Head Teachers Network

2026

ACKNOWLEDGEMENT OF COUNTRY

Science Teachers' Association of NSW would like to acknowledge the Traditional Custodians of the various lands on which we work today and the Aboriginal and Torres Strait Islander people participating in this event.

I pay my respects to Elders past, present and emerging, and recognise and celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

2026 Sponsors

We're grateful for the support of our 2026 Head Teachers Network Sponsors:

- Powerhouse: https://powerhouse.com.au/
- Libertas Travel, School Tour Specialists: https://www.libertastravel.com.au/
- Matilda Education: https://www.matildaeducation.com.au/
- Cambridge University Press & Assessment: https://www.cambridge.org/au/education
- Stile Education: https://stileeducation.com/au/
- Anzuk Education: https://anzuk.education/au/

POWERHOUSE

LIBERTAS travel

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matilda education

CAMBRIDGE

Stile

About Us

STANSW is committed to advancing the profession of science education in New South Wales, with a focus on the professional learning, support, and advocacy of its teacher members. This year marks 75 years of STANSW – 75 Diamond years of teachers supporting teachers.

STANSW in 2026

Events

Meet the Markers (Virtual & Face to Face)
Primary Forum (Face to face)
STANSW Conference (Secondary)
Virtual Conference (K-12)

Networks

Head Teachers Network
Primary Teachers Network
Critical Thinking Network

Courses

Differentiation in Science
Early Careers Teachers
Literacy in Science

Channels

Linked In
Instagram
Facebook
STANSW e-newsletters subscribers
X

2026 PROFESSIONAL LEARNING & EVENTS FOR SCIENCE TEACHERS

Save the Dates

STA NSW

SCIENCE TEACHERS ASSOCIATION OF NEW SOUTH WALES

TERM 1

Week commencing 10 February
Network Meetings:

Scientific Critical Thinking
Head Teachers Network

11 - 19 March
Meet the Markers Exam Analysis:

Chemistry
Investigating Science
Science Extension
Physics
Biology
Earth and Environmental

20 March
Meet the Markers Extended

20 March
Primary Forum

TERM 2

Week commencing 27 April
Network Meetings:

Scientific Critical Thinking
Head Teachers Network
Primary Teachers Network

13 & 20 May
Integrating Data Science 1 with Stage 4 Focus Areas and Depth Studies

7 - 8 May
Differentiation in Science Course

12 - 13 June
STANSW 2026 Conference: The Future of Science Education

7 - 10 July
CONASTA 73 - Brisbane

TERM 3

Week commencing 27 July
Network Meetings:

Scientific Critical Thinking
Head Teacher Network
Primary Teachers Network

5 August
Science in the House

7 August
Early Career Teachers Course Commences

17 August - 29 October
2026 Virtual Forum

September
HSC Preparation Lectures

September
Young Scientist Competition Entries Closing

TERM 4

2 November
Early Career Teachers Course Concludes

November
Networks Event

November
Young Scientist Awards

75TH ANNIVERSARY 2026
THE SCIENCE TEACHERS ASSOCIATION OF NSW

15 - 23 August: 2026 National Science Week.
Seeds of Science: Nurturing knowledge for all.

bitly

View our events and resources at https://stansw.asn.au. Scan the QR code to visit the events page.

House Keeping

This course/event can be used to claim Professional Development hours.
Presentation files will be shared at the conclusion of the event.
Your feedback is important to us, please complete the event survey.

Disclaimer for Zoom Meetings:

- Please ensure your microphone is muted throughout the session
- Please use either the Raise Hand or the Chat Box for questions to presenters
- Please be courteous and respectful
- Please do not record the session. Recordings will be made available after the event.

NESA Accreditation

Completing HTN meeting 1 will contribute 1 –1.5 self-identified hour of professional development in the priority area of 6.3.2 from the Australian Professional Standards for Teachers towards maintaining Proficient Teacher Accreditation in NSW.

6.3.2 Contribute to collegial discussions and apply constructive feedback from colleagues to improve professional knowledge and practice.

NESA Accreditation

Add New Activity

Date of completion *
01/04/2025

Activity Name *
STANSW Head Teachers Network Meeting 1
39 chars(s). Max 120 characters.

Activity Type *
Professional learning communities

Select one or more relevant Standard(s)

- [ ] **Standard 1**
- [ ] **Standard 2**
- [ ] **Standard 3**
- [ ] **Standard 4**
- [ ] **Standard 5**
- [x] **Standard 6**
- [ ] **Standard 7**

Duration Hours *
1

Duration Minutes *
30

Provider
Science Teachers' Association of New :

Priority Area
Leadership to support learning outcomes of

Rating
4 - excellent

Head Teacher Network Committee

Jen Ming, Science Educator, Sydney Catholic Schools

Frank Milic, Teaching & Learning Coach, Sydney Catholic Schools

HTN 2026 Agenda – Term 1

1. **Programming for the New Stage 6 Syllabus** - new syllabus changes, what's different? (10 minutes – Frank)

2. **Data Science** - Unpack the findings and learnings from - (15 minutes – Bec)

3. **Data science data sets** – What are schools using for data sets? (Breakout room - 10 minutes)

4. **How/Where are schools embedding data science into 7-10?** (Full group discussion – 10 minutes)

Check-in: New Curriculum

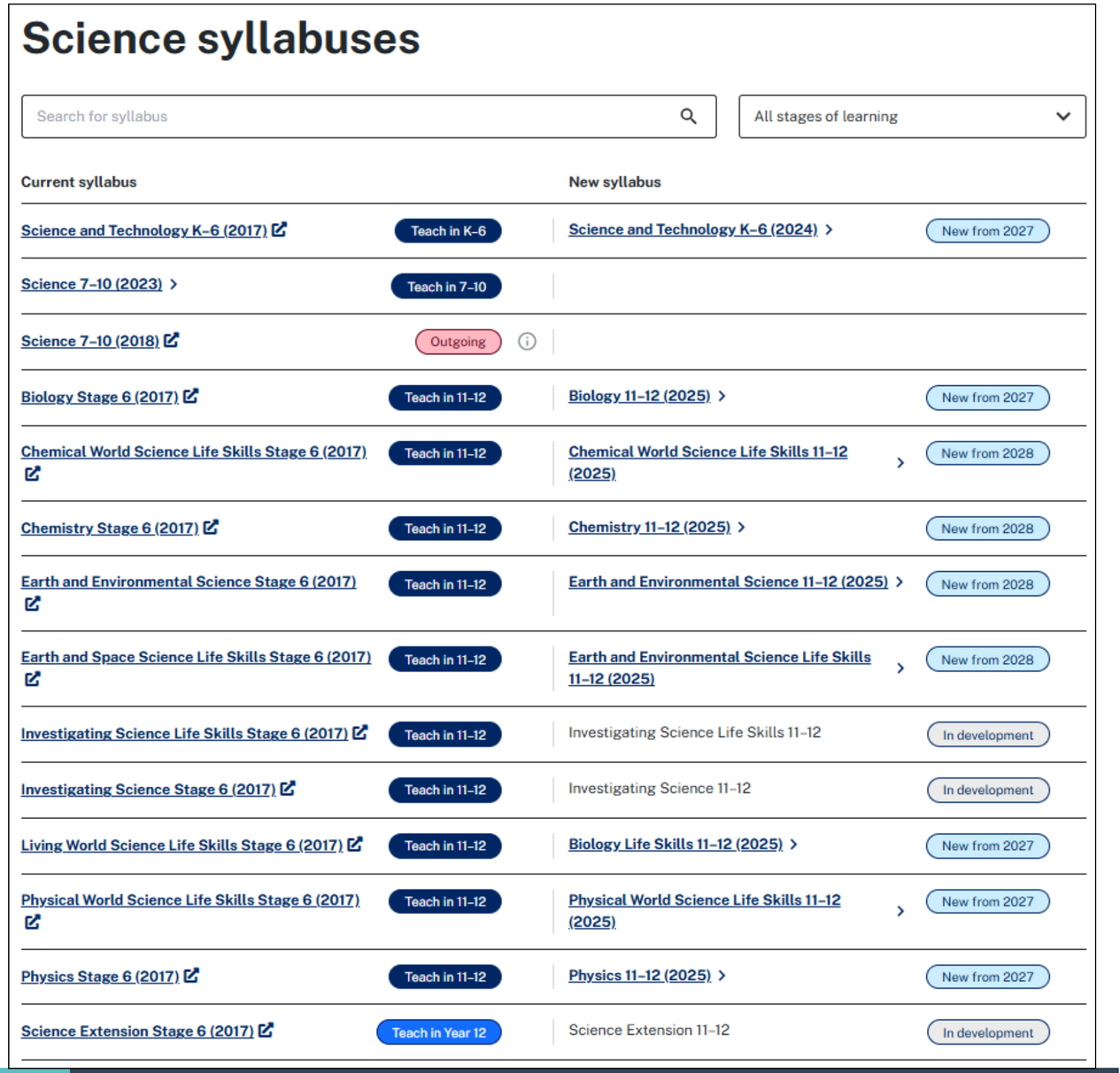
NSW GOVERNMENT

NSW Curriculum

NSW Education Standards Authority

NSW CURRICULUM REFORM UPDATE

https://curriculum.nsw.edu.au/learning-areas/science



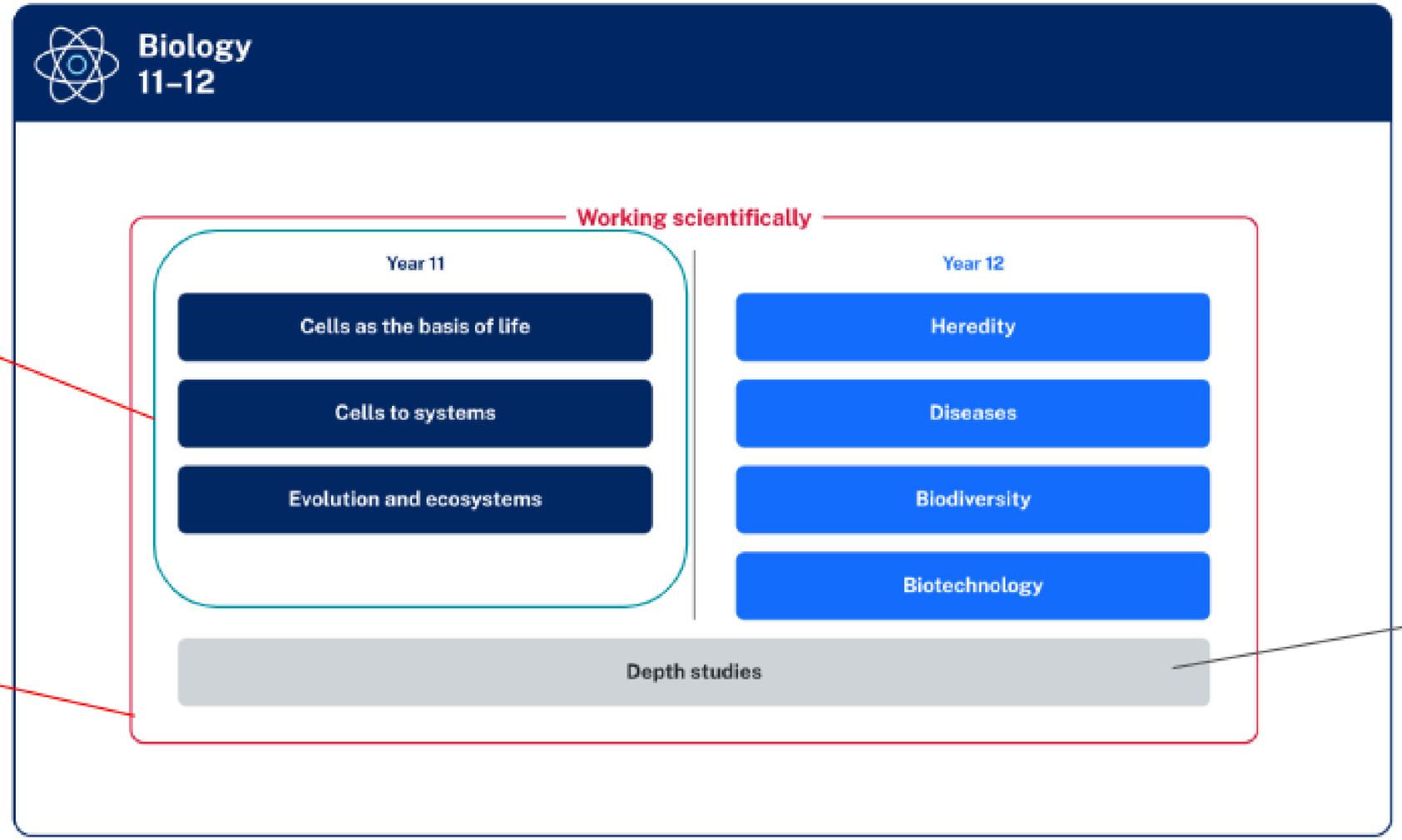
Science syllabuses

Search for syllabus

All stages of learning

Current syllabus		New syllabus	
Science and Technology K–6 (2017)	Teach in K–6	Science and Technology K–6 (2024)	New from 2027
Science 7–10 (2023)	Teach in 7–10		
Science 7–10 (2018)	Outgoing		
Biology Stage 6 (2017)	Teach in 11–12	Biology 11–12 (2025)	New from 2027
Chemical World Science Life Skills Stage 6 (2017)	Teach in 11–12	Chemical World Science Life Skills 11–12 (2025)	New from 2028
Chemistry Stage 6 (2017)	Teach in 11–12	Chemistry 11–12 (2025)	New from 2028
Earth and Environmental Science Stage 6 (2017)	Teach in 11–12	Earth and Environmental Science 11–12 (2025)	New from 2028
Earth and Space Science Life Skills Stage 6 (2017)	Teach in 11–12	Earth and Environmental Science Life Skills 11–12 (2025)	New from 2028
Investigating Science Life Skills Stage 6 (2017)	Teach in 11–12	Investigating Science Life Skills 11–12	In development
Investigating Science Stage 6 (2017)	Teach in 11–12	Investigating Science 11–12	In development
Living World Science Life Skills Stage 6 (2017)	Teach in 11–12	Biology Life Skills 11–12 (2025)	New from 2027
Physical World Science Life Skills Stage 6 (2017)	Teach in 11–12	Physical World Science Life Skills 11–12 (2025)	New from 2027
Physics Stage 6 (2017)	Teach in 11–12	Physics 11–12 (2025)	New from 2027
Science Extension Stage 6 (2017)	Teach in Year 12	Science Extension 11–12	In development

NEW 11-12 SCIENCE SYLLABUSES

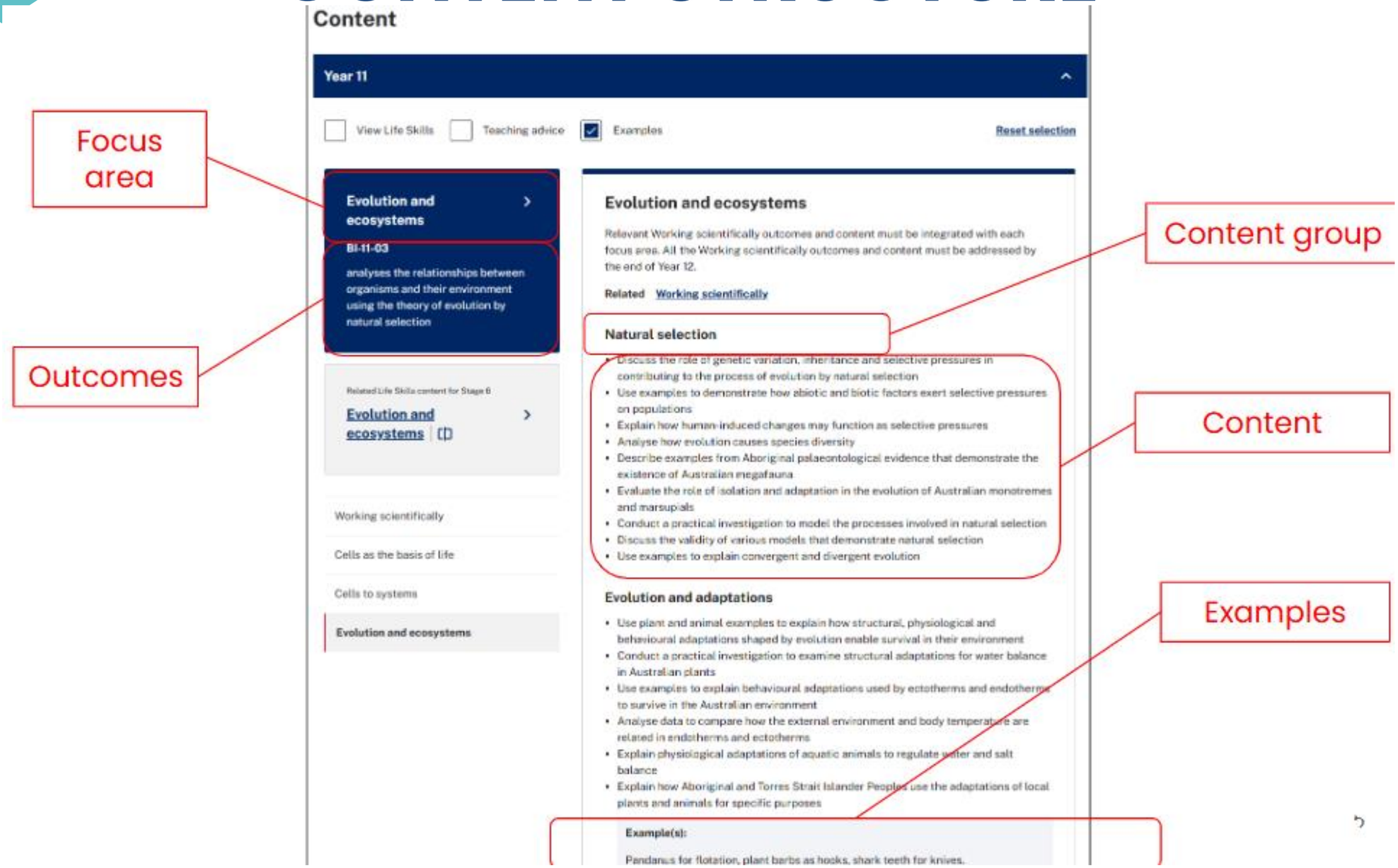


Focus areas (not modules)

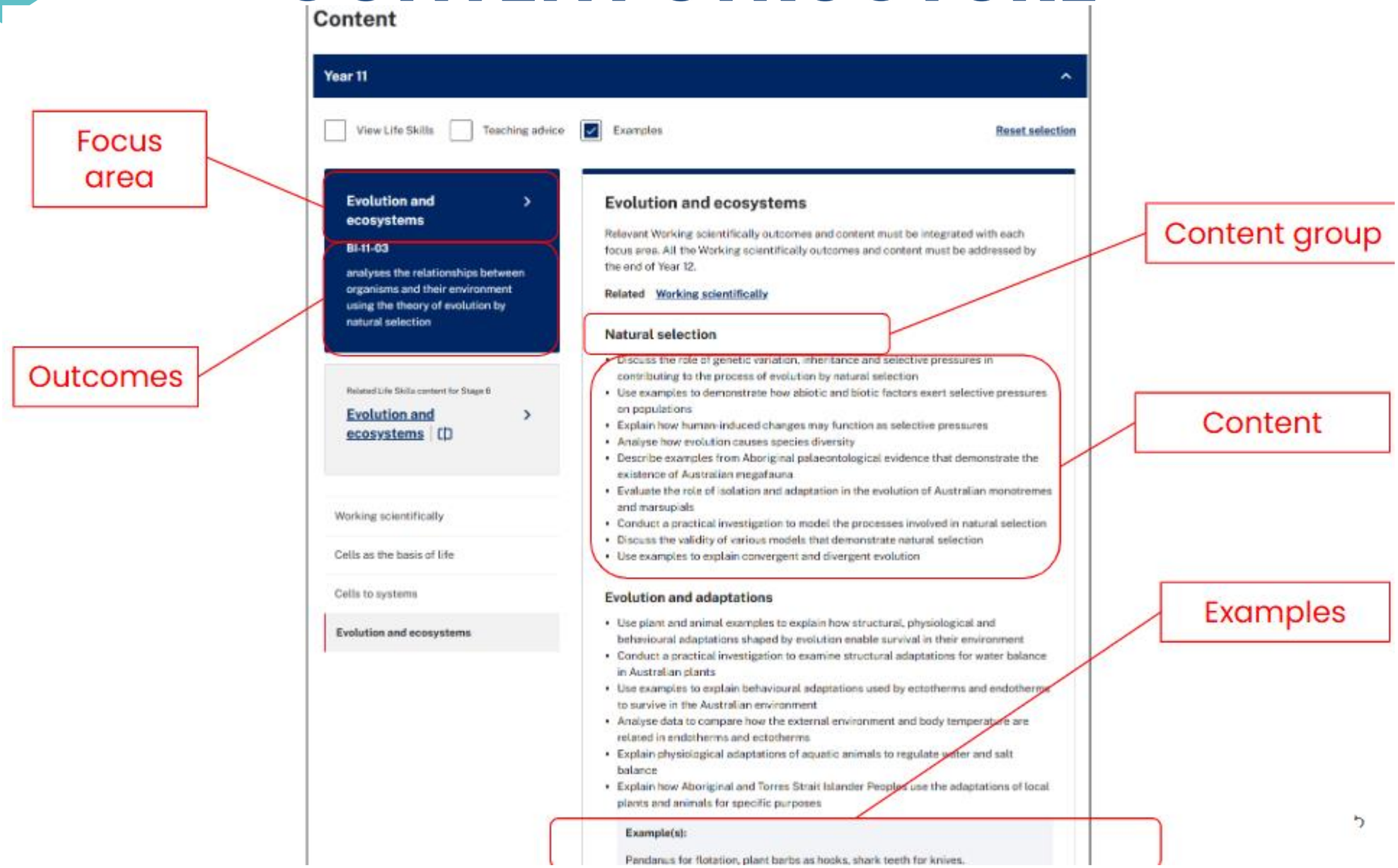
WS Skills embedded across all focus areas

Depth studies embedded

CONTENT STRUCTURE



CONTENT STRUCTURE



WS OUTCOME STATEMENTS

CURRENT

Stage 6 course outcomes A student:
Questioning and predicting **BIO11/12-1** develops and evaluates questions and hypotheses for scientific investigation

NEW

Year 11

BI-11WS-01 Working Scientifically Questioning and predicting

develops and evaluates questions and hypotheses for scientific investigations

WS CONTENT POINTS

Current WS Content

Analysing Data and Information

Outcomes

A student:

› analyses and evaluates primary and secondary data and information PH11/12-5

Content

Students:

- derive trends, patterns and relationships in data and information
- assess error, uncertainty and limitations in data (ACSPH004, ACSPH005, ACSPH033, ACSPH099)
- assess the relevance, accuracy, validity and reliability of primary and secondary data and suggest improvements to investigations (ACSPH005)

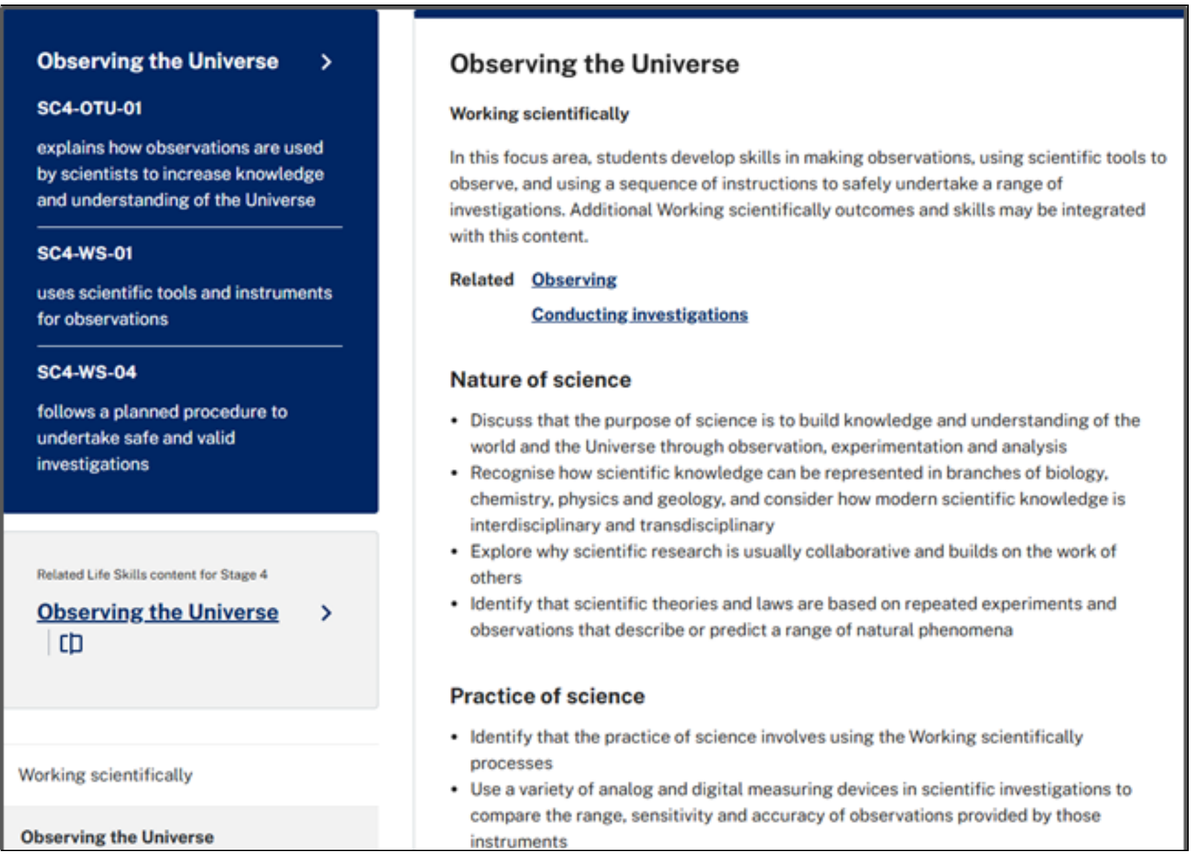
NEW WS CONTENT

Analysing data and information

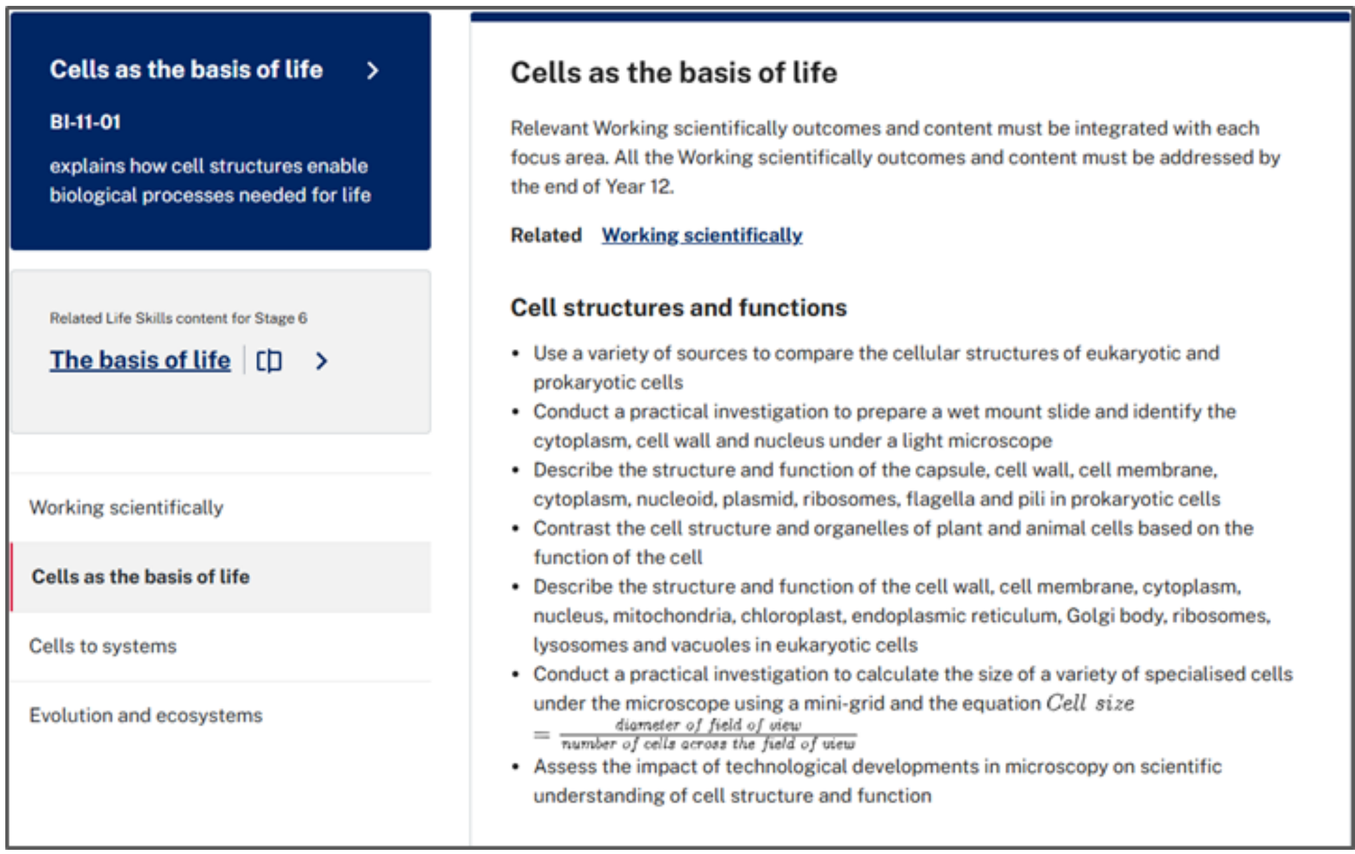
- Describe qualitative and quantitative relationships between variables
- Explain patterns and trends, including inconsistencies in data and information
- Assess error, uncertainty and limitations in data and include calculations of percentage error, range, mean and standard deviation
- Assess the validity, reliability, accuracy and precision of data and information
- Interpret data and information to identify outliers, make predictions, explain results and draw conclusions
- Evaluate data and information to suggest improvements or further investigations
- Use appropriate significant figures to express quantitative solutions
- Use appropriate scale prefixes for powers of 10: femto (f) = 10^{-15}, pico (p) = 10^{-12}, nano (n) = 10^{-9}, micro (μ) = 10^{-6}, milli (m) = 10^{-3}, kilo (k) = 10^{3}, mega (M) = 10^{6}, giga (G) = 10^{9}, tera (T) = 10^{12} and peta (P) = 10^{15}

NO TARGETTED WS SKILLS

Targeted WS Outcomes



NO Targeted WS Outcomes



7-10 SCIENCE SYLLABUS

11 BIOLOGYSYLLABUS

11 BIOLOGY

Teaching and learning support

Supporting your child: Parent and carer guide – Biology 11–12 and Biology Life Skills 11–12 669.47 KB	Oct 2025	ⓘ	⬇
Bibliography: Biology 11–12 and Biology Life Skills 11–12 944.07 KB	Sep 2025	ⓘ	⬇
Engagement report: Biology 11–12 and Biology Life Skills 11–12 1.34 MB	Sep 2025	ⓘ	⬇
Sample assessment schedule Year 11: A 923.45 KB	Sep 2025	ⓘ	⬇
Sample assessment schedule Year 11: B 923.16 KB	Sep 2025	ⓘ	⬇
Sample assessment schedule Year 12: A 924.27 KB	Sep 2025	ⓘ	⬇
Sample assessment schedule Year 12: B 924.29 KB	Sep 2025	ⓘ	⬇
Sample scope and sequence A: Year 11 – 120 hours 922.56 KB	Sep 2025	ⓘ	⬇
Sample scope and sequence A: Year 12 – 120 hours 922.51 KB	Sep 2025	ⓘ	⬇
Sample scope and sequence B: Year 11 – 120 hours 922.47 KB	Sep 2025	ⓘ	⬇
Sample scope and sequence B: Year 12 – 120 hours 923.94 KB	Sep 2025	ⓘ	⬇
Teaching advice (additional): Depth study guide 946.91 KB	Sep 2025	ⓘ	⬇
Teaching advice (additional): Fieldwork 918.41 KB	Sep 2025	ⓘ	⬇
Teaching advice (additional): Scientific investigations 922.2 KB	Sep 2025	ⓘ	⬇

DEPTH STUDY REQUIREMENTS

Students are required to undertake at least ONE depth study in the Year 11 and the Year 12 course.

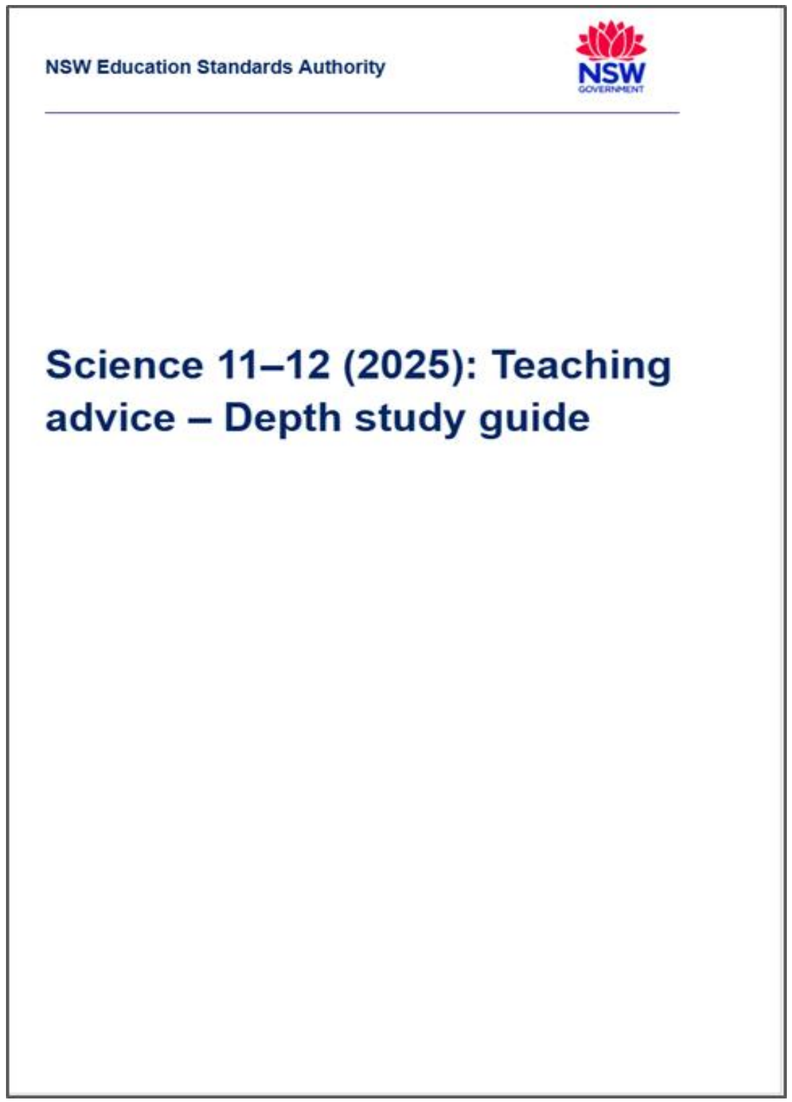
Depth studies must be allocated at least **10 indicative hours** of course time in Year 11 and Year 12.

Depth studies:

- support deeper learning of focus area content through the integration of Working scientifically
- provide opportunities for students to pursue their interests in science
- provide opportunities for formative and summative assessment.

Students may:

- plan, conduct and analyse the results of scientific investigations
- develop understanding of the conventions for representing information in varying forms to convey their results of scientific investigations
- develop and apply skills in evaluating and using secondary sources



NESA Teaching and learning support

11 Biology Syllabus Indicative Hours

Year 11 focus areas	Indicative hours
Cells as the basis of life	40
Cells to systems	40
Evolution and ecosystems	40

Depth Study Guide

Depth studies sit within the indicative number of hours

Year 11 academic year (120 indicative hours)

- Focus area 1: 37 hours
- Depth study 1: 3 hours
- Focus area 2: 37 hours
- Depth study 2: 3 hours
- Focus area 3: 36 hours
- Depth study 3: 4 hours

NESA Teaching and learning support

Scientific investigations

Each focus area in the Science 11–12 syllabuses include content points that contain scientific investigations.

These content points include:

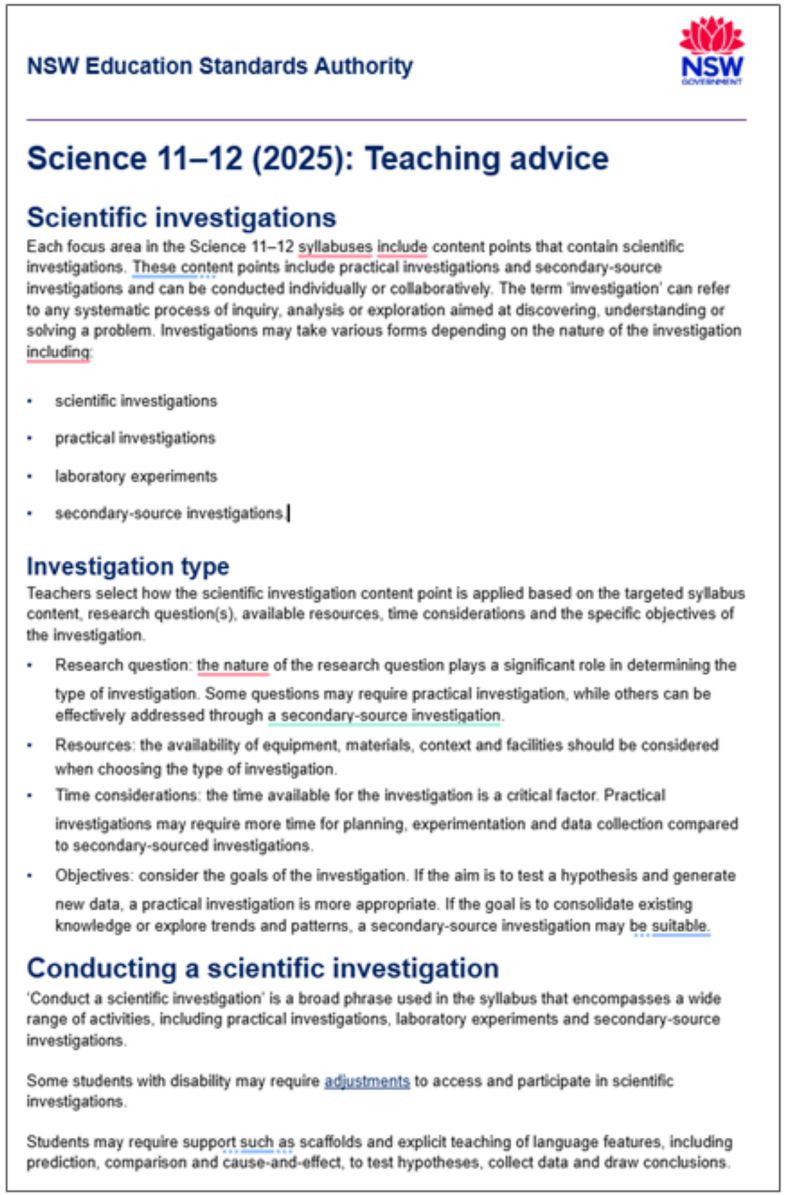
- practical investigations
- secondary-source investigations

and can be conducted individually or collaboratively.

The term 'investigation' can refer to any systematic process of inquiry, analysis or exploration aimed at discovering, understanding or solving a problem.

Investigations may take various forms depending on the nature of the investigation including:

- scientific investigations
- practical investigations
- laboratory experiments
- secondary-source investigations.



NSW Education Standards Authority

NSW GOVERNMENT

Science 11–12 (2025): Teaching advice

Scientific investigations

Each focus area in the Science 11–12 syllabuses include content points that contain scientific investigations. These content points include practical investigations and secondary-source investigations and can be conducted individually or collaboratively. The term 'investigation' can refer to any systematic process of inquiry, analysis or exploration aimed at discovering, understanding or solving a problem. Investigations may take various forms depending on the nature of the investigation including:

- scientific investigations
- practical investigations
- laboratory experiments
- secondary-source investigations

Investigation type

Teachers select how the scientific investigation content point is applied based on the targeted syllabus content, research question(s), available resources, time considerations and the specific objectives of the investigation.

- Research question: the nature of the research question plays a significant role in determining the type of investigation. Some questions may require practical investigation, while others can be effectively addressed through a secondary-source investigation.
- Resources: the availability of equipment, materials, context and facilities should be considered when choosing the type of investigation.
- Time considerations: the time available for the investigation is a critical factor. Practical investigations may require more time for planning, experimentation and data collection compared to secondary-sourced investigations.
- Objectives: consider the goals of the investigation. If the aim is to test a hypothesis and generate new data, a practical investigation is more appropriate. If the goal is to consolidate existing knowledge or explore trends and patterns, a secondary-source investigation may be suitable.

Conducting a scientific investigation

'Conduct a scientific investigation' is a broad phrase used in the syllabus that encompasses a wide range of activities, including practical investigations, laboratory experiments and secondary-source investigations.

Some students with disability may require adjustments to access and participate in scientific investigations.

Students may require support such as scaffolds and explicit teaching of language features, including prediction, comparison and cause-and-effect, to test hypotheses, collect data and draw conclusions.

NESA Teaching and learning support

Scientific investigations in the Science 11–12 syllabuses

The following is a selection of content points from the Science 11–12 syllabuses that demonstrate the ways that scientific investigations are framed.

- Conduct a scientific investigation to infer evolutionary relationships between species using DNA and amino acid sequences (Biology 11–12)

Practical investigations in the Science 11–12 syllabuses

The following is a selection of content points from the Science 11–12 syllabuses that demonstrate the ways that practical investigations are framed.

- Conduct a practical investigation to predict how changes in conditions affect photosynthesis (Biology 11–12)

Laboratory experiments in the Science 11–12 syllabuses

The following is a selection of content points from the Science 11–12 syllabuses that demonstrate the ways that laboratory experiments are framed.

- Conduct a laboratory experiment to predict the effect of the surface-area-to-volume ratio on the rate of movement of materials into and out of a cell (Biology 11–12)

Secondary-source investigations in the Science 11–12 syllabuses

The following is a selection of content points from the Science 11–12 syllabuses that demonstrate the ways that secondary-source investigations are framed.

- Conduct a secondary-source investigation to analyse the impact of diabetes on the body's ability to maintain homeostasis (Biology 11–12)

PL IDEA FOR YOUR FACULTY MEETING

Discussion:
What else has changed or moved in Stage 6 Sciences?

Biology

Chemistry

Physics

EES

PUT YOUR QUESTIONS IN THE CHAT

7-10 DATA SCIENCE

Future Meetings

STA NSW

SCIENCE TEACHERS ASSOCIATION OF NEW SOUTH WALES

MEET THE MARKERS 2026

Learn from the 2025 HSC markers, improve student outcomes.

Register on the STANSW website: https://stansw.asn.au/learning-events/

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SCIENCE TEACHERS ASSOCIATION OF NEW SOUTH WALES

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