Y9A Physics — MYP Sciences

Course Expectations • 2026–2027

Teacher	Mr. Alex Rawson • a.rawson@stleonards-fife.org
Room	PH1
We meet	Week A • Thursday • Period 3 (11:15–12:10) Week B • Monday • Period 1 (08:55–09:50) Week B • Thursday • Period 6 (15:05–15:55)
Course page	rawsonvault.com/myp/physics

1 What this course is

Year 9 physics is one strand of MYP Sciences. Biology, chemistry and physics run alongside each other through the year. I teach the physics strand.

This is the last year of the MYP, and the subject gets more serious. We cover waves, then electricity, then mechanics: motion graphs, Newton's laws, work and energy. Over this year, you will meet most of the ideas that take GCSE physics two years to cover. This is also the year you find out whether physics is for you. Take it seriously — this is your chance to decide.

2 What we cover

	Unit	Some of what is in it	From
1	Oscillations and Waves	Wave types and properties, sound, reflection, refraction, diffraction	24 Aug
2	Electricity and Energy	Current, voltage, resistance, series and parallel circuits, power, safety	5 Oct
3	Mechanics	Newton's laws, work and energy, momentum, motion graphs	11 Jan
4	Applications of Physics	Engineering and technology, renewable systems, forces in design	1 Mar

Each unit is framed by a statement of inquiry and a global context, given to you at the start of the unit. Timing may shift a little — any change will be announced clearly in class, and I will also publish it on the course page.

3 What you need

Every lesson

- Ring Binder - keep your jotter and worksheets neatly organized
- Calculator — you will use it properly this year
- Writing Utensils - Pencil, pen, ruler
- Your planner

When we need them

- Lab book — provided, and it stays in the lab
- Graph paper — there is a lot of graph work in mechanics

Keep it organised in a ring binder with dividers

4 How you are assessed

You are assessed against the four MYP Sciences criteria, each marked out of 8:

	Criterion	What it looks like here
A	Knowing and understanding	End-of-unit assessments; applying physics to situations you have not seen before
B	Inquiring and designing	Designing your own investigation — question, hypothesis, variables, method
C	Processing and evaluating	Data, graphs, valid conclusions, and an honest evaluation of the method
D	Reflecting on the impacts of science	Research and writing on how the physics meets the real world

Each criterion is assessed at least twice across the year, and your science report draws on all three strands together. Your grade comes from your **most recent, most consistent** work against each criterion, rather than an average of all marks across the year.

Every assessed task tells you which criterion is being marked, and what each level looks like before you start.

5 Homework

Expect one homework piece a week, around 30–40 minutes long. I will announce it in class and post it on Google classroom, and it will usually be due the following lesson.

Homework is practice, not performance. It is marked for effort and completion, not accuracy. I need to see where your thinking went wrong, so **show your working**. This year has a lot of calculation in it. If you only write the answer, I cannot see where you got stuck, and I cannot help.

6 Practical work

We are in the lab most weeks — circuits, ripple tanks, trolleys and light gates.

Safety. Do not touch apparatus until I have said so. Follow the sheet and follow what I say aloud. Put your bag under the bench. Push your stool in. Put your goggles on when I say goggles on. Tell me straight away if something breaks. Reporting it is not a problem. Hiding it is a problem. Electricity work has its own rules, and I will give them before we start.

Recording. Write data into your notebooks, in pencil, while you are doing the experiment. If your partner is recording the data for your team, it is your responsibility to collect the data afterwards. If you make a mistake, cross it out gently out, rather than erasing it. By keeping the record of previous attempts, it shows your thought process and improvements - that is what a real scientific record looks like.

A full write-up contains: research question • variables • method • data table • graph • analysis • conclusion • evaluation of error.

Missed a practical? Come and find me the day you are back and we will arrange a catch-up. If you know in advance you will be away, tell me before and we will do it before.

7 Deadlines and late work

Deadlines are given in class and posted on the course page. Work handed in late is marked and returned, but recorded as late; more than a week late is recorded as not submitted.

If something is going wrong — illness, deadlines stacking up, anything at home — **come and tell me before the deadline.** An extension asked for in advance is nearly always fine. Asking afterwards is different — by then, I usually cannot say yes.

8 Absence

Being away does not remove the work. It only delays it. **It is your job to find out what you missed** — check the course page first, then ask me.

- **Lessons.** Notes and resources are on the course page. Catch up before the next lesson.
- **Assessments.** Take the assessment within three school days of coming back. Come and book a time yourself — this is your responsibility, and I will not remind you.
- **Extended absence.** See me on your first day back and we will agree a realistic plan and a set of dates.

9 Phones, laptops, and AI

Phones go straight in your locker when you arrive. They stay there for the whole school day, in every lesson.

Laptops are open when the task needs them and closed when it does not. I will say which.

AI tools are genuinely useful and you should learn to use them well. In this course:

- **Fine:** asking it to explain something you are stuck on, generating extra practice questions, checking your own reasoning after you have done the work yourself.
- **Not fine:** getting it to produce an answer, a paragraph, a method or code that you then hand in as your thinking.
- **Always:** write one line at the end saying what you used and what for. Declaring it is never penalised. Not declaring it is a problem.

The reason is simple. The assessment has no AI in it. The moment you actually need to understand something has no AI in it either. If an AI does the work for you, you lose the time you needed to get better at physics.

10 Academic honesty

You may work together — you learn faster when you do. But **the writing must be yours, done on your own.**

- Write down who you worked with, on the work itself.
- Cite anything you used — book, website, video, diagram, dataset. Putting it in your own words still needs a citation: you are borrowing the idea even when you change the words.
- This matters most for lab reports, where the data is yours and the conclusions should be too.

11 In the classroom

- Arrive on time and ready to start.
- Ask the question. Someone else has it too, and I would rather stop the lesson than let you fall behind.
- Wrong answers said out loud are how the lesson works. Nobody is laughed at in here.

- Leave the lab ready for the next class.

12 How to do well in this course

Turn up and take part. Do the practice. You cannot learn physics just by reading about it, and in Year 9 that becomes especially true. Ask for help as soon as you are lost. Do not wait until the week before the assessment. Keep your notebook and lab book neat and complete, so you can revise from them later.

If you are thinking about physics at GCSE, this is the year to find out. Ask me what it is like, and I will tell you honestly.