

**Are our workshops linked to the National Curriculum?
Yes they are!**

Here you will find how our primary school workshops, **A Case of Discovery (Stages 1, 2, and 3)** and **A Case of Emergency (Stages 2 and 3)** align to the National Curriculum. As our workshops are forensic science investigations, they naturally align with the science curriculum, especially the Science Inquiry Skills portion of the curriculum. However, our workshops also aid in covering the general capabilities, specifically the skill of critical and creative thinking for your students.

Our programmes have been designed with the consultation of education and science professionals. As well as helping cover the curriculum points, our workshops are designed to engage students to critically analyse the world around them and get excited about science!

How to use this document

Use the contents table on the following page to select the appropriate year group. Click the link to see how our workshops and teacher resources are aligned to the curriculum points for that year. Each point is covered by either workshop or within the teacher resources provided when you make a booking with Education Interactive. A point only covered by A Case of Discovery will have COD noted next to it, a point only covered by A Case of Emergency will have COE next to it, and a point covered in the teacher resources will have TR next to it.

If you have any further questions about the workshops or their content and their educational value, you can send an email to enquiries@educationinteractive.com.au.

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Year 1

Science Understanding

Biological sciences

- Living things have a variety of external features (**ACSSU017**)
 - recognising common features of animals such as head, legs and wings
COD - Students utilise common features of humans to create a sketch of the suspect. Hair colour, gender, and eye colour are some features which they will need to determine.
 - describing the use of animal body parts for particular purposes such as moving and feeding
COD - Students examine marine organisms and their features to determine which organisms can bite, sting, or cause irritation.
- Living things live in different places where their needs are met (**ACSSU211**)
 - exploring different habitats in the local environment such as the beach, bush and backyard
COD - Students examine which organisms live in aquatic environments as the case takes place on a boat.
 - recognising that different living things live in different places such as land and water
COD - Students examine which organisms live in aquatic environments as the case takes place on a boat.

Chemical sciences

- Everyday materials can be physically changed in a variety of ways (**ACSSU018**)
 - predicting and comparing how the shapes of objects made from different materials can be physically changed through actions such as bending, stretching and twisting
COD - Students use malleable material (play dough) to push impression prints into.

Physical sciences

- Light and sound are produced by a range of sources and can be sensed (**ACSSU020**)
 - recognising senses are used to learn about the world around us: our eyes to detect light, our ears to detect sound, and touch to feel vibrations
COD - Students will be introduced to how their senses can help them learn and discover what happened in this case.
 - identifying the sun as a source of light
COD - Students will use UV light to examine evidence and be introduced to the concept of various light sources.
 - recognising that objects can be seen when light from sources is available to illuminate them

COD - Students will use UV light to examine evidence to show hidden messages.

Science as a Human Endeavour

Nature and development of science

- Science involves observing, asking questions about, and describing changes in, objects and events (**ACSHE021**)
 - recognising that descriptions of what we observe are used by people to help identify change

COD - Observations of the case are shared with students, including descriptions of coins. Students must examine and match up the damage coins.

Use and influence of science

- People use science in their daily lives, including when caring for their environment and living things (**ACSHE022**)
 - considering how science is used in activities such as cooking, fishing, transport, sport, medicine and caring for plants and animals

COD - Students will use scientific concepts to help determine what animal may have hurt the victim

Science Inquiry Skills

Questioning and predicting

- Pose and respond to questions, and make predictions about familiar objects and events (**AC SIS024**)
 - thinking about "What will happen if.....?" type questions about everyday objects and events

COD - This is a big basis of our investigation. Students will be directed to question "What will happen if..." throughout the evidence stations.

- using the senses to explore the local environment to pose interesting questions and making predictions about what will happen

COD - Students need to engage their senses, especially the sense of sight to make observation and predictions to solve this investigation.

Planning and conducting

- Participate in guided investigations to explore and answer questions (**AC SIS025**)
 - manipulating objects and making observations of what happens

COD - Students need to make impressions to see if the impression reflects the original objects.

- exploring different ways of solving science questions through guided discussion

COD - Students will be guided through the investigation and how to use the items at each evidence station to solve questions about the case. There will also be discussion at the end where students have an opportunity to present their theories and discuss with the class.

Processing and analysing data and information

- Use a range of methods to sort information, including drawings and provided tables and through discussion, compare observations with predictions (**ACSIS027**)
 - discussing original predictions and, with guidance, comparing these to their observations

COD - Students will form predictions of what happened and relate these to the observations made about the evidence.

Evaluating

- Compare observations with those of others (**ACSIS213**)
 - discussing observations as a whole class to identify similarities and differences in their observations

COD - Class discussion at the end will highlight similarities and differences in the student's observations throughout the investigation.

Communicating

- Represent and communicate observations and ideas in a variety of ways (**ACSIS029**)
 - discussing or representing what was discovered in an investigation
 - engaging in whole class or guided small group discussions to share observations and ideas

COD - Class discussion as well as group discussion is encouraged throughout the workshop. Students will work in small groups to complete the worksheet and finish each evidence station.

Year 2

Science Understanding

Chemical sciences

- Different materials can be combined for a particular purpose (**ACSSU031**)
 - suggesting why different parts of everyday objects such as toys and clothes are made from different materials

COD - Although not strictly part of the investigation, students have the opportunity to use a digital microscope to see how different materials look under magnification. They can compare the materials that their clothes are made up of.

Science as a Human Endeavour

Nature and development of science

- Science involves observing, asking questions about, and describing changes in, objects and events (**ACSHE034**)
 - describing everyday events and experiences and changes in our environment using knowledge of science

COD – Students need to describe what happened in each scenario using the knowledge of science and the evidence they have examined.

Science Inquiry Skills

Questioning and predicting

- Pose and respond to questions, and make predictions about familiar objects and events (**AC SIS037**)
 - using the senses to explore the local environment to pose interesting questions, make inferences and predictions

COD - Students need to engage their senses, especially the sense of sight to make observation and predictions to solve this investigation.

- thinking about ‘What will happen if...?’ type questions about everyday objects and events

COD - This is a big basis of our investigation. Students will be directed to question “What will happen if...” throughout the evidence stations.

Planning and conducting

- Participate in guided investigations to explore and answer questions (**AC SIS038**)
 - manipulating objects and materials and making observations of the results

COD - Students need to make impressions to see if the impression reflects the original objects.

- researching with the use of simple information sources

COD - Students need to gather information about the case by using the information boards, as well as their own observation skills and results.

Processing and analysing data and information

- Use a range of methods to sort information, including drawings and provided tables and through discussion, compare observations with predictions (**ACSIS040**)

- comparing and discussing, with guidance, whether observations were expected

COD - Students will make observations by analysing the evidence available, this will result in some observations that may not have been expected by them from the initial information given.

Evaluating

- Compare observations with those of others (**ACSIS041**)

- discussing observations with other students to see similarities and differences in results

COD - Class discussion at the end will highlight similarities and differences in the student's observations throughout the investigation.

Communicating

- Represent and communicate observations and ideas in a variety of ways (**ACSIS042**)

- presenting ideas to other students, both one-to-one and in small groups

COD - This workshop naturally encourages students to communicate their observations with each other to come to a group conclusion. Students will work in small groups to complete the worksheet and finish each evidence station.

- discussing with others what was discovered from an investigation

COD - Class discussion as well as group discussion is encouraged throughout the workshop. The workshop concludes with a class discussion to solve the case using student observations.

Year 3

Science Understanding

Biological sciences

- Living things can be grouped on the basis of observable features and can be distinguished from non-living things (**ACSSU044**)
 - recognising the range of different living things
COE – Students need to compare the features of a range of living things, including various plants and animals.
 - exploring differences between living, once living and products of living things
COD - Students will be introduced to once living and products of living things as evidence stations may include samples of coral, snake skin, feathers, etc for the students to examine with the digital microscope.
COE – Various once living and products of living things are part of the evidence the students will learn about. These samples include botany samples and (fake) scat samples.

Chemical sciences

- A change of state between solid and liquid can be caused by adding or removing heat (**ACSSU046**)
 - predicting the effect of heat on different materials
COE – Students are set a task of predicting the age of a liquid based on decomposition via heat.

Science as a Human Endeavour

Nature and development of science

- Science involves making predictions and describing patterns and relationships (**ACSHE050**)
 - considering how posing questions helps us plan for the future
COD & COE - Students will need to question the evidence in front of them in order to extract more information and to begin to make links in the investigation.

Use and influence of science

- Science knowledge helps people to understand the effect of their actions (**ACSHE051**)
 - researching Aboriginal and Torres Strait Islander peoples' knowledge of the local natural environment, such as the characteristics of plants and animals
COE – Students are introduced to how the Aboriginal and Torres Strait Islander peoples' used their knowledge of plants and animals to track animals and even criminals!
 - investigating how science helps people such as nurses, doctors, dentists, mechanics and gardeners
COD & COE - We would like to add Policemen and Forensics too! We will introduce the role of the medical doctor and the detective and explain how science helps them do their jobs.

Science Inquiry Skills

Questioning and predicting

- With guidance, identify questions in familiar contexts that can be investigated scientifically and make predictions based on prior knowledge (**ACSIS053**)
 - jointly constructing questions that may form the basis for investigation
COD & COE - In the investigation, students will naturally, and with the help of the worksheet, form questions about the investigation they are engaged in.
 - working in groups to discuss things that might happen during an investigation
COD & COE - Working together students will discuss what may happen in their investigation or the outcome of their investigation.

Planning and conducting

- With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment (**ACSIS054**)
 - working with teacher guidance to plan investigations to test simple cause-and-effect relationships
COD & COE - This is another basis of scientific and especially forensic investigations.
 - discussing as a whole class ways to investigate questions and evaluating which ways might be most successful
 - discussing safety rules for equipment and procedures
COD & COE - Students are directed towards any potential OH&S hazards within the workshop with an explanation of the equipment is given. Note: all equipment is safe for use and workshops have an associated risk assessment available.
- Consider the elements of fair tests and use formal measurements and digital technologies as appropriate, to make and record observations accurately (**ACSIS055**)
 - using a variety of tools to make observations, such as digital cameras, thermometers, rulers and scales
COD & COE - One of our most popular displays is our Digital Microscope station. They will be set up to allow students to examine evidence on a much smaller scale.

Processing and analysing data and information

- Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends (**ACSIS057**)
 - identifying and discussing numerical and visual patterns in data collected from students' own investigations and from secondary sources
COE - A simple visual counting tool is used to represent complicated spectra results. Students need to recreate the result by essential building a graph of the results.
- Compare results with predictions, suggesting possible reasons for findings (**ACSIS215**)

- discussing how well predictions matched results from an investigation and sharing ideas about what was learnt

COD & COE - The wrap up to the case where the students solve the crime will allow for evaluation of predictions vs results. Each station also allows for this reflective process as students need to answer questions at each station, and after conducting the activity their results may change from their initial prediction.

Evaluating

- Reflect on investigations, including whether a test was fair or not (**AC SIS058**)
 - describing experiences of carrying out investigations to the teacher, small group or whole class

COE & COD - Students can describe the investigations they undertook at each station to each other, a teacher or share with the group at the end.

Communicating

- Represent and communicate observations, ideas and findings using formal and informal representations (**AC SIS060**)
 - acknowledging and exploring Aboriginal and Torres Strait Islander peoples' ways of communicating information about anatomical features of organisms

COE - Students are introduced to the extensive knowledge on animal features and tracking that the Aboriginal and Torres Strait Islander peoples' hold.

- communicating with other students carrying out similar investigations to share experiences and improve investigation skill

COD & COE - Students will be in small groups helping each other and sharing ideas as they progress through the investigation.

- exploring different ways to show processes and relationships through diagrams, models and role play

COD – A DNA model puzzle is used to represent human DNA. There is also the chance for role play as the students are invited up as the suspects and the detective who make the arrest.

COE – A chromatography model is one of the evidence stations in this workshop. There is also footprint impression models that students need to compare and match.

- using simple explanations and arguments, reports or graphical representations to communicate ideas to other students

COD & COE - Students will be asked to share their ideas and findings to the class in the wrap up at the end of the workshop.

Year 4

Science Understanding

Biological sciences

- Living things have life cycles (**ACSSU072**)
 - describing the stages of life cycles of different living things such as insects, birds, frogs and flowering plants

TR - Students will investigate the life cycle of flies and how they help to determine when someone died.

Chemical sciences

- Natural and processed materials have a range of physical properties that can influence their use (**ACSSU074**)
 - describing a range of common materials, such as metals or plastics, and their uses
COD & COE - Students have the opportunity to see how different materials are weaved based on their use. Using the digital microscope they can observe that the material their top is made out of looks very different to the material in their jumper or socks.

- investigating a particular property across a range of materials

COD & COE - UV dark room tents will have students investigating the UV fluorescence properties of a range of materials and objects.

Physical sciences

- Forces can be exerted by one object on another through direct contact or from a distance (**ACSSU076**)
 - investigating the effect of forces on the behaviour of an object through actions such as throwing, dropping, bouncing and rolling

TR - Students will identify how changes in force and movements can alter blood patterns and a crime scene.

Science as a Human Endeavour

Nature and development of science

- Science involves making predictions and describing patterns and relationships (**ACSHE061**)
 - considering how scientific practices such as sorting, classification and estimation are used by Aboriginal and Torres Strait Islander peoples in everyday life

COE – Students see how Aboriginal and Torres Strait Islander peoples classify and identify animals based on tracks and scat they leave behind.

- exploring ways in which scientists gather evidence for their ideas and develop explanations

COD & COE - We will be taking this one very literally through Crime Scene Investigation! This is the basis of our workshops!

Science Inquiry Skills

Questioning and predicting

- With guidance, identify questions in familiar contexts that can be investigated scientifically and make predictions based on prior knowledge (**AC SIS064**)
 - choosing questions to investigate from a list of possibilities
COD & COE - Students will have to prioritise their investigations from multiple possible options and pathways.

Planning and conducting

- With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment (**AC SIS065**)
 - exploring different ways to conduct investigations and connecting these to the types of questions asked with teacher guidance
COD & COE - Students will use various methods and recording strategies in the investigation of the crime.
 - working in groups, with teacher guidance, to plan ways to investigate questions
COD & COE - The overall questions of "Who, What, Where, & Why?" will require planning and group work to answer.
 - discussing and recording safety rules for equipment as a whole class
COD & COE - Students are directed towards any potential OH&S hazards within the workshop with an explanation of the equipment is given. Note: all equipment is safe for use and workshops have an associated risk assessment available.

Processing and analysing data and information

- Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends (**AC SIS068**)
 - identifying and discussing numerical and visual patterns in data collected from students' investigations and from other sources
COD – The DNA model requires the recognition of visual patterns to construct and the results represent scientific data.
COE - The Chromatography model that students build represents scientific spectra and students need to recognize visual patterns to analyse the data presented.
- Compare results with predictions, suggesting possible reasons for findings (**AC SIS216**)
 - discussing how well predictions matched results from an investigation and proposing reasons for findings
COD & COE - The wrap up to the case where the students solve the crime will allow for evaluation of predictions vs results. Each station also allows for this reflection as students need to answer questions at each station, and after conducting the activity their results may change from their initial prediction. They may also have to determine and justify why the results differ from their predictions.

- comparing, in small groups, proposed reasons for findings and explaining their reasoning

COD & COE - Findings at each of the evidence stations can be discussed among students to determine the possible reasons for that finding, which will help solve the crime.

Evaluating

- Reflect on investigations, including whether a test was fair or not (**ACSIS069**)
 - reflecting on investigations, identifying what went well, what was difficult or didn't work so well, and how well the investigation helped answer the question

COD & COE - Students will discover that even Forensic Science has its limits and not everything works perfectly like on TV. Students may see that certain techniques work better under certain conditions (e.g. UV light works best in dark locations).

Communicating

- Represent and communicate observations, ideas and findings using formal and informal representations (**ACSIS071**)
 - communicating with other students carrying out similar investigations to share experiences and improve investigation skills

COD & COE - Students will be in small groups helping each other and sharing ideas as they progress through the investigation.

- using simple explanations and arguments, reports or graphical representations to communicate ideas to other students

COD & COE - Students will be asked to explain their findings to the class. Students may also develop theories as to what happened as they can share their explanation of this with the class during the wrap up of the workshop.

Year 5

Science Understanding

Biological sciences

- Living things have structural features and adaptations that help them to survive in their environment (**ACSSU043**)
 - describing and listing adaptations of living things suited for particular Australian environments
COE – Students will have to identify various tracks of Australian animals based on their unique features due to evolutionary adaptations.

Chemical sciences

- Solids, liquids and gases have different observable properties and behave in different ways (**ACSSU077**)
 - exploring the way solids, liquids and gases change under different situations such as heating and cooling
COE – students investigate how liquid insulin can be broken down by heat and observe how this changes its chemical profile.
 - recognising that not all substances can be easily classified on the basis of their observable properties
COD – students are shown the microscopic differences between real and fake gold showing how hard it is to distinguish the two using observational properties.

Physical sciences

- Light from a source forms shadows and can be absorbed, reflected and refracted (**ACSSU080**)
 - recognising that the colour of an object depends on the properties of the object and the colour of the light source
COD & COE - Students will get to investigate the use of UV (purple) light and how it differs to white light in its properties. Students will observe that certain substances change in appearance under this UV light.

Science as a Human Endeavour

Nature and development of science

- Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (**ACSHE081**)
 - developing an understanding of the behaviour of light by making observations of its effects
COD & COE - Students will observe the effect of UV light when used on certain pieces of evidence.

Science Inquiry Skills

Questioning and predicting

- With guidance, pose clarifying questions and make predictions about scientific investigations (**ACSIS231**)
 - applying experience from similar situations in the past to predict what might happen in a new situation
COD & COE - Students can apply the knowledge gained from one piece of evidence or information to the rest of the investigation.

Planning and conducting

- Identify, plan and apply the elements of scientific investigations to answer questions and solve problems using equipment and materials safely and identifying potential risks (**ACSIS086**)
 - consulting with Aboriginal and Torres Strait Islander peoples to guide the planning of scientific investigations, considering potential risks for field investigations
COE- students are introduced to the concept of the native tracker and how they've been consulted in forensic investigations.
 - experiencing a range of ways of investigating questions, including experimental testing, internet research, field observations and exploring simulations
COD & COE - Our workshops use a combination of these techniques to allow students to investigate questions.
 - explaining rules for safe processes and use of equipment
COD & COE – Facilitators explain any potential OH&S hazards within the workshop with an explanation of how to safely use the equipment at each station. Note: all equipment is safe for use and workshops have an associated risk assessment available.
 - discussing the advantages of certain types of investigation for answering certain types of questions
COD & COE - Students will have to adapt to different ways of thinking and take several approaches to solve the complex cases.
 - considering different ways to approach problem solving, including researching, using trial and error, experimental testing and creating models
COD & COE - Our workshops allow students to approach problem solving in a number of ways to ultimately solve the crime.

Processing and analysing data and information

- Compare data with predictions and use as evidence in developing explanations (**ACSIS218**)
 - sharing ideas as to whether observations match predictions, and discussing possible reasons for predictions being incorrect
COD & COE - Some of the best forensics comes from explaining the exception to the rule.

Communicating

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- Communicate ideas, explanations and processes using scientific representations in a variety of ways, including multi-modal texts (**AC SIS093**)
 - discussing how models represent scientific ideas and constructing physical models to demonstrate an aspect of scientific understanding
 - COD – DNA model to be constructed by students which helps explain the principles behind DNA and reveals the traits of the suspect.*
 - COE – Chromatography model is constructed by students which represents scientific data output (spectra).*

Year 6

Science Understanding

More teacher resources coming soon!

Science as a Human Endeavour

Nature and development of science

- Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions **(ACSHE098)**

COD & COE - The driving force behind all forensic investigation is the reconstruction of events based on the evidence examined by the investigators.

Use and influence of science

- Scientific knowledge is used to solve problems and inform personal and community decisions **(ACSHE100)**

COD – The case extends beyond the science to explore the benefits forensics has in terms of serving the community by catching criminals.

COE – Use of scientific techniques helps locate the missing child.

Science Inquiry Skills

Questioning and predicting

- With guidance, pose clarifying questions and make predictions about scientific investigations **(ACSIS232)**

- asking questions to understand the scope or nature of a problem

COD & COE - Students will naturally ask questions relating to the evidence they analyse, techniques they use, and as they start to piece together the story.

- applying experience from previous investigations to predict the outcomes of investigations in new contexts

COD & COE – As the workshop is split up into multiple evidence stations, students need to hypothesise what happened, and these ideas will evolve as they complete more evidence stations and build on their knowledge.

- Decide variables to be changed and measured in fair tests, and observe measure and record data with accuracy using digital technologies as appropriate **(ACSIS104)**

- using digital technologies to make accurate measurements and to record data

COD & COE - Our Digital Microscopes will allow students to examine and record evidence at up to 500x magnification!

Processing and analysing data and information

- Compare data with predictions and use as evidence in developing explanations (**AC SIS221**)
 - sharing ideas as to whether observations match predictions, and discussing possible reasons for predictions being incorrect

COD & COE - Students will develop ideas about what happened before seeing the evidence. After the investigation, students will see that the initial predictions may not always be correct. There may be some explanations discussed during the end of the workshop, or throughout the workshop.

- referring to evidence when explaining the outcomes of an investigation

COD & COE - Students will need to examine data and evidence, and use that evidence to explain their proposed outcome.

Communicating

- Communicate ideas, explanations and processes using scientific representations in a variety of ways, including multi-modal texts (**AC SIS110**)
 - using a variety of communication modes, such as reports, explanations, arguments, debates and procedural accounts, to communicate science ideas

COD & COE - Students will be asked to explain their findings to the class. Students may also develop theories as to what happened as they can share their explanation of this with the class during the wrap up of the workshop.