



THEME: Dispose of waste wisely for a healthy Samoa

MESSAGE: Refuse, Reduce, Reuse, Recycle and Return
Tete'e, Fa'a'itiitia, Toe Fa'aaoga ma Toe Fa'afo'i

Target Group: 10-12 yrs old
 (group of about 10 learners)

Time: 3hrs

Location: At school grounds/At beach/At community designed area

Learning Objectives

- To define what rubbish is (Activity 1)
- O le a le uiga o le upu lapisi/otaota
- To understand how to care for our environment by collecting trash (Activity 2)
- la tausia lelei le siosiomaga e ala i le aoina o otaota
- To understand how different waste materials can be sorted (Activity 3)
- O le a se galuega e tatau ona fai ina ia tausia lelei ai le siosiomaga
- To understand how to dispose of waste correctly and why this is important (Activity 4)
- O a ituaiga lapisi e tatau ona iloa e tamaiti
- To understand what we can do to reduce waste (Activity 5)
- O a ituaiga auala e fesoasoani e fa'a'itiitia ai lapisi

ACTIVITY 1: To define what rubbish is

(Time: 36 Minutes)

Resources/ Materials needed:

- Story: 'Where has all the rubbish gone?'

Key vocabulary (ensure the learners understand these meanings)

Rubbish: waste material; the material left after something has been used

Refuse: indicate or show that you are not willing to do something (e.g. refuse a single use plastic bag)

Reduce: use less materials or make waste material smaller

Reuse: use materials more than once

Recycle: change or adapt the material for a new use

Return: some organic materials could be returned to nature in form of compost; bottles can be returned to be refilled

1a. Ask the learners to look around at their surrounding environment

Key question: Can you see any rubbish?

- You may want to point out some items for the learners to think about e.g. a banana skin ("Is this rubbish?"); a glass bottle ("Is this rubbish?")

Key question: What is the definition of rubbish?

- **Rubbish is waste materials or the materials left after something has been used.** It could be packaging such as plastics, cans and bottles or something thrown out

because it is broken or no longer used. It can also be fruit and vegetable peelings or food scraps.

1b. Read the story: 'Where has all the rubbish gone?'

Key question: Raise a question based on the text to check learner's understanding of it

1c. Introduce the message: **Refuse, Reduce, Reuse, Recycle, and Return.**

Discuss each word to check the learners understand what it means **(5 MINUTES):**

Refuse: indicate or show that you are not willing to do something (e.g. refuse a single use plastic bag)

Reduce: use less materials or make waste material smaller

Reuse: use materials more than once

Recycle: change or adapt the material for a new use

Return: some organic materials could be returned to nature in form of compost; bottles can be returned to be refilled

1d. For each word, ask the learners to create an action with their bodies to help them remember the word and what it means. Return to these words and actions throughout the session to reinforce them in the learner's memory.

- For example, an action for reduce could be learners standing up and then shrinking down to a crouching position; an action for recycle could be rolling your arms round and round in front of you

ACTIVITY 2: To understand how to care for our environment by collecting trash
(Time: 36 Minutes)

Resources/ Materials needed:

- Sack to collect trash in (one for each team; ideally a non-plastic sack or Samoan basket)
- Gloves (pair for each learner; preferably fabric rather than plastic)
- Coloured bands (to identify each team)

2a. Have a discussion with the learners:

Key questions:

- **Why do you think people throw trash onto the ground in an open, public place?**
- **Do you think this is the right thing to do? Why? Why not?**
- **What can you do to reduce the amount of trash around you?**
- **What impact does waste have when not thrown in the right place? On your health? On the reef and marine life? On tourism?**

Discuss the learner's ideas and then encourage them to think of the following suggestions too. Write all ideas down to refer to in the plenary.

Ways to reduce the amount of trash:

1. *Reduce, Reuse, Recycle, Refuse and Return*
2. *Dispose of trash that cannot be treated in these ways at a central rubbish collection site*
3. *Encourage friends and family to dispose of rubbish in these ways too*
4. *Pick up any trash that you see around you before it causes harm to others or our environment*

2b. Focus on this last idea and suggest that learners 'take action' straight away to clear up the trash in their surrounding environment

- Divide the learners into 4 teams (you could give them coloured bands to identify them).
- Explain the task to hunt carefully around the area and pick up any trash they find.
- Warn the learners to be careful if they find broken glass (you could suggest they show this to an adult who can pick it up instead of them); also to be careful if they find other hazardous rubbish such as nappies. Give the learners gloves to wear and make sure they wash their hands afterwards too.
- Provide each team with a sack to collect trash in and explain they will compete with the other teams to see who can collect the most amount of trash.

Note: After doing this activity with your first group of the day, the site will probably be clear of trash so you may have to scatter the trash back around the site for your second group of the day!

ACTIVITY 3: To understand how different waste materials can be sorted
(Time: 36 Minutes)

Resources/Materials needed:

- A4 paper and pens (to write material signs)
- For each team, 5 labels saying 'Organic' and 5 labels saying 'Inorganic'

Key vocabulary (ensure the learners understand these meanings)

Organic: being or coming from plants or animals

Inorganic: Not being or coming from plants or animals (does not contain carbon compounds)

***** Organic waste comes from plants (living things)... Inorganic waste is made IN factories) 😊**

3a. Bring the teams back together and ask each team to carefully put the trash they have collected into a pile in front of them.

Key question: What materials are the trash you have collected made from?

- As the learners suggest materials, write each one on a separate piece of paper e.g. Plastic; Metal; Glass; Paper/ Cardboards; Food scraps

3b. Suggest that learners sort their pile of trash into these material categories. Place the material signs you have written across the area. Explain that learners should carefully sort through their trash and then go and place each piece by the correct label. You could suggest that the teams race against each other to see which team can sort their trash first.

3c. Bring the teams back together and look at the sorted trash.

- Explain that some of this trash is **organic** and some is **inorganic**. Explain what these terms mean:

Organic: being or coming from plants or animals

Inorganic: Not being or coming from plants or animals (does contain carbon compounds)

Key questions: Which piles of trash are organic? Which piles of trash are inorganic?

- Give each team 5 labels saying 'Organic' and 5 labels saying 'Inorganic' and ask them to place one by each pile of trash according to what they think it is.
- Once each group has placed their labels, discuss each pile of trash and whether it is organic or inorganic.
- Discuss how paper and cardboard comes from plants originally so is organic (for example it could be used as a composting material)

Activity 4: To understand how to dispose of waste correctly and why this is important (Time: 36 Minutes)

Resources/Materials needed:

- Compost bin (if available, if not then a compost will be constructed around center)
- Rope (for time line or use Samoan baskets to represent each time scale- this is an especially useful alternative if it is windy to prevent trash from flying around)
- Separate signs saying: Less than a year; Up to 5 years; Up to 10 years; Up to 50 years; Up to 100 years; Up to 500 years; Up to 1000 years; Up to 1 million years. (one of these should be attached to each Samoan basket)
- Clothes pins to attach signs to rope or baskets
- Poster – with decomposition times for reference

Key vocabulary (ensure the learners understand these meanings)

Degrade/Decompose: break down or deteriorate chemically

Compost: organic material that decomposes relatively quickly and can be turned into natural fertilizer for growing plants

4a. Show the learners a compost bin and discuss what compost is (link to organic waste/materials)

Key questions: Do you know what this is used for? What materials can be put in a compost bin?

- Discuss the types of materials that can be composted and how these materials break up over time to create compost. Discuss materials that should not be added too. You could write a list of these for reference later:

<i>Materials that can be added to a compost bin</i>	<i>Materials that cannot be added to a compost bin</i>
<ul style="list-style-type: none">• <i>Non-animal food scraps: fruit and vegetables, bread, cereals</i>• <i>Grass and tree clippings</i>• <i>Leaves</i>• <i>Manure</i>• <i>Paper and cardboard</i>• <i>Nut shells</i>	<ul style="list-style-type: none">• <i>Animal products e.g. fish skins, meat, bones</i>• <i>Lemon peel and onions (the natural chemicals and acidity can kill worms and other microorganisms which you need to make your compost)</i>• <i>Saw dust from treated wood</i>• <i>Coal fire ash</i>• <i>Large branches</i>

- Discuss the benefits of using compost where plants and crops are grown rather than always using synthetic fertilisers.
- Discuss the benefits of disposing of organic waste in this way, rather than throwing it on the ground where rats and flies would be attracted to it or disposing of it with the rubbish that is put into landfill where it will release harmful greenhouse gases as it decomposes.

4b. Ask the learners to help you to set up a compost bin for their community to use. Use the organic materials the learners have collected in their trash collection to.

4c. Ask the learners to look at the piles of inorganic trash. Assign each team to a different pile of trash and ask them to look carefully at each item within their pile.

Key questions: What harm could this trash do: to the environment? To people in this environment? To other creatures in this environment?

- Discuss ideas such as hurting humans or animals if materials are eaten or touched; harming plants and soils; getting washed into rivers and then into the ocean.

4d. Explain that inorganic materials take a long time to degrade.

- Lay out a timeline (e.g. by drawing in the sand or laying out a rope or using Samoan baskets); put signs along it saying: Less than a year; Up to 5 years; Up to 10 years; Up to 50 years; Up to 100 years; Up to 500 years; Up to 1000 years; Up to 1 million years
- Challenge the learners to estimate how long the trash in their pile of inorganic waste would take to degrade. Ask them to place each item of trash along the time line.

4e. Look together at each item of trash the learners have sorted and move them accordingly where learners have over or under estimated how long they would take to degrade.

Some of the trash the learners may have sorted and the times it takes those materials to degrade:

Glass bottle: 1 million years

Nappy: 200- 500 years

Plastic bottles: 450 years or more

Plastic bags: up to about 1000 years

Cans: about 50 years

Plastic cups: 30 years

Crisp packets: 80 years

Sweet wrapper: 20 years

Key question: Are you surprised by the time it takes any of these materials to degrade? If so, which ones?

4f. Key question: What could you do to reduce the amount of trash that is left to degrade?

- Refer back to the Reduce, Reuse, Recycle, Refuse and Return message and ask the learners to repeat the message with the actions again.

4g. Look at each item of trash along the timeline and discuss how it could be disposed of correctly.

Key question:

- **Could you reduce how much of this item you use? Could you squash this item (e.g. tin cans) before you dispose of it?**
- **Could you reuse this item again?**
- **Could you recycle this item for another use?**(Put these items in a pile as you discuss them so they are ready for Activity 4)
- **Could you have refused to have this item?**
- **Could this item be returned and refilled?**

4h. Make a pile of any rubbish that could not be refused, reduce, reused, recycled, or returned.

Key question: What can you do to dispose of this rubbish?

- Discuss how some rubbish will need to be put in bags to be collected by the government rubbish collection service.
- Explain that this rubbish needs to be secured down so that in strong winds it is not blown away again where it could end up in rivers or become harmful to humans and wildlife.

Key question: Do you know where this rubbish is taken to?

- Explain what a landfill site is and where one is located.

ACTIVITY 5: To understand what we can do to reduce waste (Time: 36 Minutes)

Resources/Materials needed:

- Check there are enough materials available for this activity. You need a selection of: packets, boxes, tubes, cans, bits of broken toy, bits of rope or wire...
- Scissors, sticky tape, string
- Examples of status quo and alternatives (reusable bags, paper or metal straws, take-out containers)
- Coconut leaves to weave a samoan basket from

Key vocabulary (ensure the learners understand these meanings)

Recycle: change or adapt the material for a new use

Refuse/Reduce: choose alternatives that don't harm the environment

5a. Look again at the items that were separated into a pile to be recycled (in Activity 3).

- For each item, discuss possible alternatives to throwing them away

Key question: What sort of toys or useful objects could be created from these items?

- Discuss the learners ideas and show them examples of alternatives
- Give the learners the choice of either learning how to weave a Samoan basket or making their own toy or useful object out of the trash.

5b. Refer back to the list made in Activity 1:

Ways to reduce the amount of trash:

1. *Refuse, Reduse, Reuse, Recycle and Return*
2. *Dispose of trash that cannot be treated in these ways at a central rubbish collection site*
3. *Encourage friends and family to dispose of rubbish in these ways too*
4. *Pick up any trash that you see around you before it causes harm to others or our environment*

- Ask the learners to each say one thing they will commit to do to reduce waste in future and become a **TRASH STAR**. Learners should write these on a star to be displayed for reference throughout the week (e.g. tie to the branches of a tree).

5C. Finally, ask the learners to perform their actions for Reduse, Reuse, Recycle, Refuse and Return again and encourage them to try to remember this message.

Assessment/ Evaluation:

Enrichment:

Cultural Context References:

Implications for Future Learning:

Related MESC Formal Curriculum Learning Objectives:

RECAP QUESTIONS

\$100:

Answer A OR B

One of the following is the definition for RECYCLE

A. use **PLASTIC** materials more than once/Toe Fa'aogā otaota lē pala(plastics)

B. change or adapt **PLASTIC** materials for a new use/Toe Gaosi ni oloa fou mai i otaota lē pala(plastics)

\$200:

Answer A or B

Which of the following DOES NOT contain carbon Compounds?

O lē fea o otaota nei e le maua ai ni kaponi i totonu?

A. ORGANIC MATERIALS/OTAOTA PALA

B. INORGANIC MATERIALS/OTAOTA LĒ PALA

\$300:

What are Organic Materials/Waste? Give TWO Examples.

Materials or Waste from plants or animals

Anything from plants or animals.

\$400:

What are the five methods that help to save our environment from inorganic trash/plastics?

Answer : 5 Rs - Refused, Reduced, Reused, Recycled and Returned.

\$500:

Describe how turtles are affected of plastics bags.

Plastic bags are like jelly fish in the ocean and turtles hungrily eat them as well but plastic bags are inorganic materials/wastes that remain undigested in the turtle's digestive system and will end up killing the turtles.

LIST OF MATERIALS FOR TRASH STAR

Activity 1

- 1 Book: Where has all the Rubbish gone? (Samoan and English translation)
2. plastic bottles, bags etc
3. A4 Sheets labelled Refuse/Tete'e, Reduce/Fa'aitiitia, Reuse/Toe Fa'aaogā, Recycle/Toe Gaosi & Return/ Toe Fa'afo'i
4. Flash Card with the definition of Trash/Rubbish, Refuse, Reduce, Reuse, Recycle and Return

Activity 2

- Non Plastic sack,
- Non Plastic Gloves
- Coloured Band for teams
- Non Organic Sacks(cck)

Activity 3

- A4 papers
- Markers(flat tip)

Activity 4

- Clothespins to attach signs
- Poster – w decomposition times for reference
- String
- Cardboards
- Compost Bin

Activity 5

- sticky tape, string
- reusable bags, straws, take-out containers
- Coconut leaves for weaving (baskets)

