

NSW 2024 SYLLABUS K-6 Science & Technology

SCOPE AND SEQUENCE




FREE SCHOOL TRIAL
Free access for all teachers

inquisitive

Inquisitive Science and Technology is Being Written to Align to the NSW 2024 Syllabus

2 Part 1 of 3 Assign

A **flow chart** is a way to visually represent an **algorithm**. An algorithm is a series of steps that computers follow to solve problems or complete tasks. Jamie created a flow chart to represent the algorithm of the intro screen for his *Stair Jumper* game.



Flow Chart for Jamie's Stair Jumper Intro Screen

```
graph TD; Start([Start]) --> Clear[/Clear the screen/]; Clear --> DisplayInst[/Display instructions/]; DisplayInst --> DisplayScore[/Display score/]; DisplayScore --> Decision{Is 'space' pressed?}; Decision -- Yes --> Ready[Go to ready screen]; Decision -- No --> DisplayInst;
```

Think, Pair, Share.
What is the diamond shape representing in the flow chart?

- Ready-to-go lessons
- Inbuilt differentiation
- Hands-on investigations and experiments
- Unit assessments and teaching notes

2 Part 2 of 3 Assign

The diamond shape in a flow chart is used to represent a **decision** in an algorithm.


Flow Chart for a Self-Driving Car Algorithm

```
graph TD; Start([Start]) --> GetImage[/Get image from video camera/]; GetImage --> Decision{Is there a pedestrian ahead?}; Decision -- Yes --> SlowDown[/Slow down/]; Decision -- No --> Continue[/Continue at speed limit 40/]; SlowDown --> Continue; Continue --> End([End]);
```

Diamond decision shapes must have:

- A yes/no question
- Two arrows leading away from it
 - One for the true (yes) answer
 - One for the false (no) answer

What will the car do if there is no pedestrian ahead?



What do NSW Teachers Love About Inquisitive?



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I really appreciate Inquisitive's engaging approach to teaching, especially the transition to using interactive digital slides. They provide a visually appealing and dynamic way to present information, which helps students stay focused and makes complex topics more accessible. The slides also offer flexibility in pacing, allowing me to tailor lessons to my students' needs.

Richard, Year 3 and 4 Teacher, NSW

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I really love the switch to digital slides, the embedded videos are amazing! I love how the learning intentions and success criteria are laid out too!

Mel, K-6 Teacher, NSW



TERM 1	TERM 2	TERM 3	TERM 4
Observations and questions spark curiosity			
Living Things and How They Survive LESSONS 1-4 AVAILABLE NOW KEY INQUIRY QUESTION What is a living thing and what do they need to survive? NSW 2024 STE-SCI-01, STE-PQU-01	Observable Properties of Materials LESSONS 1-4 KEY INQUIRY QUESTION What are the observable properties of materials? NSW 2024 STE-SCI-01, STE-PQU-01	Characteristics of Plants and Animals LESSONS 1-4 KEY INQUIRY QUESTION How do the characteristics of living things help them survive? NSW 2024 STE-SCI-01, STE-PQU-01	Objects and Living Things Move LESSONS 1-4 KEY INQUIRY QUESTION How do objects and living things move in different ways? NSW 2024 STE-SCI-01, STE-PQU-01
Observations and questions initiate design and digital solutions			
Using Digital Devices LESSONS 1-3 AVAILABLE NOW KEY INQUIRY QUESTION How do digital devices and apps help us capture, share and understand information in our daily lives? NSW 2024 STE-DDT-01, STE-PQU-01	Pack It Perfect LESSONS 1-4 KEY INQUIRY QUESTION Why is food packaging important? NSW 2024 STE-DDT-01, STE-PQU-01	Safe Havens LESSONS 1-4 KEY INQUIRY QUESTION How can we design a shelter to protect animals? NSW 2024 STE-DDT-01, STE-PQU-01	



TERM 1	TERM 2	TERM 3	TERM 4
Investigations of changes provide knowledge and understanding			
Collecting Scientific Data About Habitats LESSONS 1-4 KEY INQUIRY QUESTION How does data help us understand how living things change? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01	Body Sense Organs LESSONS 1-4 KEY INQUIRY QUESTION Which parts of our body tell us about the environment? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01	Light in Action LESSONS 1-4 KEY INQUIRY QUESTION How does light behave with different materials? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01	Planet Earth LESSONS 1-4 KEY INQUIRY QUESTION In what ways do weather and seasons affect the world around us? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01
Design and digital solutions are created through knowledge and understanding			
Food, Clothing and Shelter LESSONS 1-5 KEY INQUIRY QUESTION In what ways do living things provide us with food, clothing and shelter? NSW 2024 ST1-DDT-01, ST1-PQU-01	Digital Systems in Everyday Life LESSONS 1-3 AVAILABLE NOW KEY INQUIRY QUESTION How do we use digital systems in everyday life and for learning? NSW 2024 ST1-PQU-01	Using Light LESSONS 1-3 KEY INQUIRY QUESTION How can we use light? NSW 2024 ST1-DDT-01, ST1-PQU-01	



TERM 1	TERM 2	TERM 3	TERM 4
Investigations of changes provide knowledge and understanding			
Power of Forces LESSONS 1-5 KEY INQUIRY QUESTION How can a force change how an object moves? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01	Changes Over Time LESSONS 1-4 KEY INQUIRY QUESTION What is a life cycle of a living thing? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01	Sound Journey LESSONS 1-4 KEY INQUIRY QUESTION How does sound behave with different materials? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01	Exploring the Sky LESSONS 1-6 KEY INQUIRY QUESTION How do the Sun, Moon and stars influence our daily lives and the natural world? NSW 2024 ST1-SCI-01, ST1-PQU-01, ST1-DAT-01
Design and digital solutions are created through knowledge and understanding			
Move Me LESSONS 1-4 KEY INQUIRY QUESTION How can materials be changed to create movement? NSW 2024 ST1-DDT-01, ST1-PQU-01	Sequential Steps LESSONS 1-2 KEY INQUIRY QUESTION In what ways can we control a device? NSW 2024 ST1-PQU-01	Make Some Noise LESSONS 1-4 KEY INQUIRY QUESTION How can we make a musical instrument? NSW 2024 ST1-DDT-01, ST1-PQU-01	Digital Systems and Safety LESSONS 1-3 KEY INQUIRY QUESTION How can we use digital systems safely to create and share while protecting our personal information online? NSW 2024 ST1-PQU-01



TERM 1	TERM 2	TERM 3	TERM 4
Physical and living systems depend on energy			
States and Properties of Matter LESSONS 1–4 KEY INQUIRY QUESTION What are the states of matter and their properties? NSW 2024 ST2-SCI-01, ST2-PQU-01, ST2-DAT-01	Earth's Systems and Environments LESSONS 1–4 KEY INQUIRY QUESTION In what ways do the interactions between Earth's systems impact living things and their environments? NSW 2024 ST2-SCI-01, ST2-PQU-01, ST2-DAT-01 Body Systems and Movement LESSONS 1–4 AVAILABLE NOW KEY INQUIRY QUESTION How do the bodies of living things help them move? NSW 2024 ST2-SCI-01, ST2-PQU-01	Our Solar System LESSONS 1–4 KEY INQUIRY QUESTION How do different cultures interpret the Sun and the solar system? NSW 2024 ST2-SCI-01, ST2-PQU-01, ST2-DAT-01	Transferring Heat Energy LESSONS 1–4 KEY INQUIRY QUESTION In what ways do materials interact with heat energy? NSW 2024 ST2-SCI-01, ST2-PQU-01, ST2-DAT-01
Design processes and digital systems are used to create solutions			
Boat Builders LESSONS 1–5 KEY INQUIRY QUESTION How can we combine materials and use forces to build a boat? NSW 2024 ST2-DDT-01, ST2-DDT-02	Digital Systems and Data Representation LESSONS 2, 3 & 5 AVAILABLE NOW KEY INQUIRY QUESTION How do digital systems and data help us connect, share and represent information in different ways? NSW 2024 ST2-DDT-02	Programming Basics LESSONS 1–4 AVAILABLE NOW KEY INQUIRY QUESTION What are algorithms? NSW 2024 ST2-DDT-02	Learning from the Land LESSONS 1–5 KEY INQUIRY QUESTION What is sustainable farming? NSW 2024 ST2-DDT-01, ST2-DDT-02



TERM 1	TERM 2	TERM 3	TERM 4
Physical and living systems depend on energy			
Forces Shape Earth's Surface LESSONS 1-5 KEY INQUIRY QUESTION How do natural forces shape the Earth's surface? NSW 2024 ST2-SCI-01, ST2-PQU-01	Energy Flow in Ecosystems LESSONS 1-4 KEY INQUIRY QUESTION How do living things depend on energy and each other for survival? NSW 2024 ST2-SCI-01, ST2-PQU-01, ST2-DAT-01	Gravity in Our Solar System LESSONS 1-3 KEY INQUIRY QUESTION What role does gravity play in our solar system? NSW 2024 ST2-SCI-01, ST2-PQU-01, ST2-DAT-01	Heat Energy Changes Matter LESSONS 1-3 KEY INQUIRY QUESTION How does heat energy change matter? NSW 2024 ST2-SCI-01, ST2-PQU-01, ST2-DAT-01
Design processes and digital systems are used to create solutions			
All Shook Up LESSONS 1-4 KEY INQUIRY QUESTION How can we make a building earthquake resistant? NSW 2024 ST2-DDT-01, ST2-DDT-02	Digital Navigators LESSONS 1-4 KEY INQUIRY QUESTION How can we use digital tools safely and responsibly? NSW 2024 ST2-DDT-02	Logics and Loops LESSONS 1-4 KEY INQUIRY QUESTION How can algorithms improve problem solving? NSW 2024 ST2-DDT-02	Heat and Eat LESSONS 1-5 KEY INQUIRY QUESTION In what ways does heat affect food? NSW 2024 ST2-DDT-01, ST2-DDT-02



TERM 1	TERM 2	TERM 3	TERM 4
Knowledge of our world and beyond inspires sustainable solutions			
Earth's Usable Matter LESSONS 1-3 KEY INQUIRY QUESTION What sustainable materials and practices can we use to reduce waste and protect our environment? NSW 2024 ST3-SCI-01, ST3-PQU-01, ST3-DAT-01, ST3-CWT-01	Adaptations LESSONS 1-4 KEY INQUIRY QUESTION How do behavioural and structural adaptations of plants and animals help them survive in their environments? NSW 2024 ST3-SCI-01, ST3-PQU-01, ST3-DAT-01, ST3-CWT-01	Electrical Energy LESSONS 1-3 KEY INQUIRY QUESTION How do we use different types of energy in our lives and why does the type of energy source we use matter? NSW 2024 ST3-SCI-01, ST3-PQU-01, ST3-DAT-01, ST3-CWT-01	Digestive, Respiratory and Circulatory Systems LESSONS 1-3 KEY INQUIRY QUESTION In what ways do the digestive, respiratory and circulatory systems work together to aid our survival? NSW 2024 ST3-SCI-01, ST3-PQU-01, ST3-DAT-01, ST3-CWT-01
Design and digital technologies engineer sustainable solutions			
Waste Wise LESSONS 1-4 KEY INQUIRY QUESTION What are some strategies for managing waste more sustainably? NSW 2024 ST3-DDT-01, ST3-DDT-02, ST3-CWT-01	Digital Tools and Online Protocols LESSONS 1-3 AVAILABLE NOW KEY INQUIRY QUESTION How can we responsibly use digital tools to create, share and protect information online? NSW 2024 ST3-DDT-02	Solar Smart LESSONS 1-5 KEY INQUIRY QUESTION How can we use the Sun's energy to power a home? NSW 2024 ST3-DDT-01, ST3-DDT-02, ST3-CWT-01	Decoding Data LESSONS 1-2 AVAILABLE NOW KEY INQUIRY QUESTION How do digital systems use numbers and binary to represent and communicate data? NSW 2024 ST3-DDT-02 Problem Solving and Digital Designs LESSONS 1-5 AVAILABLE NOW KEY INQUIRY QUESTION How can we design user-friendly solutions and create algorithms to meet people's needs? NSW 2024 ST3-DDT-01, ST3-DDT-02



TERM 1	TERM 2	TERM 3	TERM 4
Knowledge of our world and beyond inspires sustainable solutions			
Changing Environments and Ecosystems LESSONS 1-5 KEY INQUIRY QUESTION In what ways do plants, animals and sustainable practices influence the health and balance of environments? NSW 2024 ST3-SCI-01, ST3-PQU-01, ST3-DAT-01, ST3-CWT-01	Exploring Beyond Our Solar System AVAILABLE NOW LESSONS 1-4 KEY INQUIRY QUESTION How does exploring beyond our solar system expand our understanding of the universe and our place within it? NSW 2024 ST3-SCI-01, ST3-CWT-01	Electrical Circuits LESSONS 1-3 KEY INQUIRY QUESTION What makes an electrical circuit work and how do we ensure they are safe to use? NSW 2024 ST3-SCI-01, ST3-PQU-01, ST3-DAT-01, ST3-CWT-01	Earth's Climate LESSONS 1-4 KEY INQUIRY QUESTION How do we use technology to understand weather and climate, and what impacts do natural events and human activities have on them? NSW 2024 ST3-SCI-01, ST3-PQU-01, ST3-DAT-01, ST3-CWT-01
Design and digital technologies engineer sustainable solutions			
Managed Environments: Growing Smart LESSONS 1-6 KEY INQUIRY QUESTION How and why are food and fibre produced in managed environments? NSW 2024 ST3-DDT-01, ST3-DDT-02, ST3-CWT-01	Digital Systems and Networks AVAILABLE NOW LESSONS 1-3 KEY INQUIRY QUESTION How do the parts of digital systems work together and connect to share data? NSW 2024 ST3-DDT-02	Smart Food Choices LESSONS 1-6 KEY INQUIRY QUESTION How can we select and prepare healthy meals? NSW 2024 ST3-DDT-01, ST3-DDT-02, ST3-CWT-01	Designing Digital Systems AVAILABLE NOW LESSONS 1-2 KEY INQUIRY QUESTION How important is design in digital systems? NSW 2024 ST3-DDT-02, ST3-DDT-01

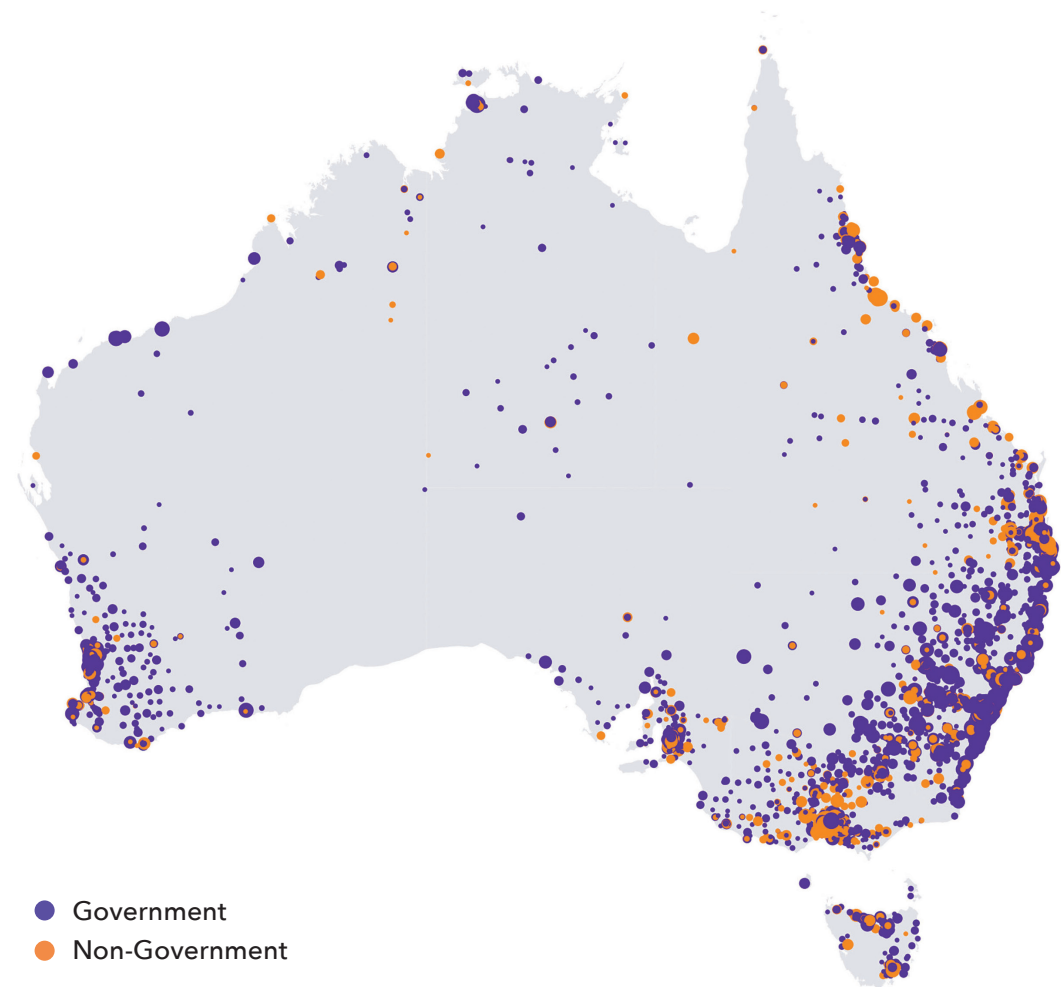
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IN OVER
5,500
SCHOOLS

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Inquisitive offers a single, high quality curriculum resource to cover multiple subjects.

Our high quality lessons weave in literacy, numeracy and cross-curriculum priorities. These lessons are full of rich, engaging activities and stimulus resources, including eBooks, maps, images, documents, web tools, and videos.



inquisitive



GEOGRAPHY



HISTORY



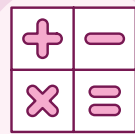
SCIENCE



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