YOUR CHILD; OUR FOCUS

Science Plan 2020-2022

Donnybrook District High School

02 Science

The Rationale

We recognise an increasing reliance on STEM subjects, such as Science, in our modern world and seek to ensure our students are supported to develop the scientific knowledge, understanding and skills to make informed decisions. We create and deliver programs that encourage students to ask and seek interesting and important questions relating to the world around them.

Students will develop an understanding of the nature of scientific inquiry and the ability to use a range of scientific methods, utilising critical and creative thinking, while drawing evidence-based conclusion.

Vision

At Donnybrook District High School, we believe that every student with our support, will achieve high performance in Science.

We want to develop in students an interest in Science as a means of expanding their curiosity and willingness to explore, ask questions about and speculate on the changing world around them.

Milestones

- PLC Action Learning Model Reviews demonstrate clear evidence of collaboration, peer observation and coaching.
- Agreed school wide assessment schedule is supported by PLCs and adhered to by all staff.
- Staff are utilising the judging standards and assessment samples provided by School Curriculum and Standards Authority (SCSA) to help make valid judgements regarding Common Assessment Tasks.
- Professional Management plans and PLC Action Learning Models are evidencing internal and external networks to inform planning and assessing.
- Planning clearly demonstrates linkage to improving Numeracy and Literacy.
- Differentiated learning and teaching adjustments for students working below or above year level expectations are evident in all classrooms and in planning documentation.
- Regular implementation of student feedback evident in all classrooms.
- Focus on engagement and curiosity evident in all classrooms.
- Common language visable and evident in all classrooms.

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A Skills based approach

2020 - 2022

Questioning and Predicting

1

Model questions that can be tested and investigated.

Explicitly teach how to predict and formulate a hypothesis.

Provide opportunities for students to make predictions.

Provide students with the opportunity to pose, identify, formulate and respond to questions.

Planning and Conducting

2

Explicitly teach and model how to:

- plan an investigation/experiment
- measure and record accurate observations
- conduct a fair test

Provide opportunities for students to plan and conduct scientific investigations and experiments individually and cooperatively.

Processing and Analysing

3

Explicitly teach how to:

- reflect on observations
- represent data using a variety of diagrams, tables and graphs

Provide opportunities for students to reflect on observations and determine patterns/relationships with collected data during investigations.

Evaluating and Communicating

4

Explicitly teach how to:

- reflect on investigations, including the fairness of the investigation
- evaluate investigation, including making suggestions for improvement

Provide opportunities for students to compare and communicate observations both orally and written form.

Moderation and Assessment

5

Utilise school wide common assessment tasks using rubric and marking guides.

Use the SCSA judging standards and achievement standards to moderate against.

Conduct moderations within PLCs, local networks and through Connect communities.

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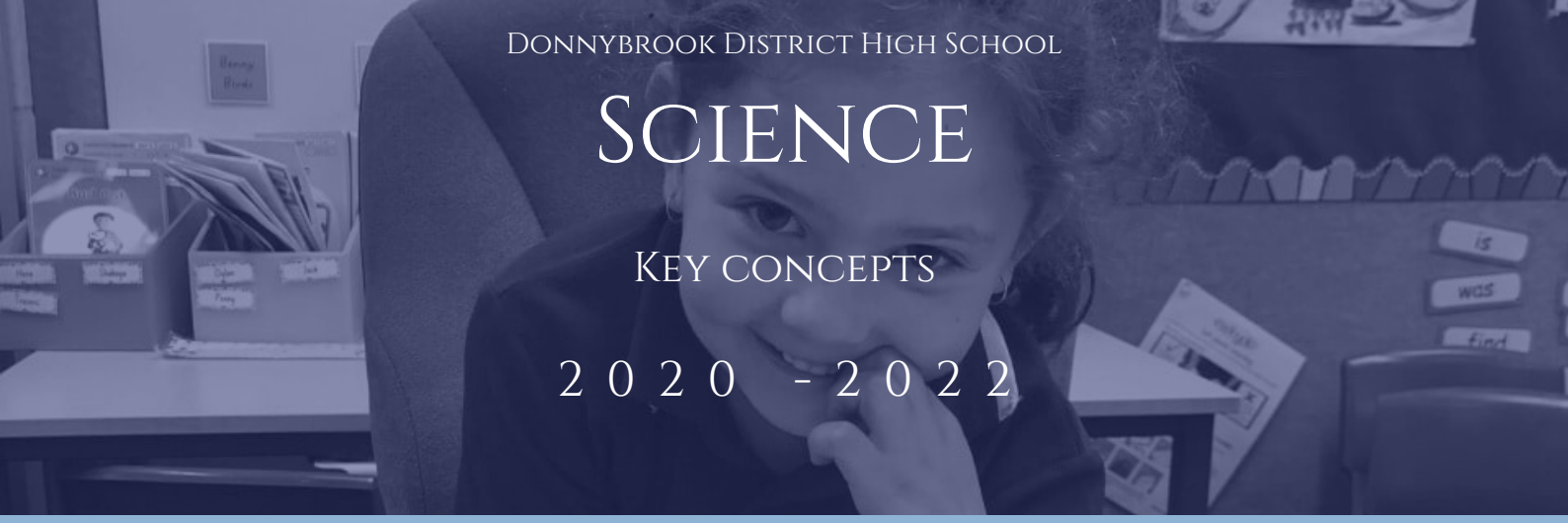

Donnybrook District High School

Science

Key concepts

2020 - 2022

Strong Staff Performance and Development

1

Seek support from specialist Science teachers as individual staff members and as a PLC.

Build networks of support and use evidence based tools to support learning and assessment.

Curriculum Concepts

2

Explicitly teach Science concepts and skills in all classrooms.

Incorporate SCSA's scope and sequence and judging standards documents when monitoring student progress.
Seek feedback from students in classrooms to check for understanding.

Link Literacy and Numeracy improvement to all Science lessons and planning documents.

Supportive and Inclusive Environments

3

Encourage engagement and curiosity through 'hands on' Science activities.

Use instructional strategies to support students within Science lessons.

Differentiate teaching and learning programs to cater for all students.

Explicitly teach common vocabulary and definitions. Implement visible learning in all classrooms with the use of word walls and environmental.

21st Century Technology

4

Check for student understanding using quiz and questioning applications.

Use technology to gather assessment information regarding student progress and achievement, such as PAT testing.

Utilise Connect communities for networking and the sharing of resources.

Use Airdrop, Connect to share student work and collaborate.

Use QR codes to guide students to relevant resources and interactive activities.

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