

LEARNING in the OUTDOORS

IN URBAN ENVIRONMENTS

TOOLKIT 9



TEACHER TOOLKIT SCHEDULE

Outdoors Victoria, in partnership with the Australian Council for Health, Physical Education and Recreation (ACHPER Victoria), Environment Education Victoria (EEV), Geography Teachers Association (GTAV) and Parks Victoria (Parks Vic) will produce 15 Teacher Toolkits between 2018 and 2020. These toolkits will be delivered to the following order:

2018

- 1 Introduction to Outdoor Learning
- 2 Outdoor Learning in the Play Ground
- 3 Outdoor Learning in Water-Based Environments

2019

- 4 Outdoor Learning in Physical Education
- 5 Outdoor Learning in Art
- 6 Outdoor Learning in Geography
- 7 Outdoor Learning in Science
- 8 Outdoor Learning in Mathematics
- 9 Outdoor Learning in Urban Environments

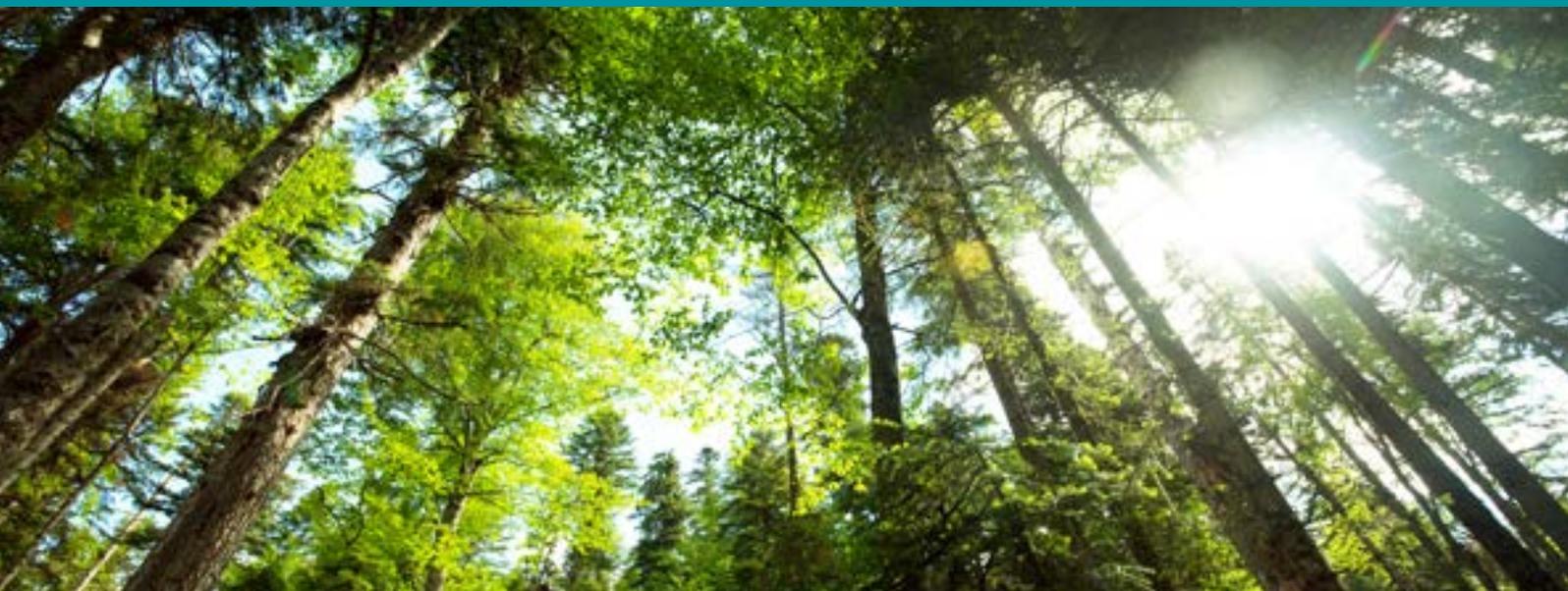
2020

- 10 Outdoor Learning in Health
- 11 Outdoor Learning in Sustainability
- 12 Outdoor Learning in History
- 13 Outdoor Learning in Reading & Writing
- 14 Outdoor Learning in Speaking & Listening
- 15 Outdoor Learning in Indigenous Activities

Outdoors Victoria, in partnership with ACHPER (Victoria), EEV, GTAV and Parks Victoria, are always interested in finding out what is occurring in the outdoors in your school.

If you are proud of a new program you have implemented or would like to be involved in, or contribute to any of the Teacher Toolkits, contact any of the above organisations. (Contact details are provided on the final page of this document)

Outdoors Victoria, in partnership with ACHPER (Victoria), GTAV, EEV and Parks Victoria, respectfully acknowledges the Traditional Custodians of the land and their Elders past and present, for the important and enduring role that Aboriginal and Torres Strait Islander peoples play in Australia regarding the land, water and sky used for learning in the Outdoors.



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This Teacher Toolkit is offered as a framework for developing your own curriculum specific ideas and activities for Outdoor Learning. It is quite flexible and should be adapted to suit your needs. Remember to note the benefits of Outdoor Learning in your teaching area, and to provide tips wherever you can for embedding Outdoor Learning into the curriculum. Include relevant research, case studies and examples that might assist teachers. Teacher Toolkit 1 Benefits of Outdoor Learning presents research that will help you argue the case for taking students out of the classroom.

Outdoor Learning in Urban Environments

This Teacher Toolkit will be looking at the opportunities for integrating Outdoor Learning in Urban Environments. In this toolkit you will find a series of activities that can be used across various year levels and student groups.

In this Teaching Toolkit, we provide sample activities which use minimal equipment and have a quick setup time. As for all activities in the tool-kits, it is important to survey your environment carefully, to ensure it is safe and appropriate for students.

Outdoor Learning activities are only limited by your imagination. We hope the activities described below will inspire you to explore further.

Do you have a great activity that you would like to share? Please feel free to email outdoorlearning@outdoorsvictoria.org.au with any suggestions. These Teacher Toolkits would not be possible without the wonderful support of many practising teachers willing to share their favourite ideas and activities.

Benefits of Outdoor Learning in Urban Environments

A study known as the BREATHE project that involved over 2500 schools found that exposure to green spaces in urban school environments resulted in a greater increase in working memory and a greater reduction in inattentiveness than children who were not exposed to increased green space. Furthermore the study found that long term exposure to the outdoors during a students early life has long lasting effects on the brain, on health and on students well being.

Embedding Outdoor Learning in Urban Environments

Integrating Outdoor Learning into the classroom is extremely important to student's knowledge and understanding of not only the natural environment but also of themselves. This is even more the case in urban environments where students do not often get as much exposure to the outdoors as their country counterparts.

This teacher toolkit provides you with ten different activities that can be tailored to all age groups in a primary school setting to promote Outdoor Learning in an urban environment.



Community Walks

Even though walking in nature is good for health and wellbeing, there are still many barriers that prevent groups in our communities from getting active. Community walks are designed to help overcome these barriers and to encourage everyone to get out and walk in nature.

Create a community walk in your local area and invite different groups of people to try it out.

Guidelines:

- Design a short, looped walk
- Dogs are welcome but need to stay on a lead
- Choose a flat, easily accessible and smooth path
- Pass some points of interest, for example, interesting plants or places to tell a story
- Proximity to toilets
- Include fixtures for people to rest
- Ensure the walk is accessible to everyone

Equipment & Materials

- Notebooks
- Rulers
- Pencils
- Sun protection

Curriculum Outcomes

- F** • Participate in guided investigations, including making observations using the senses, to explore and answer questions (VCSIS051)
- 1-2** • Perform fundamental movement skills in different movement situations in indoor, outdoor and aquatic settings (VCHPEM080)
- Use strategies to work in group situations when participating in physical activities (VCHPEM085)
- 3-4** • Participate in outdoor games and activities to examine how participation promotes a connection between the community, natural and built environments, and health and wellbeing (VCHPEP096)
- Practise and refine fundamental movement skills in different movement situations in indoor, outdoor and aquatic settings (VCHPEM097)
- 5-6** • Participate in physical activities designed to enhance fitness, and discuss the impact of regular participation on health and wellbeing (VCHPEM118)
- Demonstrate ethical behaviour and fair play that aligns with the rules when participating in a range of physical activities (VCHPEM122)

Additional Resources:

Victoria Walks - Primary School: <http://www.victoriawalks.org.au/primary/>



Plant Detectives



Plants come in many different shapes and sizes and are critical for the health of our environment. The plant detective activity allows students to investigate the adaptations and features of their local species. The activity can be conducted in an open outdoor space, with a variety of grasses, plants and trees.

In small groups, students ask students to photograph and record the features of plants they observe in their urban environment.

Examples of features include:

- leaf shape, size and texture
- flower colour
- fruit and seeds
- bark type and texture
- plant structure (ground cover, grasses, shrubs and trees)
- scent

Equipment & Materials

- Notebooks
- Pencils
- Ruler
- Camera
- Magnifying glasses (optional)
- Sun protection

Students can also observe if the plants are visited by animals in the area. Are these animals using the plants for food, shelter, nesting, resting or socialising? How do these plants interact with other elements of nature, such as the sun, wind and water?

Back at school, students can research the types of plants they observed and learn more about the importance of these plants in the environment. They might use their research and data to create a plant identification booklet for their local urban space.

Curriculum Outcomes

- F -2**
- Explore how plants and animals are grown for food, clothing and shelter (VCDSTC015)
 - Objects are made of materials that have observable properties (VCSSU044)
 - Observable changes occur in the sky and landscape; daily and seasonal changes affect everyday life (VCSSU046)
- 3-4**
- Living things can be grouped on the basis of observable features and can be distinguished from non-living things (VCSSU057)
 - Different living things have different life cycles and depend on each other and the environment to survive (VCSSU058)
- 5-6**
- Living things have structural features and adaptations that help them to survive in their environment (VCSSU074)
 - The growth and survival of living things are affected by the physical conditions of their environment (VCSSU075)

Additional Resources:

Student Rangers: Flora Explorer: <https://www.coolaustralia.org/activity/student-rangers-flora-explorer-years-4-6/>

Botanic Gardens Learning Resources: <https://parksaustralia.gov.au/botanic-gardens/schools/learning-resources/>

Create a Nature Game



Taking inspiration from the natural environment, students can create a game.

Working in small groups, ask students to use items they find in nature to create a board game, an active game or a storytelling or role-playing game. Students can take turns at teaching other groups their game and playing other groups' games.

Example games include

- Which Tree ? (In this game students are in pairs, one student of the pair is blindfolded, the student who is leading the blindfolded student leads them to a chosen tree, let the blindfolded student feel the tree and gain an understanding of the tree, walk the student back to the middle of the area, take the blind fold off and try and have them pick the tree they went too.
- Camouflage (Hide and Seek) (Students go and hide in the immediate environment, the student counting then needs to go and find the hidden students)
- Steal the Stick (One student is standing in the open space with their back to the group, the group needs to slowly move towards the student who has a stick on the ground. When the student turns around everyone needs to freeze, the aim is to pick up the stick without being tagged.

Equipment & Materials

- Natural objects found in the area
- Notebook
- Pencils

Curriculum Outcomes

- F** • Participate in play that promotes engagement with outdoor settings including aquatic and the natural environment (VCHPEP063)
- 1-2** • Perform fundamental movement skills in different movement situations in indoor, outdoor and aquatic settings (VCHPEM080) Adopt inclusive practices when participating in physical activities (VCHPEM102)
 - Participate in a range of imaginative experiences and respond through drawing, telling with familiar signs and written words or enacting with constructed action (VCASF006)
- 3-4** • Participate in outdoor games and activities to examine how participation promotes a connection between the community, natural and built environments, and health and wellbeing (VCHPEP096)
- 5-6** • Practise specialised movement skills and apply them in different movement situations in indoor, outdoor and aquatic settings (VCHPEM115)
 - Propose and apply movement concepts and strategies (VCHPEM117)

Additional Resources:

Nature Games: <https://www.ultimatecampresource.com/camp-games/nature-games/>

Indigenous Games (Yulunga)



Aboriginal Victorians have been learning and playing on Country for tens of thousands of years.

Use the websites below to find traditional Indigenous games that are played in your area. Instruct students to set up and play the game in your local urban environment.

Ask students to reflect on the area they just played the game in. Reflect on questions like:

- What would the area have looked like 10,000 years ago?
- How is the area the same or different now?
- How is the way we played this game affected by the current state of our urban environment?

Encourage students to investigate other traditional Aboriginal games played around Australia and organise kids teaching kids session where students teach their game to other students in the school.

Equipment & Materials

- Various sports equipment
- Researching device
- Playspace

Curriculum Outcomes

- F-2**
- Respond to dance, expressing what they enjoy and why (VCADAR020)
 - Respond to music, communicating their preferences and discussing where and why people in their local area make and perform music, including the music of Aboriginal and Torres Strait Islander peoples (VCAMUR024)
- 3-4**
- Perform movement sequences which link fundamental movement skills (VCHPEM098)
 - Identify how the elements of dance and production elements express ideas in dance they make, perform and view including in dances from Aboriginal and Torres Strait Islander peoples (VCADAR028)
- 5-6**
- Explore how participation in outdoor activities supports personal and community health and wellbeing and creates connections to the natural and built environment (VCHPEP113)
 - Explain how the elements of dance and production elements communicate ideas in dances from different contexts they make, perform and view including in dances by Aboriginal and Torres Strait Islander peoples (VCADAR032)

Additional Resources:

Yulunga Games: <https://www.sportaus.gov.au/yulunga>

Indigenous Traditional Games: <https://sport.nsw.gov.au/clubs/training/tig>

Colour Match



Being mindful and connecting with nature has many health benefits. Using your senses and focussing on what is happening around you will help you become more mindful and present. This can help reduce anxiety.

Whilst walking through your urban area, students can use their sense of sight to colour match natural objects with paint swatches.

Ask students to predict which colours will be harder to match and why?

Students can mark the colours they were able to find with a pencil or peg and can record their colour observations through photography.

Reflect on the colours that were easier and harder to find and discuss why. In which environments might we find it harder to find colours?

Equipment & Materials

- Paint swatches
- Pegs/pencils
- Cameras - optional

Curriculum Outcomes

- F**
 - Explore ideas, experiences, observations and imagination to create visual artworks (VCAVAE017)
 - Respond to visual artworks and consider where and why people make visual artworks (VCAVAR020)
- 1-2**
 - Explore ideas, experiences, observations and imagination and express them through subject matter in visual artworks they create (VCAVAE021)
 - Living things have a variety of external features and live in different places where their basic needs, including food, water and shelter, are met (VCSSU042)
- 3-4**
 - Living things can be grouped on the basis of observable features and can be distinguished from non-living things (VCSSU057)
- 5-6**
 - Living things have structural features and adaptations that help them to survive in their environment (VCSSU074)
 - The growth and survival of living things are affected by the physical conditions of their environment (VCSSU075)

Additional Resources:

Environmental Colour Match: <https://juniorrangers.com.au/cms/wp-content/uploads/2014/05/Enviro-Colour-Match2.pdf>

Nature Storytelling



Instruct students to find a space where they can sit and observe nature. Students are to use their observation time as inspiration for nature storytelling.

Ask the students to take the perspective of a tree, flower, animal or natural feature in the area they are observing and create a story about that natural object. They may wish to consider how the urban environment has changed over time from the perspective of the natural object.

Students can choose to write a story, construct a play or present their story in another artistic medium.

You may wish to show the picture storybook, *Window* by Jeannie Baker as inspiration.

Equipment & Materials

- Notebook
- Pencil
- Pen

Curriculum Outcomes

- F-2**
 - Participate in a range of imaginative experiences and respond through drawing, telling with familiar signs and written words or enacting with constructed action (VCASFC006)
 - Respond to texts, identifying favourite stories, authors and illustrators (VCELT170)
- 3-4**
 - Create imaginative texts based on characters, settings and events from students' own and other cultures including through the use of visual features (VCELT264)
 - Create texts that adapt language features and patterns encountered in literary texts (VCELT265)
- 5-6**
 - Create literary texts by developing storylines, characters and settings (VCELT297)
 - Create literary texts that explore students' own experiences and imagining (VCELT298)

Additional Resources:

Book: Window by Jeannie Baker (optional)

Litter Collection and Audit



Litter is waste in the wrong place.

Litter can come from different sources and people. Littering can be both intentional and unintentional.

Litter is harmful to the natural environment and it impacts our quality of life.

Organise a litter collection with students in a local urban space. Once the litter is collected, students can sort and conduct an audit of the types and amount found.

Students can extend the activity by conducting a waste and litter audit back at school, and developing a campaign to encourage their community to not litter.

Equipment & Materials

- Gloves
- Rubbish collection bags
- Worksheets
- Pencils/pens

Curriculum Outcomes

- F-2** • Everyday materials can be physically changed or combined with other materials in a variety of ways for particular purposes (VCSSU045)
- 3-4** • Describe strategies to make the classroom and playground healthy, safe and active spaces (VCHPEP095)
 - Natural and processed materials have a range of physical properties; these properties can influence their use (VCSSU060)
- 5-6** • Changes to materials can be reversible, including melting, freezing, evaporating, or irreversible, including burning and rusting (VCSSU077)

Additional Resources:

AuSSI Litter Audit: <https://www.coolaustralia.org/activity/aussi-litter-audit-upper-primary/>

Marine Debris initiative data: <https://www.tangaroablue.org/resources/clean-up-data-collection/data-sheet/>

Urban Tree Mapping



Trees play an important role in urban environments. Urban trees reduce daily temperature highs, help to prevent flash flooding, decrease air pollution, improve biodiversity and keep our urban spaces healthy.

Encourage students to create a map of their local area and plot all the trees they can find. You might extend this activity to look at different species of trees and their importance within the area.

Ask students to consider where they would add more trees to make the area more healthy and diverse. Ask questions like:

- What do urban trees need to survive?
- Where do they get their nutrients from?
- What kinds of animals use the trees for habitat?
- How can we help to care for our urban trees?

Equipment & Materials

- Grid Paper
- Ruler
- Pencils
- Camera (Optional)

Curriculum Outcomes

- F-2**
- Living things have a variety of external features and live in different places where their basic needs, including food, water and shelter, are met (VCSSU042)
 - Observable changes occur in the sky and landscape; daily and seasonal changes affect everyday life (VCSSU046)
- 3-4**
- Living things can be grouped on the basis of observable features and can be distinguished from non-living things (VCSSU057)
 - Science knowledge helps people to understand the effects of their actions (VCSSU056)
- 5-6**
- Living things have structural features and adaptations that help them to survive in their environment (VCSSU074)
 - The growth and survival of living things are affected by the physical conditions of their environment (VCSSU075)

Additional Resources:

Explore Melbourne's Urban Forest: <http://melbourneurbanforestvisual.com.au/>

Insect Diversity



Insects make up the largest and most diverse group of animals on Earth.

They play many different and important roles within ecosystems and in food webs. Insects can aerate the soil, act as pollinators, control pest species and recycle nutrients.

Ask students to investigate the abundance and diversity of insects in their local urban space. After posing their question and making predictions, students can collect data by taping a one-metre-square piece of paper to the ground and observe the insects on the paper over time.

After collecting their data, students can choose the most appropriate method to present their results. This activity could be extended to investigate the ecosystem roles of the insects that were identified.

Equipment & Materials

- A one-meter square piece of paper
- Notebooks
- Ruler
- Pencils

Curriculum Outcomes

- F-2** • Explore how plants and animals are grown for food, clothing and shelter (VCDSTC015)
- 3-4** • Types of natural vegetation and the significance of vegetation to the environment, the importance of environments to animals and people, and different views on how they can be protected; the use and management of natural resources and waste, and different views on how to do this sustainably (VCGGK082)
- 5-6** • Living things have structural features and adaptations that help them to survive in their environment (VCSSU074)
- The growth and survival of living things are affected by the physical conditions of their environment (VCSSU075)

Additional Resources:

Arthropods in your schoolyard: <https://www.inaturalist.org/guides/2159>

Backyard Buddies - Bugs & Insects: <https://www.backyardbuddies.org.au/explore/bugs-and-insects>

Traffic Graphing



People use different modes of transport to travel within and between communities. These modes of transport can have varying impacts on personal safety and the environment.

Students can investigate the diversity of transport options taken by different people in an urban space. They can collect data on the mode of transport and the number of times they observe people using those modes of transport in a given amount of time.

After collecting their data, students can choose the most appropriate graph to present their results.

Ask students to think about the environmental impacts of the most common forms of transport they observed.

This activity could be extended so that students can develop a community campaign to encourage people to travel on foot or by bicycle.

Equipment & Materials

- Grid paper
- Notebook
- Pencils
- Ruler

Curriculum Outcomes

- F-2**
- Use informal measurements in the collection and recording of observations (VCSIS052)
 - Use a range of methods, including drawings and provided tables, to sort information (VCSIS053)
 - Compare observations and predictions with those of others (VCSIS054)
- 3-4**
- With guidance, identify questions in familiar contexts that can be investigated scientifically and predict what might happen based on prior knowledge (VCSIS065)
 - Suggest ways to plan and conduct investigations to find answers to questions including consideration of the elements of fair tests (VCSIS066)
 - Use formal measurements in the collection and recording of observations (VCSIS068)
 - Compare results with predictions, suggesting possible reasons for findings (VCSIS070)
- 5-6**
- Suggest ways to plan and conduct investigations to find answers to questions including consideration of the elements of fair tests (VCSIS066)
 - Use formal measurements in the collection and recording of observations (VCSIS068)
 - Use a range of methods including tables and column graphs to represent data and to identify patterns and trends (VCSIS069)
 - Represent and communicate observations, ideas and findings to show patterns and relationships using formal and informal scientific language (VCSIS072)

Additional Resources:

Counting Cars: mathinenglish.com/PWkS/grade3/CountingVehiclesP3.pdf

Conclusion

The urban environment should not pose any additional difficulty in integrating students into the outdoor environment. From this tool kit, ten activities can be performed in any urban environment.

As educators we are continually seeking development. If you have feedback or would like to share your experiences or activities please add a comment on the FUSE Webpage or email outdoorlearning@outdoorsvictoria.org.au and we will review it and get back to you as soon as possible.

Acknowledgments

This teacher toolkit could not have been created without the work and dedication of educators throughout Australia. Educators often need to look at their local environment and create activities that suit their needs for that day, we thank you for sharing your activities and hope others reading this document can utilise your creative thinking and implement these activities.

Furthermore, the following organisations and staff have assisted in the creation of this document including;

- Outdoors Victoria
- ACHPER (Victoria)
- Environment Education Victoria
- Geography Teachers' Association of Victoria (GTAV)
- Parks Victoria

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