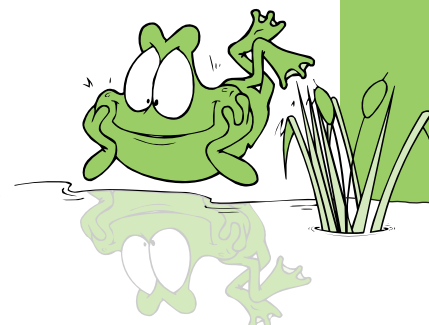




The Arts - Contents

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From Your Street To Your Creek



FOCUS

- How does stormwater get so dirty?
- What are its impacts and can we make a difference?

OBJECTIVES

- Perform a role in a class play
- Identify stormwater pollutants and their sources

BACKGROUND

Stormwater can travel a long path before it finally discharges in a waterway. Along the way, the water picks up pollution from many sources in the catchment. This story outlines just one possible scenario for the journey of the water.

NOTES

Use film canisters to contain pollutants, and a wide mouthed aquarium or jar to represent stormwater flowing in a waterway. You or the students can collect the materials. You can modify to activity to suit your class size by having multiple canisters for each 'theme'.

LEARNING TASKS

1/ Read the Teacher Task Card as background for this activity.

Code	Theme
A	Fresh Water
B	Parkland
C	Suburban Yard
D	Construction Site
E	Shopping Centre
F	Car Drips
G	Roadside litter
H	Stormwater Channel
I	Aquatic Plants and Animals

eg.



2/ Half fill the aquarium with rain / tap water and place on display.

3/ Label each canister with the theme name and the pollutant type.

4/ Hand one to each student with instructions for their participation. You may use several canisters for each theme.

5/ Read Drip's story to the students. As the themes are mentioned, student(s) empty relevant canisters into the jar.

Discuss the following questions as Drip travels to the waterway:

- How does pollution impact on water quality, plants and animals?
- Are there sources of pollution near your school?
- How could you prevent pollution from happening?

CSF II LINKS

THE ARTS

4.1 / 4.2 / 4.3 Drama

SCIENCE

4.1 Biological

MATERIALS

- 'From Your Street To Your Creek' Teacher Task Card
- Aquarium, half filled with water
- 30 film canisters
- Sticky labels
- Pollution including:
 - A clean water
 - B Native leaves, grass or twigs
 - C Oil, detergent, fertiliser, grass, leaves, fake 'animal poo', bark
 - D Dirt, paint, cement or timber
 - E Food scraps, bags, food wrappers or styrofoam
 - F Engine oil or grease
 - G Ring pulls, bottle tops, takeaway wrappers or cigarette butts
 - H Catalogues, grass
 - I Cards or models of yabbies, dragonflies, frogs, fish, reeds

EXTENSION

Involve junior school students in this activity, with the help of your students.

ASSESSMENT

Could students describe personal observations about the drama and draw parallels between concepts explored and those that occur in natural environments?



From Your Street To Your Creek - Teacher Task Card

Drip The Drop

Once upon a time, storm-clouds gathered over _____ (your town). A dark grey thundercloud thundered and grumbled and Drip the Drop fell to earth. **Add Fresh Water Canister/s.**

Drip the Drop rolled into a city park. Drip was scared by some kangaroos, so he ran and hid in some bushes. Some gum leaves and grass stuck to Drip when he was hiding. **Add Parkland Canister/s.**

Later, Drip began to run downhill towards some houses. He moved through a backyard near some pet dogs, over the lawn and through a garden bed. Drip the Drop rolled over the top of a concrete driveway where a car was being washed. He flowed through a fertilised front yard and picked up some lawn clippings and autumn leaves. **Add Suburban Yard Canister/s.**

What lay in front of Drip the Drop now? It looks like a construction site. Oh no, more dirt and pebbles are lying on the ground. URK! Lots of waste materials are just lying around and toxic chemicals are carelessly left on the ground. **Add Construction Site Canister/s.**

Drip the Drop made it to the shops. Here he found some food scraps plastic bags and food wrappers that shoppers had dropped. Styrofoam from a delivery truck was also lying on the ground. **Add Shopping Centre Canister/s.**

Drip ran uncontrollably down onto a wide road. All that could be seen were cars rushing by. Drip was caught underneath a car and dropped back onto the road where he collected some invisible deadly pollution, including oil, grease and petrol. **Add Car Drips Canister/s.**

Yuk! To get away from the traffic, Drip headed for the gutter, only to find soft drink cans, juice bottles, cigarette butts and take away food wrappers blocking his way. **Add Roadside Litter Canister/s.**

Suddenly, Drip the Drop saw a terrifying sight . . . the entrance to a street drain. Other raindrops were pouring in from all over the town. With a swoosh and a sloop, Drip was sucked into the street drain, and through a pipe to a wide stormwater channel. There were many catalogues that had blown out of mailboxes as well as garden clippings choking the drains. **Add Stormwater Channel Canister/s.**

At last, after many twists and turns, the stormwater drain led Drip the drop to a peaceful creek. Here, some aquatic plants and animals were happily feeding, playing and resting. **Add Aquatic Plants and Animals Canister/s.**

'Help, help', called the animals living in the water. They dived away from Drip the Drop in fear.

'What's the matter?' said Drip the Drop.

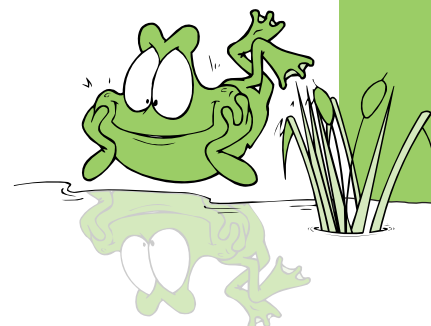
'It's not your fault, but you have become too dirty for us to live in', said the animals.

'Look at me, I'm a mess', wept Drip the Drop.

After a moments silence, the animals called out together.

'Don't despair, everyone in the community can help you Drip and us . . . by reducing pollution and improving quality of stormwater'.

The End.



FOCUS

- How can 'rubbish' be saved and reused?
- What sounds and musical instruments can be made?

OBJECTIVES

- Use pre-collected bottles, containers, etc to make and use stringed, wind and percussion instruments

BACKGROUND

One component of stormwater management is recognising potential uses of what is otherwise waste. As well as recycling paper and plastics into new products, many wastes can be reused. Plastic shopping bags can be reused at the grocery store, while jars can be used for jams and sauces. This activity has an alternate reuse option for wastes - as musical instruments.

NOTES

Request students to wash and save used containers from home to bring to class for this activity. Containers may include glass bottles, plastic tubs, cardboard packets and tins. Other useful items include icy pole sticks, rubber bands, string, straws.

LEARNING TASKS

- 1/ Discuss a variety of musical instruments, the categories they belong to, the sounds they make and how those sounds are made. Highlight the materials used and how these affect sound ie. length, width and tightness of strings, solid / hollow objects**
- 2/ Discuss the wide variety of materials collected from home / the art room and their many possible applications.**
 - Allow time for students to experiment with objects and the sounds they make, to share ideas with peers and formulate a design plan
- 3/ Encourage students to construct and decorate a musical instrument and give it a name. They can explore the variety of sounds, volumes and pitches that can be created.**
 - Students should be given the opportunity to showcase their invented instrument, explaining its construction and giving a demonstration
- 4/ In small groups or as a whole class, perform original instrumental pieces to a beat or to portray a mood.**
 - Your class could write a Stormwater / Pollution Rap using their instruments in the performance

CSF II LINKS

THE ARTS

- | | |
|-----------------|------------|
| 4.1 / 4.2 / 4.3 | Music |
| 4.1 | Technology |

MATERIALS

- Collected household items
- Glue / sticky tape for construction
- Gum nuts, sand, leaves, etc.
- Paint if applicable
- Songs for musical accompaniment

EXTENSION

Songs or musical creations could be performed for other classes or at an assembly attended by parents and community members.

ASSESSMENT

Could students evaluate the effectiveness of their own instrumental compositions?
Did students create instruments which have different tones / pitches?



FOCUS

- Can 'rubbish' be saved and reused?
- What messages can 'junk' express through art?

OBJECTIVES

- Use pre-collected 'rubbish' to create artistic models
- Express ideas about stormwater pollution

BACKGROUND

Preventing stormwater pollution goes hand in hand with the message of Reduce, Reuse Recycle. If we stop pollution from entering gutters and drains in the first place, we can help keep our waterways clean and healthy. Much of what is often considered as rubbish can be a very valuable resource if reused. Art provides an outlet for the creative use of 'junk'.

NOTES

Request students to save and wash used containers from home to bring to class for this activity. Containers may include glass bottles, plastic tubs, cardboard packets and tins. Other useful items include icy pole sticks, rubber bands, string and straws. You may wish to have controls on the materials eg. no broken glass.

LEARNING TASKS

1/ Discuss the many facets of stormwater including it's sources, pollutants, destination and impact on waterways, animals, plants and humans.

2/ Highlight the importance of reducing pollution and the responsibility we all have.

- Discuss the way the preparation for this activity has already demonstrated one very effective way students can make a difference ie. in reusing waste products

3/ Direct students to plan, construct and decorate a model or collage using the many pre-collected materials available. Pieces should express an issue relating to stormwater.

Ideas may include:

- Aquatic plants or animals
- Stormwater pollutants
- A stormwater drain or gutter
- A source of pollution - roadway, carpark, industry, house
- A waterway

Students may work on their own or in groups and products may be a stand-alone piece or combine to create a large scene.

- Imagine how fantastic a model or collage of an urban catchment area would be!

CSF II LINKS

THE ARTS

4.1 / 4.2 / 4.3 / 4.4

Art

MATERIALS

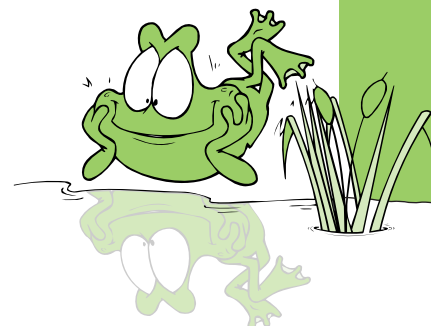
- Clean household 'waste' materials (see notes)
- Glue / sticky tape
- Paint and art materials

EXTENSION

Contact your local Council or Catchment Management Authority to suggest giving a presentation to staff and having your artwork on display.

ASSESSMENT

Could students develop art that communicates experience and observation of their environment? Did they demonstrate skills and techniques individually and collaboratively?



FOCUS

- How can we express stormwater scenes?

OBJECTIVES

- Explore moods, actions and situations through mime
- Adopt the identity of living and non-living things
- Use body language, facial expressions and gestures

BACKGROUND

Urban stormwater has an impact on many components of a healthy stream. The pollution can harm humans, plants and animals, which depend on the waterway for their life. Understanding the impacts of the pollution can help generate enthusiasm for undertaking action to improve water quality.

NOTES

The following list of drama ideas can be implemented in a variety of ways depending on the dynamics of your class, space available and your students' previous drama experience.

CSF II LINKS

THE ARTS

4.1 / 4.2 / 4.3

Drama

LEARNING TASKS

1/ Utilise a large open space to allow creative drama pieces to be explored by students.

2/ The following are prompts to explore ways of moving and performing to express moods, actions and situations. Each should be performed as mime to encourage students to use alternative methods of communicating. Refer to the Teacher Task Card for further details of each activity.

Activity A

Students choose a scenario which they mime

Activity B

Start with an empty space, one by one each student enters the scene as an object (living or non-living) and freezes until an entire scene has been created. Later bring the whole scene to life.

Activity C

The class create a scene that portrays a healthy waterway. When this is complete, begin altering the scene, adding the other half of the class as unhealthy elements including litter, oils, garden debris.

MATERIALS

- *'Dramatic Stormwater Scenes'* Teacher Task Card
- Various costumes or pieces of fabric to assist in expression
- Open Space

EXTENSION

You could have scenes created by half the class with the other half making decisions about how to alter the scene. Perhaps a student could commentate / narrate the scene?

ASSESSMENT

What did students' chosen roles demonstrate about their understanding of stormwater pollution? Were they able to predict and portray how their role may change?



Dramatic Stormwater Scenes - Teacher Task Card

Activity A

Students should choose a scenario from the list below to mime. This will form a prompt to explore ways of moving and behaving to express moods, actions and situations. Miming will encourage students to use alternative methods of communicating.

- Swimming in a clean, waterway
- Swimming in polluted water
- Stepping over rubbish on a footpath
- Kicking through knee-deep autumn leaves
- Pouring oil down a gutter
- A plant in a creek being covered with silt
- Receiving a letter announcing that your school is the 'greenest' & 'tidiest' in the state
- A platypus caught in a plastic bag
- Wading through sludge in water
- Raking up leaves / picking up rubbish
- Washing a car with a bucket
- Visitor looking at a polluted river
- A visitor looking at a clean, pristine river
- A piece of rubbish washing into and through a stormwater drain
- A fish gasping for air in oxygen starved waters



Activity B

Start with an empty space, one by one each student enters the scene as an object (living or non-living) and freezes until an entire scene has been created. Consider creating a scene with multiple levels ie. on the floor, crouching or standing. The scenes could include:

- Town
- Household
- Service Station
- Waterway
- Schoolyard
- Forest
- Shopping Centre
- Factory

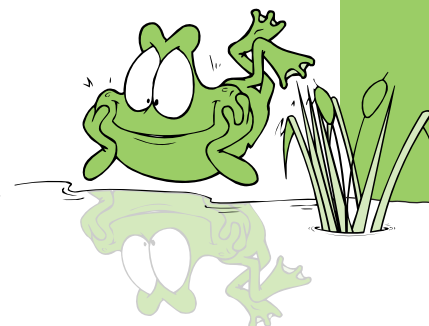
Activity C

The class could create a scene that portrays a healthy waterway. Use the list below to generate characters in the scene. When the scene is complete, the teacher could give a cue for the scene to come alive and for a short time the trees could sway, river flow, frogs jump and birds feed. Given a cue, the scene must freeze again.

- Part of a river
- Tree
- Young seedling
- Kangaroo
- Native grasses
- Waterbirds
- Platypus
- River bank
- Frogs
- Stormwater drain
- Waterway user
- River bed

Begin altering the scene, adding the other half of the class as pollution to make the waterway unhealthy. Students demonstrate how these changes will affect the scene and their role.

- Litter
- Cigarette Butts
- Leaves
- Oils
- Dog
- Dirt
- Weeds
- Polluters
- Factory Waste



FOCUS

- Where are the sources of pollution?
- What types of stormwater pollution are occurring?

OBJECTIVES

- Take photographs of sources and types of pollution
- Present them in an effective manner

BACKGROUND

Stormwater is gathered from surfaces such as roads, roofs, footpaths, vacant land, house yards, driveways and carparks. Pollutants may include litter, chemicals or organic items that are blown, washed or deposited in gutters and drains. Some pollution sources are obvious, such as litter in drains, others are less obvious, like an unprotected stockpile on a nature strip.

NOTES

The following activity is very flexible with many suggested learning tasks provided. School resources, available time, location of school, experience of students and your own confidence will all influence the choices made. Your participation in the field trip may determine how this is conducted.

LEARNING TASKS

1/ Discuss with students key elements of successful photography. Use stormwater photos found on the Environmental Education Resource CD as examples.

2/ Direct students to take images of a variety of stormwater pollutants, their sources and impacts.

Images may include:

- Overflowing school bins
- Litter lying in public places
- Leaf litter banked up near a stormwater side entry pit
- Oil marks on roads or driveways
- Pollution near or emerging from stormwater outlet points
- Weeds or litter in waterways

3/ Students should collect images during class time, during the field trip of your local area, see Welcome 'Fieldtrip Timetable' p.7, or as a homework task.

4/ Encourage students to take isolated images and sequences to tell a story with pictures eg. the path a piece of litter might take.

5/ Discuss with students ways to present their photos effectively. Display photos as a photo board or image gallery within your school or in a public place.

CSF II LINKS

THE ARTS

4.1 / 4.2 / 4.3 / 4.4

Art

MATERIALS

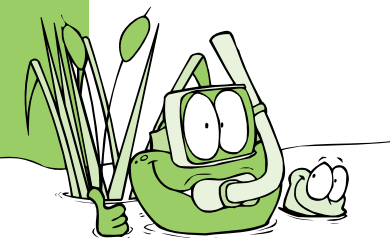
- Photos on the CD (in folder)
- Camera/s - digital, disposable, automatic
- Materials for display of photos - black card, pinboard, computer

EXTENSION

Photos could be used as visual stimulus for writing creative stories, letters to those responsible for pollution, poetry, articles, information reports, as a powerpoint display or for advertising campaigns.

ASSESSMENT

Did students' photographs represent ideas and experiences of their local environment? Did they experiment with media elements to maximise impact?



FOCUS

- Use a poster to communicate stormwater messages

OBJECTIVES

- Design and produce a poster about a stormwater issue
- Create an action plan to use as an educational tool

BACKGROUND

There are many messages associated with improving stormwater quality. Students can develop messages they are passionate about. Promotion of links between actions and effects is a key element of stormwater management. Utilising posters provides a good medium for highlighting issues to a wide audience.

NOTES

This activity is best completed at the conclusion of the Program. Students will by then have a solid grasp of stormwater processes and management. Armed with this knowledge, they will have the experience and a passion to reduce pollution.

LEARNING TASKS

- 1/ Discuss with students the design of a poster to relay stormwater messages.**
- 2/ Encourage students to choose their medium or take the opportunity to 'teach' a particular technique. Choices may include:**
 - Simple line drawings with pencils, textas or crayons adding colour
 - Water colour paintings
 - Montage of magazine, newspaper pictures and text
 - Torn paper pictures using tissue paper, scrap cover paper
- 3/ Lead a discussion to establish messages, audience, layout and use of slogans students are interested in pursuing. Messages may be in relation to:**
 - Reducing, Reusing, Recycling or Composting
 - Raking leaves, picking up dog droppings, washing cars
 - Reducing littering in schools, shopping areas or along roadsides
 - Best practice on building sites
 - The fact that stormwater runs untreated directly into waterways
- 4/ Assist students to create an action plan including:**
 - Display posters at a variety of locations or making a calendar from the designs

CSF II LINKS

THE ARTS

- | | |
|-----------|-------|
| 4.1 / 4.2 | Art |
| 4.1 | Media |

MATERIALS

- Pencils, textas, crayons
- Water colour paints
- Magazines, newspapers
- Tissue / scrap paper
- Poster paper
- Poster examples

EXTENSION

Students to organise a poster competition within the whole school. Follow up on the implemented action plan, evaluating the effectiveness of posters in altering public attitudes.

ASSESSMENT

Were students able to communicate a specific message or issue in a clear manner to maximise its impact? Did their message correlate with the chosen target audience?

