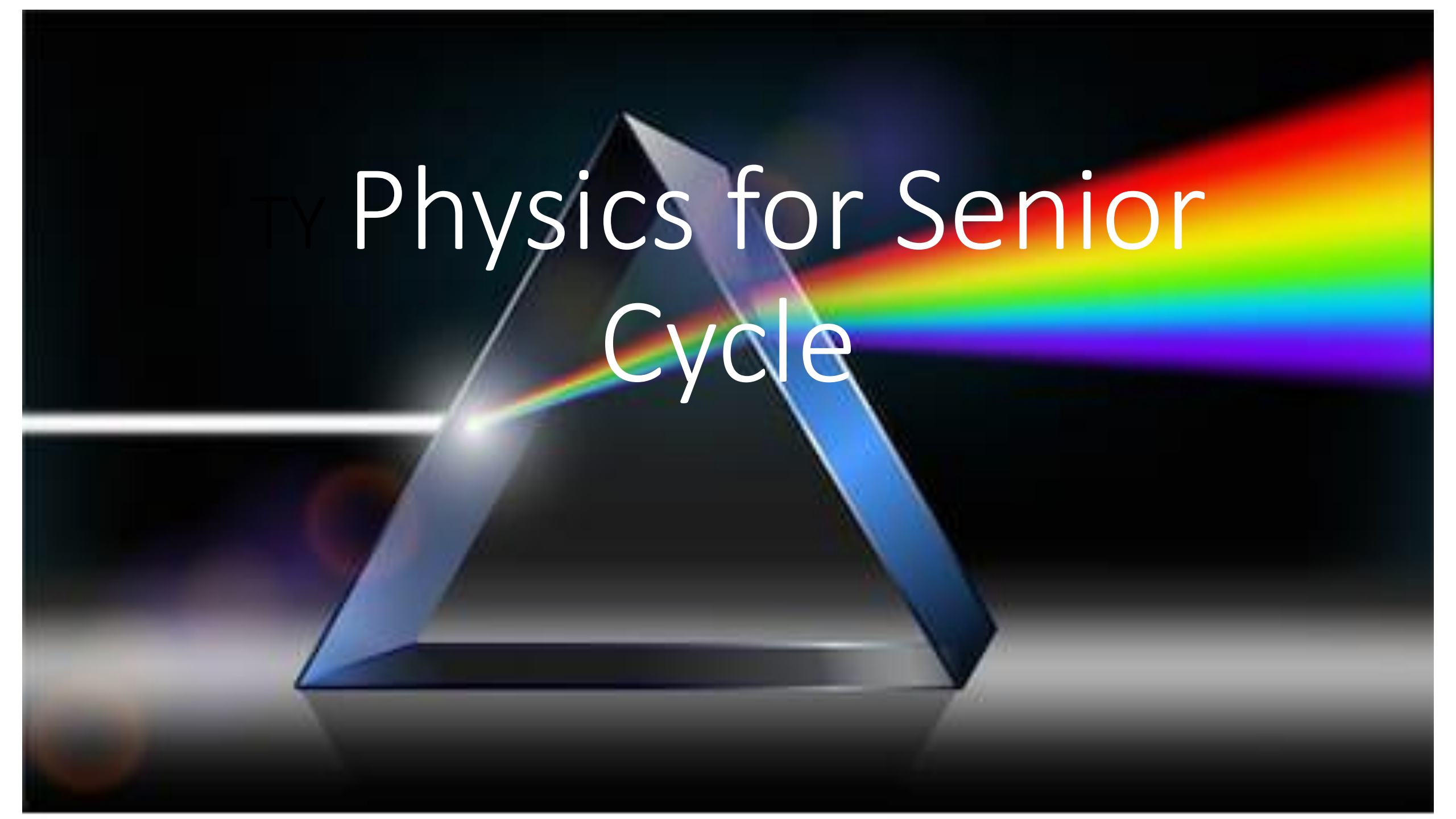


TY Physics for Senior Cycle



Myths about Physics at leaving cert!

- **You need to be doing Higher level maths! Not true!**
 - Those who are good at Ordinary level maths would be well able for Physics, but an interest in problem solving is helpful!
- **It's a boy's subject! Definitely not true!**
 - It's a course for creative, problem solvers who love practical work.
- **Really hard to get high point in! Not true!**
 - Shorter course than some of the Sciences, tons of practical work, less theory based, small class sizes.



Who picks Physics?

- Logical, creative thinkers.
- Students who wonder why and ask how.
- Students who want a small class size and lots of one-to-one help.
- Students who enjoy solving mathematical equations and graphing.
- Students who are very hands on and love practical work.
- Students who are interested in careers such as Electrician, Optician, Doctor, Dentist, Engineer (so many types!), Computer Technician, Astrophysicist, Actuarial studies, Computer Programmer, Photographer, Stage Lighting, Medical Scientist, Radiographers, environmental scientists.....

Project work

- Leaving Certificate Physics curriculum has changed to include an Additional Assessment Component (AAC) worth 40% of students final grade.
- This is a project-based assessment that focuses on practical investigations and research.
- The brief is issued in 5th Year and students use submit an investigative project in 6th year.
- It is externally evaluated by the State Examinations Commission (SEC).
- Amazing opportunity to bag up to 40% of your grade before the final exam!

What Maths skills do I need?



- While there is an element of maths in the physics course, higher level maths is not a requirement to do physics.

Can you?

- Substitute values into an Algebraic expression?
- Rearrange the subject of a formula?
- Convert one unit to another?
- Read graphs and find their slope?

THAT'S ALL THERE IS TO IT!

Topics covered at Leaving Cert



Light, Reflection, Refraction, Lenses



Mechanics: Displacement, velocity, acceleration, force, mass, momentum, pressure, gravity, work, energy and power.



Heat: Temperature, Thermometers, Heat and Heat transfer



Waves & wave motion, vibration and Sound



Static Electricity, Current, Voltage, Resistance, Capacitance



Magnets and Magnetic Fields, Electromagnetic Induction



Particle Physics, Electrons, Atoms, Radioactivity, Fusion & Fission



What do we do in TY Physics?

- Make simple pinhole cameras out of ice-cream tubs.
- Throw eggs out of SL2 to investigate air resistance and gravity.
- Squash and stretch marshmallows to confirm Boyle's law.
- Crash model cars together to investigate collisions.
- Create bolts of lightening with the Van de Graaf generator.
- Build and launch rockets higher than the Convent roof.
- Take trips to W5 Belfast, UCD and anywhere else that will have us to learn more about the breadth and scope of Physics!!

Careers in Physics, just a few examples.....

- Astronomer
- Engineer: Civil, Mechanical, Electronic, Material, Biomedical.....
- IT
- Finance
- Forensics
- Geophysicist
- Meteorologist
- Medical physicist
- Lecturer or teacher
- Optician
- Environmental physics.....Amongst the best paid jobs in Ireland!!