PLASTIC FREE JULY

WASTE WISE SCHOOLS AND WESTERN METROPOLITAN REGIONAL COUNCIL (WMRC) EARTH CARERS

PLASTIC FREE JULY ACTIVITY GUIDE

Foundation to Year 2 | Year 3 to Year 6
Secondary School Leadership Package

THE GOVERNMENT OF WESTERN AUSTRALIA

WASTE AUTHORITY
WA...TOO GOOD TO WASTE

EARTH CARERS
LIVING WITH LESS WASTE
WESTERN METROPOLITAN REGIONAL COUNCIL

WRIGLEY
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ACKNOWLEDGMENTS

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TABLE OF CONTENTS

INTRODUCTION 1

FOUNDATION TO YEAR 2 ACTIVITIES 3

Plastic and marine life 4

Single-use plastic 6

What's in the bin? 8

Waste free lunches 11

YEAR 3 TO YEAR 6 ACTIVITIES 13

Movement of plastic and marine life 14

Single-use plastic 17

What's in the bin? 20

Waste free lunches 23

Pledges 26

SECONDARY SCHOOL LEADERSHIP: CAN YOUR SCHOOL REDUCE PLASTIC USE? 27

Pledge forms 37

Waste audit results 38

PLASTIC FREE JULY

INTRODUCTION

Plastic Free July is a simple idea developed in 2011 by the Western Metropolitan Regional Council (WMRC) Earth Carers program. It aims to raise awareness of the amount of plastic in our lives by encouraging people to eliminate the use of single-use plastic during July each year.

Waste Wise Schools Program, in collaboration with the WMRC Earth Carers, has developed a Plastic Free July (PFJ) activity guide to help schools raise awareness about the environmental impacts of single-use plastic and how to take action. The PFJ activity guide is linked to English, Mathematics and Science in the Australian Curriculum. It is divided into three sections: Foundation to Year 2, Year 3 to Year 6 and a secondary school leadership package. Each section includes four activities teachers can complete according to their own planning timetable. The secondary school leadership package guides students through running a campaign to encourage as many students, teachers and family members to reduce the amount of plastic they use.

Single-use plastic includes all plastic packaging that's intended only to be used once and then discarded. Refusing all single-use plastic can seem daunting, so the curriculum linked activities focus on reducing the top four - plastic bags, plastic bottles, straws and plastic lids.

Reducing waste by refusing single-use plastic fits in to the avoidance section of the Waste Hierarchy. Avoiding the production of single-use plastic is the most effective solution in comparison to reuse, reprocessing or recycling as it does not require any energy or resource input. Single-use plastics are often difficult to recycle so these can end up in landfill where they may never break down. Avoiding single-use plastic in the first place is the best outcome for our environment.

This Plastic Free July activity guide was created to support the campaign established by the WMRC. The Plastic Free July website provides great practical ideas and resources to encourage behaviour change in the school and community. This includes making pledges, how to live plastic free, holding a plastic free event and case studies. Although the campaign is in July, teachers can use the activity guide anytime to send the message on how to eliminate single-use plastic. For more information visit the website at http://www.plasticfreejuly.org/.

> 'Think about it. Why would you make something that you're going to use for a few minutes out of a material that's basically going to last forever, and you're just going to throw it away.'
>
> From the movie *Bag It*

WE NEED TO CHANGE OUR HABITS AND WHAT A BETTER PLACE TO START THAN WITH OUR STUDENTS.

Waste Wise Schools, a program of the Waste Authority, works with Western Australian schools on educational strategies for reducing waste to landfill by implementing the 3Rs, reduce, reuse, recycle – while developing positive environmental values in students and the whole school community.

The program encourages schools to model responsible environmental behaviours through hands-on learning experiences that are linked to the Australian Curriculum. Visit the website at http://www.wasteauthority.wa.gov.au/programs/waste-wise-schools/

The WMRC's Earth Carers Program educates, advises and facilitates environmentally sustainable practices and behaviours among residents in Perth's western suburbs. It provides waste and recycling education such as setting up worm farms and composting. Free Earth Carers Courses are held regularly for western suburbs residents giving them the knowledge and skills to confidently live with less waste. Visit the website at http://www.wmrc.wa.gov.au/projects-innovations/earth-carers-programme/

FOUNDATION TO YEAR 2 ACTIVITIES

Art project by Coolbinia Independent School.

1. PLASTIC AND MARINE LIFE

AIM

Students learn about how the plastic items they use in everyday life impact marine animals and the environment.

AUSTRALIAN CURRICULUM LINKS

English; Language

Language for interaction (ACELA1787) Year 1, (ACELA1463) Year 2

Expressing and developing ideas (ACELA1437) (ACELA1437) F, (ACELA1451) Year 1, (ACELA1470) Year 2

English; Literature

Literature and context (ACELT1581) Year 1

Responding to literature (ACELT1783) F, (ACELT1582) (ACELT1583) Year 1, (ACELT1589) Year 2

Examining literature (ACELT1584) Year 1, (ACELT1591) Year 2

English; Literacy

Interacting with others (ACELY1646), (ACELY1784) F, (ACELY1656) Year 1, (ACELY1789) Year 2

Interpreting, analysing and evaluating (ACELY1660) Year 1, (ACELY 1670) Year 2

Creating texts (ACELY1651) F, (ACELY1661) Year 1, (ACELY1671) (ACELY162) Year 2

RESOURCES

Plastic bag and straw to show class

Book *All the Way to the Ocean* by Joel Harper or access to online resource

http://www.allthewaytotheocean.com/about.html

ACTIVITY

1. Ask students to think of examples of plastic objects they use in everyday life. Choose volunteers to give examples and write on the whiteboard. You may need to give clues.

2. Circle or prompt for plastic bag and straw. Show students examples and discuss:
   - Who has seen these items on the ground?
   - Where? At school? The shop? How do they get there?
   - What happens to them if they are not put in the bin or recycled?
   - Could these items harm the environment? How?

All the Way to the Ocean by Joel Harper.

3. Ask students if they think plastic from their school lunches can also end up in the environment? Where?

4. Read *All the Way to the Ocean* by Joel Harper. You can access information and images relating to the book at http://www.allthewaytotheocean.com/about.html

5. Discuss the features of the book such as settings and how the plot develops (Years 1 and 2).

6. Ask students what they think a dilemma is and use and give examples from the book. Discuss new vocabulary used (Year 2).

7. Ask students to work in pairs and share a personal experience of seeing plastic rubbish at the beach or in their neighbourhood. How did these experiences make them feel? Share responses (Foundation and Year 1).

8. Discuss the characters in the book and ask students to:
   - Compare opinions about the characters.
   - Make connections between the story and students own experiences (Year 2).

9. Students will share what they have learned about how plastic harms the environment by:
   - Imaginatively recreating the story by drawing a chosen scene on a poster (Foundation).
   - Creating a short informative story and apply new vocabulary (Year 1).
   - Creating a short persuasive text using appropriate language features (Year 2).

SOME PLASTICS CAN BE RECYCLED BUT SOMETIMES THEY GO TO LANDFILL OR END UP IN OUR ENVIRONMENT. BEST TO AVOID!

2. SINGLE-USE PLASTIC

AIM

Students will learn about single-use plastics, how they impact the environment once they are discarded and use role play help them think of solutions.

AUSTRALIAN CURRICULUM LINKS

English; Language

Language for interaction (ACELA1429) F, (ACELA1787) Year 1, (ACELA1444) Year 1, (ACELA1463) Year 2

Expressing and developing ideas (ACELA1451) (ACELA1453) Year 1

English; Literature

*Responding to literature (*ACELT1783) F, (ACELT1582) (ACELT1583) Year 1, (ACELT1589) Year 2

English; Literacy

Interacting with others (ACELY1646) F, (ACELY1656) Year 1, (ACELY1789) Year 2

RESOURCES

Access to Plastic Planet Youtube video
http://www.youtube.com/watch?v=73sGgmZoMBQ

Plastic drink bottle and reusable drink bottle

Plastic bag and cloth bag

Disposable cup and reusable cup

Plastic straw and reusable straw (bamboo or steel) or encourage not using a straw

ACTIVITY

Amy uses curtains to make her own bags.

1. Model drinking out of a disposable plastic drink bottle or a cup with plastic lid and throw it in the bin.

2. Discuss with students:
   - How many times did it get used?
   - Where do they think it goes?
   - What will happen if we keep using things once and then throw them away?

3. Watch Plastic Planet http://www.youtube.com/watch?v=73sGgmZoMBQ

4. Some questions that you can ask students to think about:
   - What did the girl use for her groceries at the shop? (Plastic bags, lots of packaging).
   - Why is the girl sad when she gets home? How do we know?
   - What happened to the plastic bags and bottles?
   - Did it affect the animals and marine life? How?

5. Explore different ways of expressing emotion. Ask students how the movie made them feel. Write down the words and discuss new vocabulary (Year1).

6. Discuss the type of choices the girl made:
   - How do we know she did the right thing?
   - What body language did she use?
   - What were some facial expressions of girl and her family?

7. Brainstorm with students what sort of plastic things are only used once then thrown away. Discuss of examples from the video. Write four items on the white board 1) Plastic bags 2) Plastic straws 3) Disposable cups 4) Plastic water bottles.

8. Brainstorm alternatives to disposable plastic and record under each heading:
   - Could they just say 'no thank you' to demonstrate 'refuse'?
   - What could they use instead of a straw? Their lips.

9. Divide class in to four groups and assign a single-use plastic category to each group. Give each group the plastic item and a reusable alternative from the resource list.

10. Each group will present a role play to the class to (express personal responses) show how they feel using each item. Encourage audience skills and presentation skills.

REMEMBER TO ALWAYS PUT YOUR REUSABLE SHOPPING BAGS BACK IN THE CAR.

3. WHAT'S IN THE BIN?

AIM

A bin audit is used to discover how much and what kind of items are thrown away at school. Students can learn about which items are made from plastic and how to reduce the amount of plastic thrown away by 'refusing, reusing and recycling'.

AUSTRALIAN CURRICULUM LINKS

Science; Science Inquiry Skills

Questioning and predicting (ACSIS014) F

Processing and analysing data and information (ASSIS233) F

Evaluating (ACSIS213, ACSIS041) Years 1-2

Communicating (ACSIS012) F

Mathematics; Number and Algebra

Patterns and Algebra (ACMNA005) F

Mathematics: Statistics and Probability

Data representation and interpretation (ACMSP263, ACMSP050) Year 1-2

RESOURCES

Bins set up to collect school rubbish until after lunch

Newspaper or tarpaulin to tip rubbish onto

Tongs or gloves to sort rubbish

Whiteboard or Maths workbook to record data

ACTIVITY

1. Set up special bins in the classroom and junior outdoor play area until after lunch time to collect a sample of what is thrown away at school.

2. In the afternoon spread out contents of the bins on sheets of newspapers or a large tarpaulin. This could be inside the class on tables put together.

3. Students observe the items and discuss:
   - What items look similar?
   - How could we sort the items? For example fruit, cling wrap, juice boxes etc.
   - How can they be classified? For example food scraps, plastic, cardboard.

4. Use the classifications decided by the students to write a label for each category and display on the tarpaulin or plastic sheet.

5. Ask volunteers to divide the rubbish into the correct classifications. They need to use tongs or rubber gloves.

6. As a class count and record how many objects are in each pile. Use tallies to record the data in a class table (F-Year 1).

7. Students in Year 2 can write the headings in their Maths book and count the items in each pile. Use tallies to record the data. They can work in pairs.

8. Looking at the data collected as a class discuss:
   - Which pile is the biggest? Why?
   - What kind of items are in the biggest plastic pile?
   - How can the plastic pile be made smaller?

Waste audit at Derby District High School.

9. Students draw the number of items in the biggest plastic pile, for example cling wrap or plastic sandwich bags, and a reusable container. Make a comparison to show which creates more rubbish. Write a sentence to describe what they have drawn (Year 2).

10. Discuss refuse, reuse and recycle. When could they refuse plastic? For example, say no to plastic bags and straws.

11. Write these examples down and have students create their Plastic Free July pledges. They can design their own pledges or templates are at the back of the activity guide. Display around the classroom for parents to see.

Waste free lunch posters at Forrestfield Primary School.

I pledge to bring a reusable water bottle.

4. WASTE FREE LUNCH

AIM

Students will learn why packaging is used in their lunch boxes and examples of reusable alternatives their families can use instead of single-use plastics.

AUSTRALIAN CURRICULUM LINKS

Science; Science Understanding

Chemical Science (ACSSU003) F

Science; Science Inquiry Skills

Questioning and predicting (ACSIS014) F, (ACSIS025, ACSIS037) Years 1-2

English; Language

Expressing and developing ideas (ACELA1435) F, (ACELA1451) Year 1, (ACELA1470) Year 2

English; Literacy

Interacting with others (ACELY1657) Year 1, (ACELY 1666) Year 2

Interpreting, analysing, evaluating (ACELY1668)Year 2

RESOURCES

A lunch box containing items in disposable packaging, ie sandwich in cling wrap, juice box with straw

Butchers paper

Paper for making a poster

ACTIVITY

1. Show students a closed lunch box containing the disposable items in the resource list. Brainstorm with students what they think is inside.

2. Reveal the items one by one. Are they similar to what the students thought?

3. Discuss each item and its packaging. Pose questions:
   - Why was packing or wrapping used?
   - How does it affect the food in the lunch box?
     - What kind of material is used for the packaging? Why?
     - Is it used once and thrown away?
     - Could it be used again? Why?

4. On a sheet of butchers paper to display in the classroom make a list of packaging used in lunch boxes and beside it a column for reusable alternatives.

5. Thinking of their own lunch boxes brainstorm examples of packaging such as plastic cling wrap, snap lock bags, aluminum foil, chip packets, muesli bar wrappers, tetra pack juice boxes, yoghurt containers.

6. Do they think these are single-use? Why?

7. For each item ask what kind of reusable container could be used instead?

8. Students listen for specific information about each kind of packaging in order to develop their own ideas about what would make a good alternative (Year 2).

9. Students draw and label a waste free lunch poster using the ideas on the butchers paper. Ask students who they think the audience is? Parents? Friends? Teachers?

10. Display the posters around the school and in the front office for parents to see.

11. Year 2 students can also include a sentence explaining why they would like to have a waste free lunch.

12. From this activity you can start to incorporate regular waste free lunch days at your school, and pass the message onto the whole school.

RAW BLISS BALLS

INGREDIENTS

1 cup dates, seeds removed

1 cup dried apricots

1 cup rolled oats

1 tablespoon tahini

2 teaspoons cocoa or cacao

1/4 cup desiccated coconut

METHOD

Throw all ingredients into your blender, process until it all comes together, shape into balls, roll in coconut and enjoy!

Try substituting different ingredients (eg seeds, coconut oil, honey, nuts).

Freezes well.

YEAR 3 TO YEAR 6 ACTIVITIES

Waste audit at Swan Christian College.

1. MOVEMENT OF PLASTIC AND MARINE LIFE

AIM

Students will learn how plastics impact the marine environment when they conduct an experiment demonstrating the properties of objects that can be blown around by the wind.

AUSTRALIAN CURRICULUM LINKS

Science; Science Understanding

Chemical sciences (ACSSU074) Year 4, (ACSSU095) Year 6

Science; Science as a Human Endeavour

Use and influence of science (ACSHE051) Year 3, (ACSHE062) Year 4

Science; Science Inquiry Skills

Questioning and predicting (ACSIS053) Year 3, (ACSIS064) Year 4, (ACSIS231) Year 5, (ACSIS232) Year 6

Planning and conducting (ACSIS054) Year 3, (ACSIS065) Year 4, (ACSIS086) Year 5, (ACSIsi103) Year 6

Processing and analysing data and information ACSIS215) Year 3, (ACSIS216) Year 4, (ACSIS218) Year 5, (ACSIS221) Year 6

Communication (ACSIS058) Year3, (ACSIS071) Year 4, (ACSIS093) Year 5, ACSIS110 (Year 6)

RESOURCES

Internet access to watch Youtube video Two Minutes on Marine Life
http://www.youtube.com/watch?v=DtfAhy2lgAA

Variety of items: a plastic bottle, plastic bag, disposable coffee cup, straw, apple core, cardboard

Fan

Long table

Shallow container full of water

ACTIVITY

1. Ask students to think about what kind of items are made from plastic. Brainstorm and list on the whiteboard. Discuss:
   - How might these kinds of objects end up in the environment?
   - How might plastic move around if it is not put in a bin or recycled?
   - Even if it does go the landfill what might happen to it?
2. Watch the video http://www.youtube.com/watch?v=DtfAhy2lgAA Two minutes on marine litter with Jim Toomey.
3. Discuss what properties of plastic make plastic items popular but also harmful to the environment. They are lightweight and indestructible.
4. Considering the film clip, ask student to think about:
   - In what ways does plastic effect the environment?
   - What characteristics make a material a pollutant (Year 3)?
   - How can the way plastic is disposed of lead to pollution (Year 4)?
5. Write students' ideas on the white board. How can we prove that plastic items are easily blown around and can end up in the ocean causing harm to marine life?
6. As a class experiment with various types of rubbish to find out how certain materials react to wind on land and on water. Write a prediction. Plan the experiment by creating a table to show:
   - The item and material it is made from.
   - Can it be blown around on land?
   - Can it be blown around on water?
7. To conduct the experiment place a fan at one end of a table
   - Put the objects in front one by one. What happens?
   - Place a shallow tray of water in front of the fan.
   - Put objects in front one by one. What happens?
   - Students record observations in the table they have drawn.

Beehive Montessori School beach clean-up.

8. Discuss which items are blown around? Is there a tendency for items of the same material to get blown around? Why? Do they react differently on the water?

9. Discuss the cause and effect relationship between plastic items that are disposed on land and how they end up in our oceans and waterways.

10. Students in Year 6 can also investigate what happens to plastic once it is in the ocean for a long time (changes to materials are irreversible). Show and example plastic pellet resins to demonstrate that plastic is indestructible.

11. Students write a report using simple explanations and arguments to communicate their ideas about how plastic gets to the ocean and why there is so much (Years 3-4).

12. Students can use a labelled diagram to communicate ideas about how plastic items pollute the oceans and the impact on marine life (Years 5-6).

IDEAS FROM THIS LESSON

http://marinedebris.noaa.gov/sites/default/files/TurningTideonTrash_LoRes_Final.pdf

YOUR SCHOOL CAN PARTICIPATE IN A TWO HANDS CLEAN UP

http://www.plasticfreejuly.org/two-hands-clean-up.html

2. SINGLE-USE PLASTIC

AIM

Students will learn about single-use plastics, and how they impact the environment once they are discarded.

AUSTRALIAN CURRICULUM LINKS

English; Language

Language for interaction (ACELA1489) Year 4

Text structure and organisation (ACELA1479) Year 3, (ACELA1479) Year 3, (ACELA1490) Year 4, (ACELA1504), (ACELA1506) Year 5, (ACELA1517) Year 6

Expressing and developing ideas (ACELA1483) Year 3, (ACEL1512) Year 5, (ACELA1525) Year 6

English; Literacy

Interacting with others (ACELY1792) Year 3, (ACELY1688) (ACEL1680) Year 4, (ACELY1699, (ACELY1796) Year 5, (ACELY1709), ACELY1816) Year 6

Interpreting, analysing, evaluating ((ACELY1678) Year 3, ACELY1690) Year 4, (ACELY1713) Year 6

Creating texts (ACELY1682), (ACELY1683) Year 3, (ACELY1694) (ACELY1695) Year 4, (ACELY1704), (ACELY1707) Year 5, (ACELY1714) (ACELY1715) Year 6

RESOURCES

Internet access to watch the Youtube video Where is away? Solving plastic pollution
http://www.youtube.com/watch?v=q1Pb6cEC_gw

Butchers paper for the placemat activity

ACTIVITY 1

1. Show students the Surf Riders Foundation Youtube video Where is away? Solving plastic pollution http://www.youtube.com/watch?v=q1Pb6cEC_gw
   - Note this is American but appropriate for this age showing surfing, skating, musicians
2. Ask students to think about (use evaluative language) and discuss (effect on audience):
   - What surprised them the most? Why?
   - Was it effective in making them rethink using plastic products? Why?
3. Ask students to think about the difference between disposable single-use plastic and reusable plastic items.
4. Break students into groups and have them do a placemat activity where they individually list all the plastic they touched in the day so far. Students write ideas in their section of the paper.

Jake uses a sandwich wrap instead of cling wrap.

5. As a group decide which are single-use (disposable) and which are reusable. One student as the recorder writes the ideas in two separate circles in the middle of the paper
6. One student, as group leader from each group shares the ideas with the class. Write these on in two columns on the white board and discuss:
   - What are the most common disposable plastic items used?
   - How many times are they used? What happens to them?
   - Which plastic items could be recycled?
   - Which disposable item has a reusable alternative? What could you use if it doesn't?
   - Discuss the idea of 'refuse' such as say no to plastic straws.
7. Ask each student to think of a Plastic Free July pledge they would like to make and write it on the slips provided. Display in the classroom or around the school.

ACTIVITY 2

1. Put up the following quote on the Interactive White Board (IWB) and discuss whether they agree with it:

> 'Think about it. Why would you make something that you're going to use for a few minutes out of a material that's basically going to last forever, and you're just going to throw it away. What's up with that?'
>
> Jeb Barrier – *Bag It movie*

2. Students choose one of the single-use plastic items from Activity 1 and write a persuasive text to convince people to use a reusable alternative. Consider audience, for example their peers, parents or teachers. This will affect the language and tone that is used.

3. Students focus on using subjective and object language (Year 6).

4. Review the structure of writing persuasive texts if necessary. Encourage students to use phrases such as 'I think' and 'I believe' to express opinion and structure discourse markers such as firstly, then, next and finally (Year 4).

5. Students can use digital technologies to construct and edit texts using word processing programs. Have students edit their own work then have a partner edit it (Year 5-6).

6. Choose students to read their persuasive texts to the class or a buddy class at school to spread the message.

Replace plastic with cloth bags for fruit and vegetables.

3. WHAT'S IN THE BIN?

AIM

Students will examine their school's waste to find out how much and what kind of waste is produced, focusing on single-use plastics. This activity can be done over two lessons, one in Science and one in Mathematics.

AUSTRALIAN CURRICULUM LINKS

Science; Science Inquiry Skills

Planning and conducting (ACSISO54, ACSIS065) Years 3-4

Processing and analysing data and information (ACSIS057, ACSIS068) Years 3-4, (ACSIS090, ACSIS107) Year 5-6

Mathematics; Measurement and Geometry

Using units of measurement (ACMNA060)Year 3, (ACMMG084) Year 4, (ACMMG108) Year 5, (ACMMG136) Year 6

Mathematics; Statistics and Probability

Data representation and interpretation (ACMSP070) Year 3, (ACMSP096) Year 4

RESOURCES

Copy of Waste Wise waste audit DVD or website link
http://www.wasteauthority.wa.gov.au/publications/waste-audit-dvd

Bins set up to collect school waste

Rubber gloves or tongs

Newspaper or tarpaulin to tip rubbish onto

Scales

Containers with the labels: paper, plastic, chip packets, fruit etc

Example of the excel waste audit data collection table

ACTIVITY 1 Science Inquiry Skills

1. Watch the Waste Wise Schools waste audit film clip http://www.wasteauthority.wa.gov.au/publications/waste-audit-dvd
   Discuss:
   - Why it is important to know what kind of rubbish is in the school bin?
   - Why do we want to record how much rubbish is thrown away at school?
   - What can we find out about disposable single-use plastic at school?
2. Brainstorm ways to collect and represent the data from the waste audit:
   - How do we record the type of waste produced?
   - What categories could we use?
   - How can we record how much in each waste category is produced? By counting? By weight?
   - How can we best represent the data to show the school? A graph? Pie chart?
3. Display the excel table provided on the Interactive White Board (IWB) as an example to record the collected data. The data from the waste audit can be used to make a graph (Year 6 digital technologies).
4. Prepare to conduct the bin audit by dividing students into pairs and allocating a category of waste to sort. One student from the class is in charge of the scales and one student records the weight or tally of items in each container in the excel table.

Waste audit at Swan Christian College.

ACTIVITY 2 Mathematics Number and Algebra, Statistics and Probability, Measurement and Geometry

1. In the afternoon collect the lunch waste, set up the containers and the scales. Discuss:
   - What is the appropriate unit of measurement (Year 5)?
   - What are the benefits of converting metric units and why would this be useful in recording the data collected from the waste audit (Year 6)?
2. Tip out the rubbish on a tarpaulin or plastic sheet. Discuss student observations:
   - Are they surprised about the amount of waste?
   - What types of plastic items do they see?
   - Do they think weighing the plastic will show the lasting impact on the environment?
   - How else can this impact be demonstrated?
3. Students work in pairs using gloves or tongs to sort their allocated waste category ie chip packets, fruit, cling wrap etc. Once the waste is sorted take photos to document how much and the type of rubbish in each category. Focus on the amount of plastics.
4. Use scales to weigh the items and record data in the excel table. This can be printed or recorded directly into the excel table using a lap top then viewed on the IWB.
5. Once the items are weighed and recorded clean up the bin audit area.
6. Back in the classroom display the data and discuss:
   - What have they learned about what type and how much rubbish is throw away?
   - How much of the school waste is single-use plastic? Are they surprised?
   - If they only did a portion of the school bins how much waste is produced by the whole school? How much would the school produce in a year?
7. Discuss ways to reduce the amount of single-use plastic thrown away at school. For example, bring reusable lunch containers and water bottles. Encourage students to think about ways to refuse, reuse and recycle.
8. Publish the data collected from the bin audit in the school newsletter. Include examples of how the school community can reduce this amount of waste.

SEE JUST HOW MUCH SINGLE-USE PLASTIC YOUR SCHOOL HAS BEEN USING. TAKE ON THE PLASTIC FREE JULY CHALLENGE AND COMPARE THE DIFFERENCE.

4. WASTE FREE LUNCHES

AIM

Students learn about the benefits of a waste free lunch and how to promote these benefits to the school community.

AUSTRALIAN CURRICULUM LINKS

English; Language

Language for interaction (ACELA1489) Year 4

Text structure and organisation ((ACELA1480) Year 3, (ACELA1490) Year 4, (ACELA1504) Year 5

English; Literacy

Interacting with others (ACELY1792) Year 3, (ACELY1689) (ACELY1694) Year 4, (ACELY1700) Year 5, (ACELY1709) (ACELY1710) Year 6

Interpreting, analysing, evaluating (ACELY1703) Year 5

Creating texts (ACELY1740) Years 5-6

RESOURCES

Lunch box with disposable packaging

Links to reusable lunch containers

http://www.4myearth.com.au/store/

http://www.nudefoodmovers.com.au/

Links to Youtube videos

DID YOU KNOW PRE-SLICED AND PACKAGED APPLES CAN COST AROUND $28 PER KILOGRAM!

ACTIVITY 1 English – Design a waste free lunch box

1. Show students a closed lunch box containing the disposable items in the resource list. Brainstorm with students what they think is inside.

2. Ask volunteers to reveal the items. Was the students' list of ideas similar to what was actually in the lunch box? Why or why not?

3. Ask students to think about the type of reusable and compostable options that are available.

4. Have students create a table with one column listing the single-use and plastic packaging and the other column showing the reusable alternative. List as many ideas as they can in two minutes.

5. Use a round robin for students to share new ideas and record in a table on the white board or on butcher's paper to display in the classroom.

6. Discuss some of the possible issues around having a waste free lunch, for example, containers need to be washed, but can reused. Containers are expensive to buy but it's cheaper to buy food in bulk.

7. Divide students into groups to design and label a waste free lunchbox poster. Consider:
   - Who is buying the products to go in a school lunch? Who makes it? Who is eating it? (audience for second part).
   - Research what alternatives exist, for example Nude Food and 4MyEarth (Year 5 research skills).
   - What is going to convince parents to change the way they make lunches? For example cost or environmental impact?
   - Draw and label what can be reduced, reused or recycled (for example pack smaller portions, reusable containers, compost organics).

8. Each group will discuss and share information about what goes is a waste free lunch:
   - Explain their choices and why the items were reduced, reused or recycled?
   - Discuss any differences in the lunch box designs (Year 3 interacting with others).
   - Which waste free lunch design would be liked by parents? Why?

9. Now that the waste free lunches are designed, students can focus on persuasive texts to promote it to the school community.

Waste free staff lunch at Scotch College.

ACTIVITY 2 English – Persuading the school community to have a waste free lunch

1. Watch the short Jamie Oliver video https://www.youtube.com/watch?v=QDFRdPKKLfw and the Waste free Challenge Instructional Videos for Parents and Guardians. http://www.wastefreelunch.com/videos

2. Compare the different types of language:
   - Who is more convincing? Why?
   - What are the differences in body language? Tone of voice?
   - Which is more appealing to parents? To students? Why?

3. Brainstorm what sort of persuasive language features would be used to persuade parents to make waste free lunches (Year 4).

4. Students will write a persuasive letter to their parents or design a poster to convince their family of the benefits of a waste free lunch. Display the posters around the school or at the front office where parents will see them.

5. Students can create a digital media presentation with information for the school community on the benefits of a waste free lunch and how to make one. They can use graphics, sound and visuals. Include ideas on how to make a Plastic Free July pledge (Year 5).

6. Students in Year 5 and 6 can also present to the Parents & Citizens (P&C) Committee to promote waste free lunches. The P&C can also sell reusable sandwich wraps as a fundraiser.

WASTE FREE LUNCH DAYS ARE DAYS WHEN STUDENTS AND PARENTS TRY THEIR BEST TO PACK A LUNCH BOX WITHOUT SINGLE-USE DISPOSABLE PLASTIC.

PLEDGES

IDEAS FOR PLEDGES

I pledge to…

- Help my mum and dad make a waste free lunch.
- When I order a drink I will say no to having a straw.
- Put the reusable bags in the car for mum and dad when we shop.
- Use a reusable water bottle when I go to the skate park.

Pledges are a great way to get others involved. Displaying the pledges publicly helps people to remain committed to their pledge. Blank pledge forms are included at the end of this document.

Pledges display.

SECONDARY SCHOOL LEADERSHIP: CAN YOUR SCHOOL REDUCE PLASTIC USE?

City of Rockingham's Castaways Sculpture Awards artwork submitted by Jacq Chorlton.

STUDENT LEADERSHIP ACTIVITY BACKGROUND INFORMATION

The Plastic Free Challenge for schools
Encourage as many students, teachers and family members to stop using plastic bottles, plastic bags, straws or take-away coffee cups for a day, a week or a month.

The rules for all participants

1. Attempt to stop using plastic bottles, plastic bags, straws or take-away coffee cups.
2. It's up to you how long you participate. You might decide to join for a day, a week, a month or longer! However long you choose will still make a contribution.
3. Optional: Collect any unavoidable plastic bottles, plastic bags, straws or take-away coffee cups you buy. Keep these in a 'dilemma bag' and share it with each other at the end of the challenge. You could create a display of all the plastic students, teachers and families were unable to avoid.

You might like to extend the challenge to include all single-use plastic. Single-use includes plastic shopping bags, plastic cups, straws, plastic containers and packaging... basically anything that's intended only to be used once and then sent to landfill.

Remember it's a challenge, not a competition, so don't worry if you're not perfect.

AIM: A small group of students plan and run a Plastic Free challenge at their school or in their school community.

SUMMARY: The challenge could be run by a student leadership group or a group of students that feel inspired to reduce their use of plastic. In this guide students are encouraged to complete six activities:

- Brainstorm single-use plastic in their lives such as plastic bottles, bags, straws, cups and more
- Research ideas / alternatives to single-use plastic
- Meet with the principal to get permission to run the Plastic Free challenge
- Plan the Plastic Free challenge to encourage other students to stop using plastic bottles, bags, straws, cups
- Run the Plastic Free challenge for a day, week or month
- Celebrate.

The activities could be done at lunch time, as an after school activity or as part of form time, homeroom, tutor groups or mentor groups (with permission of teachers or principal).

Students, if you are running the Plastic Free challenge on your own, you might like to identify a teacher or parent who could offer advice and help you along the way.

DURATION: The Plastic Free challenge is designed to run for one month but can be run for a day or a week.

PLANNING TIME: Students will need 5-6 hours to plan, promote and run the Plastic Free challenge.

BACKGROUND INFORMATION:

Plastic Free July is an initiative of the Western Metropolitan Regional Council (WMRC) Earth Carers Program. It started here in Perth in 2011. Plastic Free July (PFJ) aims to raise awareness of the amount of plastic in our lives by encouraging people to eliminate the use of single-use plastic during July each year. In 2013, there were 4000 people participating in Plastic Free July including individuals as well as businesses and schools. And, it's not just Perth that gets involved. In 2013, people in New Zealand even got involved.

This guide is designed to help students run a Plastic Free challenge at their school. The Plastic Free challenge is similar to the Plastic Free July Campaign but it doesn't have to be run in July.

There are loads of fantastic resources on the Plastic Free July website (http://www.plasticfreejuly.org/) that students could use to promote the school's Plastic Free challenge.

In addition, a lot of the information in this guide was adapted from information provided on the Plastic Free July website.

USEFUL LINKS

Students will use these links in the activities outlined in this guide:

1. Watch Catalyst ABC TV – Plastic Oceans
   http://www.youtube.com/watch?v=cwTDvqaqPlM

2. Plastic Free July http://www.youtube.com/watch?v=7u01LS9enPQ

3. Beth Terry's story about Living Plastic Free on TEDex
   http://www.youtube.com/watch?v=3JXWRVrFiKs

4. List of movies to screen http://www.plasticfreejuly.org/movie-screenings.html.

RESOURCES

Access to the internet to watch short video clips

Access to the Plastic Free July website

Access to a printer (to print posters from the Plastic Free July website)

A copy of the movie *Bag It* (78 minutes) if students want to screen it (this can be borrowed from the Waste Wise team or purchased here for $150 https://www.newday.com/film/bag-it

Projector and speakers to show the movie *Bag It* or other video clips

Resources to create posters about the Plastic Free Challenge

A copy of the pledge forms for students to complete.

REFUSE PLASTIC BY BRINGING YOUR OWN CLOTH BAGS AND CONTAINERS. BUYING IN BULK CAN HELP TOO!

GET INSPIRED

ACTIVITY ONE: Getting started

1. Watch Catalyst ABC TV – Plastic Oceans http://www.youtube.com/watch?v=cwTDvqaqPlM

2. List as many single-use plastic items as you can. Think about the plastic used by you, other students, teachers and your family.

What is single-use plastic?

SINGLE-USE INCLUDES PLASTIC SHOPPING BAGS, PLASTIC CUPS, STRAWS, PLASTIC BOTTLES AND PACKAGING...BASICALLY ANYTHING THAT'S INTENDED ONLY TO BE USED ONCE AND THEN SENT TO LANDFILL.

TEACHER'S TIP: You could use a placemat activity to brainstorm single-use plastic items with students.

ACTIVITY TWO: Research single-use plastic and share inspiring ideas

1. Watch the short clip on Plastic Free July https://www.youtube.com/watch?v=7u01LS9enPQ

2. Watch Beth Terry's story about Living Plastic Free on TEDex https://www.youtube.com/watch?v=3JXWRVrFiKs

3. Research and share inspiring ideas / alternatives to the single-use plastic items. You will find lots of alternatives here: http://www.plasticfreejuly.org/a-z-alternatives.html

TEACHER'S TIP: You could jigsaw these videos in Activity 1 and Activity 2 if you are short of time.

OPTIONAL ACTIVITY:

What kind of plastic is in your school bin? Conduct an audit and find out.

Hannah uses a sandwich wrap and drink bottle.

AUSTRALIANS SEND 1 MILLION TONNES OF PLASTIC WASTE TO LANDFILL EACH YEAR. DO YOUR PART TO MAKE A CHANGE.

RUN A PLASTIC FREE CHALLENGE AT YOUR SCHOOL

The next step is to run a Plastic Free challenge at your school. The challenge is quite simple. Encourage as many students and teachers to stop using plastic bottles, plastic bags, straws or take-away coffee cups for a day, a week or a month. You might like to extend the challenge to include all single-use plastic. One way to do this is to encourage students and teachers to make a pledge.

The challenge is outlined on the first page.

Pledges are a great way to get others involved. Displaying the pledges publicly helps people to remain committed to their pledge. Blank pledge forms are included at the end of this document.

EMMA'S DILEMMA. Emma was part of Plastic Free July in 2013. Over the month she had several dilemmas. One evening she was invited to dinner with friends. They ordered too much food and couldn't finish it. Emma had a dilemma. Should she take the food home in a plastic container that the shop offered or should she leave the food to be thrown in the bin? She took the food in a plastic container. She kept the container in her 'dilemma bag' with the other plastic items she couldn't avoid. You might like to create a 'dilemma display' – this might be a display of all the single-use plastic you and other students couldn't help using. For example, some students may travel and need to drink from water bottles because the water is unsanitary. They could collect these bottles and put them on display. By sharing dilemmas students could discover a creative solution!

A pledge by a staff member at the Department of Environment and Conservation, 2013.

ACTIVITY THREE: Get permission from your principal to undertake the Plastic Free challenge

1. Organise a time for your student group to meet and discuss seeking permission from the principal.

2. Ask one student to scribe for the group as you discuss your ideas.

3. Discuss and decide on how long you will run the challenge for.
   Will you run the challenge for a month? Students participating could then choose to participate for a day, a week or for the whole month. Alternatively, you could run the challenge for a week or a day.

4. Discuss and decide when you would like to start the challenge.

5. Make a list or set an agenda for the meeting with the principal to make sure you cover all the important details.
   - What is the Plastic Free challenge? What do you hope to achieve? Why do you want others to participate?
   - When will the challenge start?
   - How long will the Plastic Free challenge run for?
   - Which teachers (if any) are supporting you?
   - How do students, teachers and parents get involved?
   - Seek feedback and permission to run the challenge.

6. Decide which students will speak to the principal.

7. Book a meeting with your principal.

8. Present your ideas at the meeting. Remember to smile and show your enthusiasm.

ACTIVITY FOUR: Plan a Plastic Free challenge for your school

Congratulations! Now that you have the permission of your principal, it's time to start planning.

1. Organise a time for your student group to meet and begin planning for the Plastic Free challenge.

2. Ask one student to scribe for the group as you discuss your ideas.

3. Discuss and decide how you will promote the challenge to other students and teachers. Some ideas include:
   - **Screen a movie:** Screen a movie such as *Bag It* over a few lunchtimes or as an after school event (*Bag It* can be borrowed from the Waste Wise Schools Program) and ask students and teachers to pledge.

     View the trailer for *Bag It* here: http://www.youtube.com/watch?v=MRjPkl_4lmM
   - **Put it in the newsletter:** Write an article for the school newsletter. Include the pledge form and ask them to be returned to the office (remember to find out who publishes the newsletter and when the deadline is for submitting an article).
   - **Posters:** Put up posters for the challenge and for any events you are running. You can design your own or use the ones on the PFJ website http://www.plasticfreejuly.org/posters--flyers.html

- **Assembly:** Promote the Plastic Free challenge at your school assembly and ask students to pledge at the end of the assembly. You could show a short video (e.g. Part of the Catalyst video) to inspire students to make a change.
- **Lunch time display:** Set up a display at lunch time and encourage people to make pledges. Display the pledges around the school or take a photo of each student with their pledge and post them online (with their permission of course).
- **School website:** Put events and information on your school website.
- **Involve the media:** Send media releases to the local newspaper / radio / TV stations http://www.plasticfreejuly.org/media-releases.html
- **Share your stories:** Write blogs, share photos and stories on social media like Facebook, twitter and Instagram.

  For more details or ideas visit http://www.plasticfreejuly.org/get-your-school-involved.html

4. Assign different jobs to different students to help get them done.

5. Set a meeting time to continue preparing for the challenge.

ACTIVITY FIVE: Run the Plastic Free challenge

Now you are ready to run your Plastic Free challenge. Don't forget to take photos and share them with the Waste Wise team. We would love to see what you achieve.

If you are running the Plastic Free challenge in July then you can register your school with Plastic Free July and join thousands of others who have also pledged to stop using single-use plastic. You can register here: http://www.plasticfreejuly.org.

ACTIVITY SIX: Celebrate

It's a good idea to celebrate the end of the challenge and recognise all the students and teachers that participated. Here are some ideas to help you celebrate.

- Hold a celebratory plastic free morning tea at recess. You could invite your local Member of Parliament.
- Design certificates to acknowledge the students that took part or ask the principal to provide a letter congratulating participants for their efforts.
- Design a t-shirt stencil and invite students that took part to bring an old t-shirt (or purchased second hand) that can be printed with a stencil.
- Make wooden badges and give them to participants.

OTHER IDEAS

Here are some other ideas to consider. You could run these as part of your school's Plastic Free challenge or as separate activities.

- Hold a waste free day
- Run a waste free workshop
- Participate in a Two Hands cleanup http://www.plasticfreejuly.org/two-hands-clean-up.html
- Conduct a bin audit and photograph the plastic waste http://www.plasticfreejuly.org/bin-audit.html.
- Check out what other schools in WA are doing for more ideas http://www.plasticfreejuly.org/schools.html
- Watch the *Trashed* movie

TIP FOR TEACHERS

This challenge is designed to complement the lessons in the bottled water unit in the following subjects.

- Maths
- English
- Science
- Geography
- History

These units are available online at: http://www.wasteauthority.wa.gov.au/programs/waste-wise-schools/curriculum/high-school/

PLASTIC FREE JULY

My Plastic Free July pledge is:

www.plasticfreejuly.org

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WASTE AUDIT RESULTS

Waste Audit Results

Please only fill in pink cells. Others will auto-calculate.

School:

Date:

Number of Students in School:

TYPE OF WASTE	Waste Sorted (100%)		Waste Generated per Year		Waste Generated/student/year	
	Weight of Waste in kg	No. of Items	Weight of Waste in kg	No. of Items	Weight of Waste in kg	No. of Items
RECYCLABLE Organic						
Fruit and Veg (scraps)						
Fruit (whole)						
Food Scraps						
Paper & Cardboard						
Total (organic)						
RECYCLABLE Non-Organic						
Other recyclables						
Plastic (1- 7)						
Aluminium cans, trays, al foil						
Steel cans						
Milk cartons (LPB)						
Total (non-organic)						
Total All Recyclables (organics + non-organics)						
NON-RECYCLABLE						
Chips, lollies and icecream wrappers						
Juice cartons (tetrapaks)						
Plastic bags & Glad wrap						
Rubbish (Other Non-Recyclables)						
Whole Packaged Food (unopened)						
Total (non-recyclables)						
TOTAL ALL WASTE						