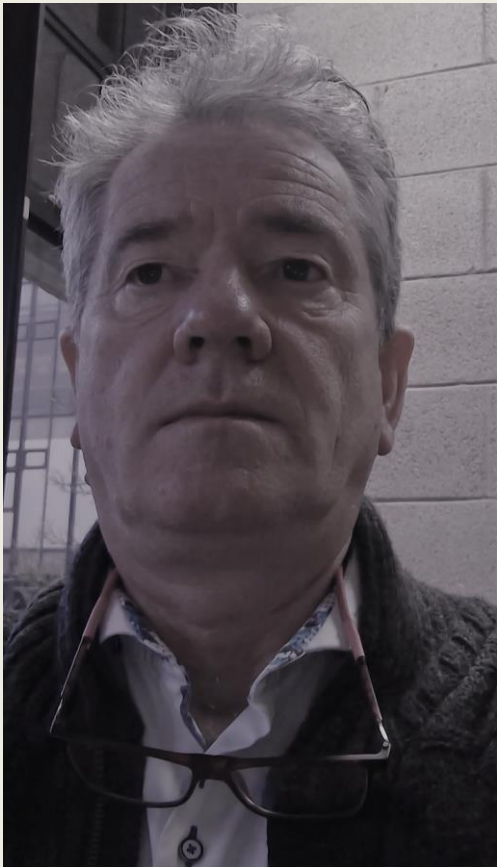
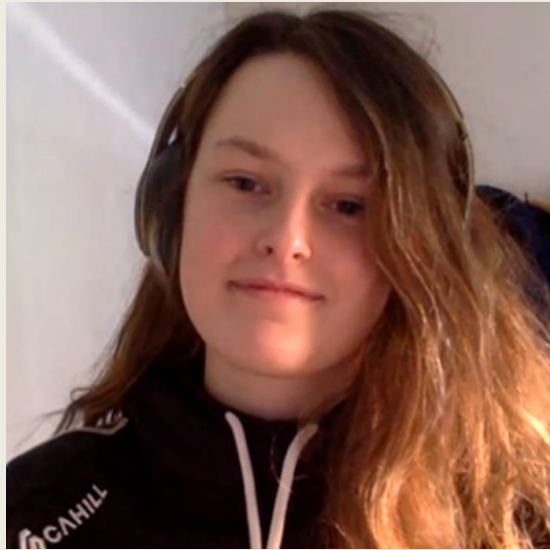
Ardnacrusa is a small village in Ireland. It is known for its beautiful scenery and its rich history. The village has many interesting landmarks and attractions that are worth visiting.

Physics in Douglas Playgroup

Physics is a subject that is taught in Douglas Playgroup. The children learn about the basic principles of physics and how they apply to the world around them. This helps them to develop a better understanding of the universe and the forces that govern it.

Wheels

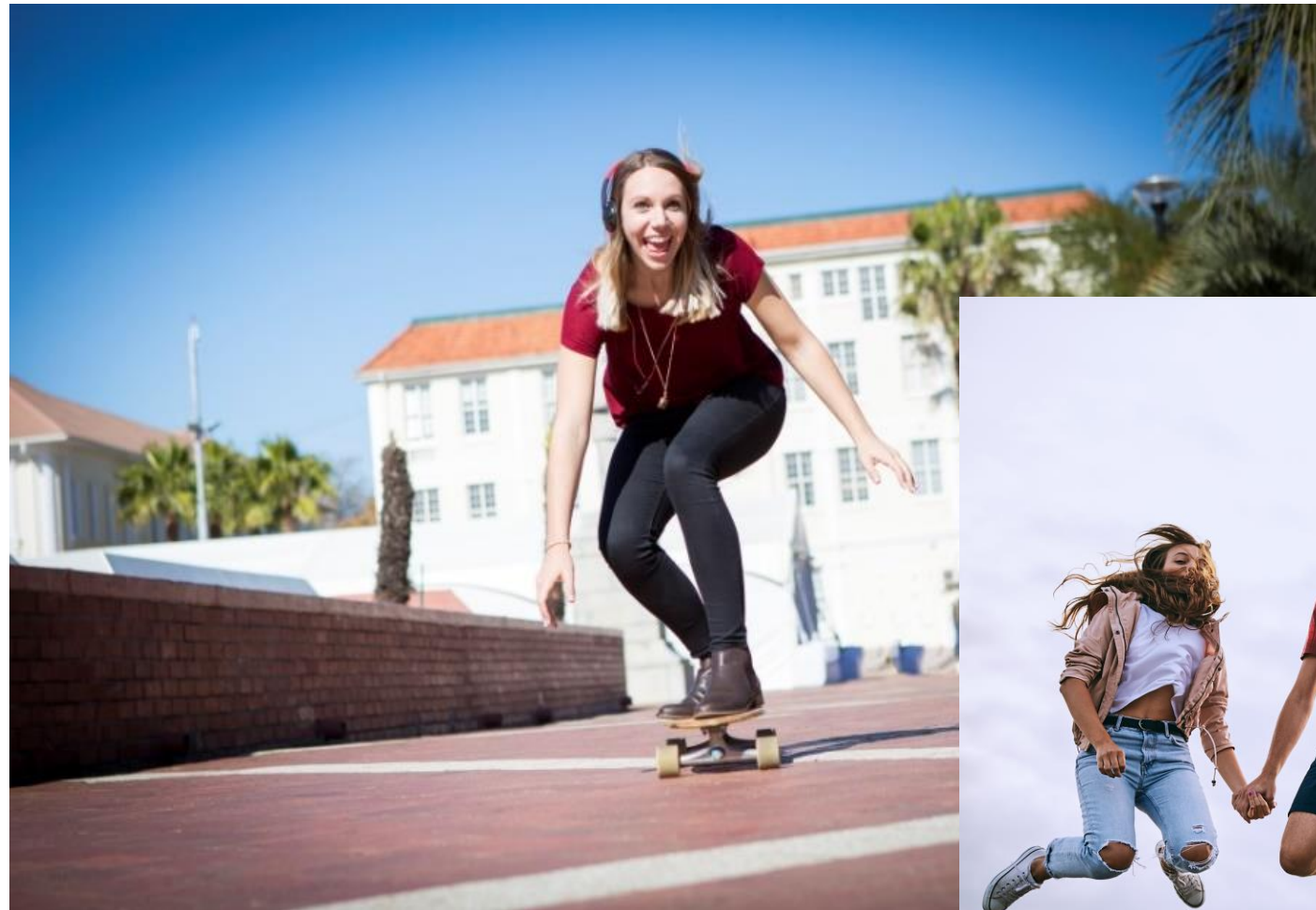
Wheels are a simple but effective way to move things. They have been used for centuries and continue to be an important part of many different machines and vehicles. Understanding the physics of wheels can help us design better wheels and improve their performance.



SOPHIA TEAM MEMBERS (2021)

Gráinne Walshe
Vincent Casey
Nancy Serrano
Yvonne Kavanagh
Robert Lynch
Maria Quinn
Elora McFall
Agata Lynch
Merrilyn Goos
Zohreh Eshghinmanesh
Kelly Fitzgerald
Stephen Comiskey

SOPHia for Science!



-END-