

Linking River Detectives activities with ResourceSmart Schools actions

River Detectives (RD) is an engaging environmental education program helping teachers and students connect with nature and learn about waterways and catchments. Through hands-on citizen-science activities, young people are able to use real data about important places in their community and become change-makers by advocating for waterway health.

ResourceSmart Schools (RSS) is a free program offered by Sustainability Victoria that supports Victorian schools to embed sustainability across school facilities, communities and curriculum, while saving resources and money for the school.

Schools have access to an online portal, ticking off actions across five modules, with the ultimate goal of becoming a five-star accredited school.

Many schools that prioritise sustainability education are involved in both programs, making the most of the links that exist to help them achieve RSS modules. The following table highlights the most obvious synergies between the River Detectives and ResourceSmart Schools programs. As the River Detectives program is flexible, others may exist.

ResourceSmart Schools Water Module	
A Workplace and operational	
A2 Preparation and planning	
RSS action	RD activity
A2.2 We have completed staff professional development on water conservation, water quality, river health, water efficiency and/or associated themes.	Participation in annual sessions run by RD coordinators: <ul style="list-style-type: none"> • Introductory PD: water quality testing procedures, the program and website • Macroinvertebrate Sampling PD: how to identify waterbugs and run a waterbug session with students • Ask The Expert webinars • School incursions • Project Prattles (NC region only)
A2.5 We have water conservation interpretive signs throughout the school.	Studying urban stormwater using this themed activity matrix then installing signage to highlight the connection between school stormwater pits and the local waterway.
A2.6 We have created and implemented water maintenance procedures for managing taps, toilets, showers, dishwashers, cleaning stormwater pits, oval watering, garden irrigation and/or night watering.	Studying urban stormwater using this themed activity matrix then working out ways to manage school stormwater pits.

A3 Water efficiency and supply	
RSS action	RD activity
A3.7 We have reused stormwater and/or grey water in the school toilets.	Studying urban stormwater using this themed activity matrix then making a commitment to harvest stormwater and use it in the school.
A4 Gardens and school grounds	
RSS action	RD activity
A4.5 We have a process in place for rubbish-free stormwater pits.	Studying urban stormwater using this themed activity matrix then reducing stormwater pollution travelling from the school to the local waterway.
A4.6 We have a process to collect stormwater for garden water supply and/or wetland or habitat development.	Studying urban stormwater using this themed activity matrix then using innovative design to repurpose stormwater.
B Learning and teaching	
B1 Water, waterways and catchments	
RSS action	RD activity
B1.2 We have ensured that our water education curriculum is linked to the current mandated curriculum.	Linking River Detectives activities with relevant parts of the Victorian curriculum eg. VCSSU101 “Water is an important resource that cycles through the environment”, Science / Levels 7 and 8 / Science Understanding / Earth and space sciences
B1.3 We have included authentic, immersive, hands-on learning opportunities in our water education program.	<p>Participation in the hands-on citizen science of water quality testing, macroinvertebrate sampling, habitat surveys and Pesticide Watch.</p> <p>Completing of activities from one of the themed activity matrices, particularly the water quality/water cycle matrix.</p> <p>Collaboration with a local community group eg. Landcare to get involved in on-ground habitat/waterway restoration work.</p>
B1.4 We have incorporated Aboriginal and Torres Strait Islander learning perspectives in the development of our water education program.	Using the resources on our website Aboriginal Cultures River Detectives to learn how traditional owners connect with water and catchments. Aboriginal and Torres Strait Islander Histories and Cultures content is also embedded into our themed activity matrices .
B1.6 We have participated in educational activities such as Waterwatch, Saltwatch, Coastcare, Catchment Management Authority (<i>River Detectives</i>) or equivalent water habitat focused programs.	Participation in River Detectives. Citizen-science activities along with uploading of results to the data portal , other cross-curricular activities, school incursions, webinars and collaboration with local environmental groups.

C Whole school community engagement	
C1 Policy and reporting	
RSS action	RD activity
C1.1 We have communicated our water related activities, including progress made to conserve water, to our school community.	Sharing River Detectives learnings/data at assembly, in the school newsletter, on the facebook page or in the school foyer.
C1.2 We have completed at least one school learning story that celebrates our water education or conservation achievements and shared this with our school community.	As above, sharing water quality data, news of a River Detectives incursion/excursion, or on-ground achievements on school website, school or community facebook pages, in the school newsletter. The program shares these stories in our reporting. <u>Stories of Change</u> are written about one school in each region annually. These are published and shared widely.
C2 Student and parent leadership	
RSS action	RD activity
C2.1 We have involved students in the development of our water education and conservation program.	River Detectives is a flexible program. It starts with the three, core citizen-science activities then students and teachers come up with questions, wonderings, inquiries and different directions to head with the program. There may be examples of students directing the way the program is run in the school.
C2.2 We have a student action team that contributes to the implementation of the Water Conservation Annual Plan and coordinates water related activities across the school.	Students action teams taking responsibility for conducting the water quality testing each month and uploading the data. Student action teams championing waterways and catchments in the school and wider community eg posters, signs, presentations and on-ground activities.
C3 Community and communication links	
RSS action	RD activity
C3.1 We have collaborated with our local council and/or water authority to develop and participate in water related projects within the school and/or wider community.	Liaising with local water authorities/Catchment Management Authorities to participate in the program. Linking with other CMA projects to learn more about waterway / catchment health and restoration. Beyond this, participating in: <ul style="list-style-type: none"> • Deakin University's Pesticide Watch • RMIT's Litter Trackers • Birdlife Australia's Backyard Bird Count • Odonata's Great Australian Wildlife Search
C3.2 We have actively participated in local water related activities.	Enjoying a River Detectives incursion or excursion to learn about water. Collaborating with the local Landcare group or council (even angling group or Lions Club) to help with revegetation of river reserves, propagating

	plants for riverine habitat, improving signage at boat ramps, participating in Water Week activities.
C3.4 We have given presentations about our school's water education programs to other schools and/or organisations.	Presenting about River Detectives at a Kids Teaching Kids event, at the ResourceSmart Schools Awards, in webinars and at community events.
C3.5 We have received support for water related projects from local, state and federal governments, local businesses and local friends' groups.	Accessing grants for projects eg. Junior Landcare Grants. Working with Landcare / Friends Of groups to complete on-ground projects or getting support from local nurseries or Men's Sheds to increase riverine habitat.

ResourceSmart Schools Biodiversity Module	
A Workplace and operational	
A1 Current status and research	
RSS action	RD activity
A1.1 We have undertaken a biodiversity audit at our school.	Completing a water bug survey or habitat survey of the school wetland or neighbouring waterway.
A1.2 We have undertaken a wildlife audit, identifying, monitoring, and documenting the native animals at our school.	Studying fauna using this themed activity matrix then completing a pollinator survey, backyard bird count, etc
A2 Preparation and planning	
RSS action	RD activity
A2.2 We have completed staff professional development on biodiversity and associated themes.	Participation in annual sessions run by RD coordinators: <ul style="list-style-type: none"> • Macroinvertebrate Sampling PD: how to identify waterbugs and run a waterbug session with students • Ask The Expert webinars • School incursions • Project Prattles (NC region only)
A2.3 We have applied for biodiversity related grants, awards, or competitions.	Accessing grants for projects eg. Junior Landcare Grants, working with Landcare / Friends Of groups to access Victorian Landcare Grant funding or entering the RSS awards with River Detectives work as part of the nomination.
A3 Habitat creation and maintenance	
RSS action	RD activity
A3.1 We have in place environmentally sensitive soil management and stormwater management processes for school grounds.	Studying urban stormwater using this themed activity matrix then using innovative design to repurpose stormwater or limiting stormwater pollutants such as soil, leaves, litter.
A3.2 We have maintained and protected our conservation areas and remnant vegetation.	Schools with wetlands on site may achieve one or all four of these actions by protecting the

<p>A3.3 We have established habitat development areas and aesthetic works to enhance the school yard.</p> <p>A3.4 We have appropriately fenced and guarded sensitive vegetation areas.</p> <p>A3.5 We have established nature trails and installed interpretive signage.</p>	<p>wetland, enhancing the wetland and installing signage at the wetland about aquatic / terrestrial fauna or habitat zones.</p>
<p>A4 Garden waste management</p>	
<p>RSS action</p>	<p>RD activity</p>
<p>A4.1 We have regularly undertaken mulching, weed control and vegetation litter management.</p> <p>A4.2 We have composted, mulched or chipped our garden waste.</p>	<p>Studying urban stormwater using this themed <u>activity matrix</u> then using limiting stormwater pollutants that may enter stormwater pits such as soil (with mulching) or leaves (with composting, mulching).</p>
<p>A5 Biodiversity and litter</p>	
<p>RSS action</p>	<p>RD activity</p>
<p>A5.1 We have a litter management plan that protects our school's biodiversity.</p>	<p>Studying urban stormwater and the issue of litter in waterways using this themed <u>activity matrix</u> then putting steps in place to limit litter entering stormwater pits.</p>
<p>B Learning and teaching</p>	
<p>B1 Landcare, habitat, ecology and sustainable land management</p>	
<p>RSS action</p>	<p>RD activity</p>
<p>B1.2 We have linked our biodiversity education curriculum to the current mandated curriculum.</p>	<p>Linking River Detectives activities with relevant parts of the Victorian curriculum eg. VCSSU058 "Different living things have different life cycles and depend on each other and the environment to survive", Science / Levels 3 and 4 / Science Understanding / Biological sciences</p>
<p>B1.3 We have included authentic, immersive, hands-on learning opportunities in our biodiversity education program.</p>	<p>Participation in the hands-on citizen science of <u>water quality testing, macroinvertebrate sampling, habitat surveys</u> and Pesticide Watch.</p> <p>Completing of activities from one of the <u>themed activity matrices</u>.</p> <p>Collaboration with a local community group eg. Landcare to get involved in on-ground habitat/waterway restoration work.</p>
<p>B1.4 We have incorporated Aboriginal and Torres Strait Islander learning perspectives in the development of our water education program.</p>	<p>Using the resources on our website <u>Aboriginal Cultures River Detectives</u> to learn how traditional owners connect with water and catchments. Aboriginal and Torres Strait Islander Histories and Cultures content is also embedded into our <u>themed activity matrices</u>.</p>
<p>B1.5 We have used our biodiversity audit data to complement our biodiversity education program.</p>	<p>Using waterbug data and habitat survey scores to inform, inspire and track success of the biodiversity education program.</p>

C Whole school community engagement	
C1 Policy and reporting	
RSS action	RD activity
C1.1 We have communicated our biodiversity activities, including progress made to improve our biodiversity, to our school community.	Sharing River Detectives learnings/data at assembly, in the school newsletter, on the facebook page or in the school foyer.
C1.2 We have completed at least one school learning story that celebrates our biodiversity achievements and shared this with our school community.	As above, sharing biodiversity data, news of a River Detectives incursion/excursion, or on-ground achievements on school website, school or community facebook pages, in the school newsletter. The program shares these stories in our reporting. <u>Stories of Change</u> are written about one school in each region annually. These are published and shared widely.
C1.3 We have run school events that support, improve and maintain biodiversity.	Running events at school, at the waterway site or within the catchment for National Schools Tree Day, the Aussie Backyard Bird Count or the Australian Pollinator Count.
C2 Student and parent leadership	
RSS action	RD activity
C2.1 We have involved students in the development of our water education and conservation program.	River Detectives is a flexible program. It starts with the three, core citizen-science activities then students and teachers come up with questions, wonderings, inquiries and different directions to head with the program. There may be examples of students directing the way the program is run in the school.
C2.2 We have a student action team that contributes to the implementation of the Biodiversity Improvement Annual Action Plan and coordinates biodiversity related activities across the school.	Students action teams taking responsibility for conducting waterbug sampling or habitat surveys and uploading the data. Student action teams championing waterways and catchments in the school and wider community eg posters, signs, presentations and on-ground activities.
C3 Community and communication links	
RSS action	RD activity
C3.1 We have collaborated with our local council and/or water authority to develop and participate in biodiversity related projects within the school and/or wider community.	Liaising with local water authorities/Catchment Management Authorities to participate in the program. Linking with other CMA projects to learn more about waterway / catchment health and restoration. Beyond this, participating in: <ul style="list-style-type: none"> • National Tree Day • Birdlife Australia's Backyard Bird Count • Odonata's Great Australian Wildlife Search

	<ul style="list-style-type: none"> • Australian Pollinator Count • Melbourne Water's Frog Census
C3.2 We have actively participated in local biodiversity related activities.	<p>Enjoying a River Detectives incursion or excursion to learn about biodiversity.</p> <p>Collaborating with the local Landcare group or council (even angling group or Lions Club) to help with revegetation of river reserves, propagating plants for riverine habitat, weed control, installing nest boxes.</p>
C3.4 We have given presentations about our school's biodiversity programs to other schools and/or organisations.	Presenting about River Detectives at a Kids Teaching Kids event, at the ResourceSmart Schools Awards, in webinars and at community events.
C3.5 We have received support for biodiversity related projects from local, state and federal governments, local businesses and local friends' groups.	Accessing grants for projects eg. Junior Landcare Grants. Working with Landcare / Friends Of groups to complete on-ground projects or getting support from local nurseries or Men's Sheds to increase riverine habitat.

ResourceSmart Schools Waste Module	
A Workplace and operational	
A1 Current status and research	
RSS action	RD activity
A1.2 We have undertaken a litter audit at our school	Studying urban stormwater using this themed <u>activity matrix</u> then measuring litter at the school to minimise it's impact on waterways.
A2 Preparation and planning	
RSS action	RD activity
A2.2 We have completed staff professional development on waste, litter and associated themes.	<p>Participation in annual sessions run by RD coordinators:</p> <ul style="list-style-type: none"> • <u>Introductory PD: water quality testing procedures, the program and website</u> • Macroinvertebrate Sampling PD: how to identify waterbugs and run a waterbug session with students • <u>Ask The Expert webinars</u> • School incursions • Project Prattles (NC region only)
A2.3 We have applied for waste reduction related grants, awards or competitions.	Accessing grants eg. Junior Landcare grants to address litter issues if the school is adjacent to a wetland or waterway. Nominating for a RSS Award with River Detectives initiatives to improve waterway health as an integral feature.
A2.4 We have waste and litter related signage throughout the school.	Studying urban stormwater using this themed <u>activity matrix</u> then installing signage to highlight



	the connection between litter, school stormwater pits and the local waterway.
A3 Food Waste	
RSS action	RD activity
A3.2 We have implemented strategies to reduce 'lunchbox litter'.	Studying urban stormwater using this themed activity matrix then making a commitment to reduce lunchbox litter as a potential pollutant of nearby waterways.
A6 Other recycling and reuse	
RSS action	RD activity
A6.1 We have recycling collection containers in various locations around the school to collect materials such as cans, bottles and plastic containers.	Studying urban stormwater using this themed activity matrix then implementing collection containers to reduce stormwater pollution travelling from the school to the local waterway.
A7 Litter	
RSS action	RD activity
A7.1 – A7.6 All actions in this section are linked to the adjacent RD activity . . .	Studying urban stormwater using this themed activity matrix then making a commitment to do all these actions to reduce stormwater pollution travelling from the school to the local waterway.
B Learning and teaching	
RSS action	RD activity
B1.2 We have ensured that our waste education curriculum documentation is linked to the current mandated curriculum.	Linking River Detectives activities with relevant parts of the Victorian curriculum eg. VCGGK096 "Environmental and human influences on the location and characteristics of places and the management of spaces within them", Geography / Levels 5 and 6 / Geographical Knowledge / Factors that shape places and influence interconnections.
B1.3 We have included authentic, immersive, hands-on learning opportunities in our waste education program.	Participation in the hands-on citizen science of water quality testing , macroinvertebrate sampling , habitat surveys and Pesticide Watch. Completing the urban stormwater activity matrix . Collaboration with a local community group eg. Landcare to get involved in litter collection or on-ground habitat/waterway restoration work.
B1.4 We have incorporated Aboriginal and Torres Strait Islander learning perspectives in the development of our waste education program.	Using the resources on our website Aboriginal Cultures River Detectives to learn how traditional owners connect with water and catchments. Aboriginal and Torres Strait Islander Histories and Cultures content is also embedded into our themed activity matrices .
B1.5 We have used our waste and litter audit data to complement our waste education program.	Noting the presence and type of litter during water quality testing and using this data to inform waste education.

C Whole school community engagement	
C1 Policy and reporting	
RSS action	RD activity
C1.1 We have communicated our waste and litter activities, including progress made to reduce our waste and litter, to our school community.	Sharing River Detectives learnings/data at assembly, in the school newsletter, on the facebook page or in the school foyer.
C1.2 We have completed at least one school learning story that celebrates our water education or conservation achievements and shared this with our school community.	As above, sharing water quality data, news of a River Detectives incursion/excursion, or on-ground achievements on school website, school or community facebook pages, in the school newsletter. The program shares these stories in our reporting. <u>Stories of Change</u> are written about one school in each region annually. These are published and shared widely.
C2 Student and parent leadership	
RSS action	RD activity
C2.1 We have involved students in the development of our water education and conservation program.	River Detectives is a flexible program. It starts with the three, core citizen-science activities then students and teachers come up with questions, wonderings, inquiries and different directions to head with the program. There may be examples of students directing the way the program is run in the school.
C2.2 We have a student action team that contributes to the implementation of the Water Conservation Annual Plan and coordinates water related activities across the school.	Students action teams taking responsibility for conducting the water quality testing each month and uploading the data. Student action teams championing waterways and catchments in the school and wider community eg posters, signs, presentations and on-ground activities.
C3 Community and communication links	
RSS action	RD activity
C3.1 We have collaborated with our local council and/or waste contractor to develop and participate in waste and litter related projects within the school and/or wider community. Also . . . other organisations.	Liaising with local council for a waste education session or to find out about their stormwater waste management – do they have litter traps, what volume do they catch and how are they managed? Speaking with a waste contractor about how litter is managed. Beyond this, participating in: <ul style="list-style-type: none"> • RMIT's Litter Trackers • DEECA's LitterWatch
C3.2 We have actively participated in local waste and litter activities.	Enjoying a River Detectives incursion or excursion to learn about litter impacts on waterways. Collaborating with the local Landcare group or council (even angling group or Lions Club) to help pick up litter, participate in Clean Up Australia Day or an Adopt-a-Roadside event.

<p>C3.3 We have shared waste and litter related ideas and activities with our school community to encourage them to be more waste wise at home.</p>	<p>Conversations between students and their families and sharing River Detectives learnings/data at assembly, in the school newsletter, on the facebook page or in the school foyer to raise awareness about reducing litter that can end up in waterways via stormwater pits.</p>
<p>C3.4 We have given presentations about our school's waste and litter programs to other schools and/or organisations.</p>	<p>Presenting about River Detectives at a Kids Teaching Kids event, at the ResourceSmart Schools Awards, in webinars and at community events.</p>
<p>C3.5 We have received support for waste and litter projects from local, state and federal governments, local businesses and local friends' groups.</p>	<p>Accessing grants for projects eg. Junior Landcare Grants. Working with Landcare / Friends Of groups to reduce litter and raise awareness of the impacts of litter on waterways.</p>

