



GCSE Astronomy

A briefing for parents/carers and students

October 2021

Hello and welcome to this presentation

Jeremy Thomas

GCSE Astronomy Teacher since 2000

Now teaching GCSE Astronomy in person and remotely to students from four local schools

Previous results:

2017 A* B (Adult candidates)

2018 A* A B B C C (Larkmead and Abingdon Schools)

2021 9 9 8 8 8 (John Mason and Abingdon Schools)



Pearson Edexcel GCSE in Astronomy 1AS0

- The full specification can be found online here:
 - <https://qualifications.pearson.com/en/qualifications/edexcel-gcses/astronomy-2017.html>
- And the best textbook for the course is this one:
 - <https://mickledoreastronomy.co.uk/product/gcse-9-1-astronomy-guide-pupils-teachers-5th-edition/>
- I have written my own resources for teaching the course which are all freely available here:
 - <https://www.abingdonsciencepartnership.org/gcse-astronomy/>

A summary of the normal course content

Paper 1: Naked-eye Astronomy (*Paper code: 1AS0/01)

Written examination: 1 hour and 45 minutes

50% of the qualification

100 marks

Content overview

- Topic 1 – Planet Earth
- Topic 2 – The lunar disc
- Topic 3 – The Earth-Moon-Sun system
- Topic 4 – Time and the Earth-Moon-Sun cycles
- Topic 5 – Solar System observation
- Topic 6 – Celestial observation
- Topic 7 – Early models of the Solar System
- Topic 8 – Planetary motion and gravity

Assessment overview

A mixture of different question styles, including multiple-choice questions, short-answer questions, calculations, graphical and extended-open-response questions.

Paper 2: Telescopic Astronomy (Paper code: 1AS0/02)

Written examination: 1 hour and 45 minutes

50% of the qualification

100 marks

Content overview

- Topic 9 – Exploring the Moon
- Topic 10 – Solar astronomy
- Topic 11 – Exploring the Solar System
- Topic 12 – Formation of planetary systems
- Topic 13 – Exploring starlight
- Topic 14 – Stellar evolution
- Topic 15 – Our place in the Galaxy
- Topic 16 – Cosmology

Assessment overview

A mixture of different question styles, including multiple-choice questions, short-answer questions, calculations, graphical and extended-open-response questions.

The required Observing Tasks

- These are not assessed but evidence must be available to show that they have been done
- Evidence of two tasks is required – an Unaided and an Aided task
- The exam centre must submit a signed declaration that all candidates have completed the two tasks
- A list of allowed tasks is shown on pages 45 and 46 of the specification
- I will brief students and provide resources to help them complete these but they must be done outside lessons in their own time
- If they are not completed then candidates cannot take the exams as that would compromise the exam centre's certification!

What will happen in 2022?

- Currently the situation regarding GCSE Astronomy is very similar to other subjects for the Summer 2022 exam series:
 - There will be a reduction in examined content
 - Details of the topics to be examined will be released in February 2022
 - Completion of the Observation Tasks is still required

How long does it take to complete the course?

- For GCSE's in science subjects, the recommended lesson time is two hours per week, but we only have one hour per week
- To complete the course in two years the students must therefore expect to do a significant amount of self study
- I have constructed two Learning Plans, one each for Paper 1 and Paper 2, to help with this by splitting the course content into self study items, may need teaching items and needs teaching items:

<https://www.abingdonsciencepartnership.org/gcse-astronomy/>

When is it best to take the exams?

- This depends on each student's circumstances but here are some possible scenarios based on examples from my previous candidates:
- 1. Start in Y9, study for two years, take exams with other GCSE's in Y11
- 2. Start in Y9, study for three years, take exams in Y12
- 3. Start in Y9, accelerated self study, take exams in Y10
- 4. Start in Y10, exams in Y11/12/(13)
- 5. Start in Y11, exams in Y12/(13)

Plans for assessment

- Current Ofqual guidance advises schools to collect assessment evidence from an early stage in case of a return to Teacher Assessed Grades (TAGs) in 2022 – although exams are still the preferred option
- My plan for the Oxford Spires Class of 2021-22 is therefore:
 - An online, multiple choice test in the last session of term on **Thursday 9 December**
 - A mock, Paper 1 topic exam lasting one hour under controlled conditions, in school in **January 2022** (date to be arranged)
 - Review the assessment guidance due in early Feb 2022
 - Plan for further multiple choice tests before the Feb half term and a mock Paper 2 before Easter once the guidance has been published
 - Further revision and past papers after Easter for any candidates entering for the summer 2022 exam series

What actions are needed next?

- The students need to decide if they wish to take the exam papers in summer 2022
- If the answer is yes, the Oxford Spire exams officer needs to be informed and entries made
- Only a few students have completed any Observing Tasks so far – I will brief them on how to do this again, but THEY must complete them in their own time and submit evidence to me using my Observing Task planning, analysis and evaluation worksheets
- For summer 2022 entry, two observing tasks **MUST** be completed by the end of April 2022 or the candidates will have to be withdrawn from the exams to avoid compromising the exam centre's certification
- I will fully brief the students and provide revision resources over the Christmas holiday for the mock exam paper in January

Any questions?

If you do have any more questions please do not hesitate to email them to me

jeremy.thomas@abingdon.org.uk

Or request a phone call or a Zoom meeting if you prefer

Thanks for your enthusiasm and support for this extra opportunity!

Jeremy