

The NSNP Safety Directory



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

The NSNP Safety Directory

PURPOSE OF THE DIRECTORY

As we strive to improve the National School Nutrition Programme to provide quality nutritious meals to learners, guidance is needed to maintain the relevant standards on safety. This NSNP Safety Directory was developed to ensure that school meals are prepared in hygienic and safe premises, and that the resulting waste is handled in a way that does not harm but protects the environment.

The booklet is intended for officials in the Provincial Education Departments, districts and schools as well as for food handlers. It can be used for monitoring schools on whether correct actions are taken to ensure safe meals are served to learners.

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1. INTRODUCTION

The National School Nutrition Programme (NSNP) aims to prepare and serve nutritious cooked meals to learners in identified schools on all school days. The NSNP has three objectives: to enhance learning capacity through school meals; to strengthen nutrition education in schools; and to promote sustainable food production initiatives in schools.

Personal hygiene and basic kitchen hygiene are important to prevent the contamination of food as well as to ensure the safety of food handlers. With the introduction of an almost universal cooked menu first in primary schools and now in secondary schools, the emphasis on safety is essential. The process of transporting, receiving, preparing and cooking, needs the implementation of hygiene and safety practices. Gas safety is particularly vital as gas is the predominant source of energy used for cooking in the programme.

The directory consists of four sections, namely **Gas Safety; Safe Food Transportation; Food Safety and Waste Management**. Each section can be read alone (standalone). However, together they provide a holistic guide to safety principles throughout the food handling chain, up to and including waste management and disposal. Each section ends with a list of useful resource contact.

Gas is predominantly used for cooking thus exposing Volunteer Food Handlers and the rest of the school community to safety risks. The Gas Safety booklet needs to be coupled with training for maximum benefit.

The **Safe Food Transportation** tips are intended to assist in ensuring that all food delivered to schools is of acceptable quality. Safe transportation is important to ensure that food quality is maintained, that food products are not damaged during transportation and are thus safe to eat. Improper and unhygienic transportation of food can lead to food spoilage. Consumption of such food items may result in food poisoning with learners losing valuable learning time.

Food Safety addresses issues on the safe handling of food during storage and cooking to minimise contamination from surfaces, equipment and Volunteer Food Handlers.

Finally, the **Waste Management** booklet provides information on the proper handling of waste products to prevent air or land pollution.



Did you know?

A fresh fruit or vegetable is supplied daily as part of the NSNP meal



Did you know?

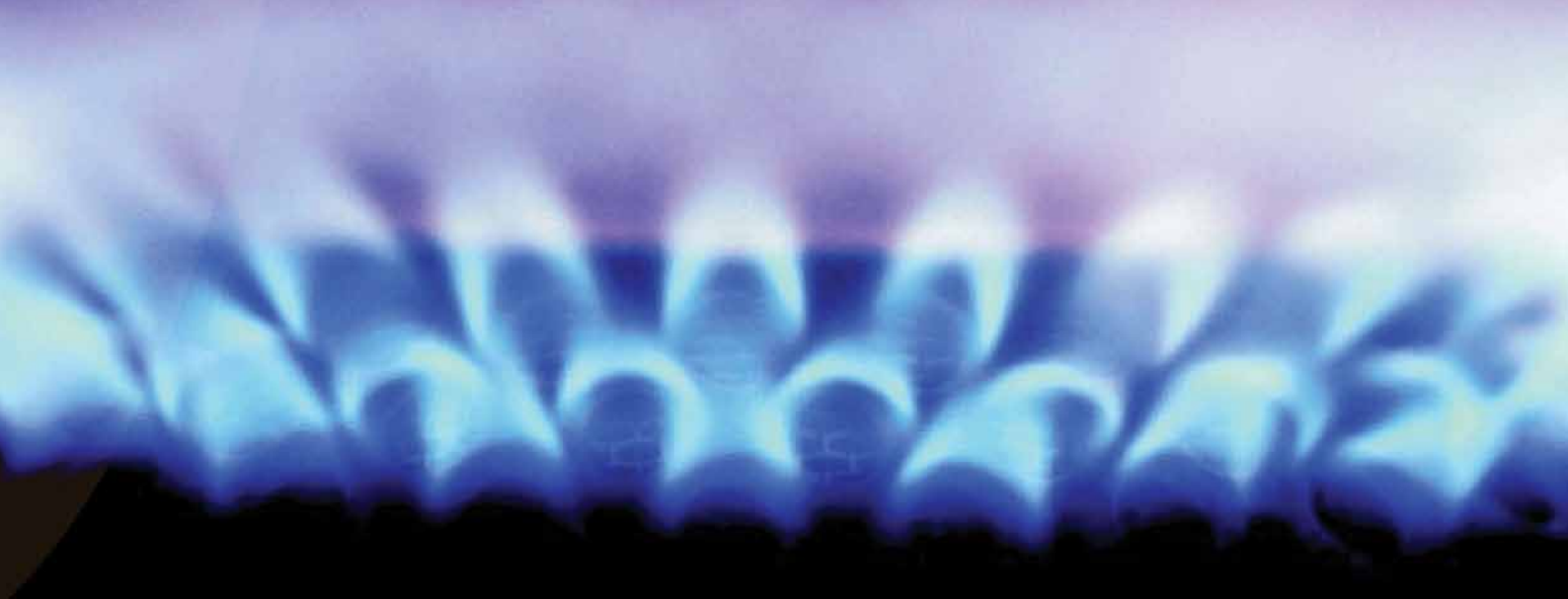
Quality Meals served to Learners is priority

2.

GAS SAFETY

GAS 8

GAS SAFETY



2. GAS SAFETY

2.1 What is LP Gas?

LP Gas stands for Liquefied Petroleum Gas, which is energy in a cylinder. It is flexible, fast, clean, portable and powerful. It is safely used in a wide range of applications like cooking, heating, refrigeration and lighting. The NSNP use it mainly for cooking.

Cylinder gas is available in a wide range of cylinders to fit a variety of appliances. The nearest dealer can refill cylinder sizes up to 6kg. With the larger sizes – 9kg and bigger, your cylinder will be replaced by the dealer with a full one when required. A dealer, who is a member of the LP GAS Safety Association, should fill LP Gas cylinders.



Please take note:

Working with LP Gas requires legal compliance for safety in the workplace:

It is mandatory for all appliances falling within the Safe Appliance Scheme to comply with the requirement of specifications and mandatory aspects detailed within the Occupational Health and Safety Act of 1993.

The Department of Labour appointed the Liquefied Petroleum Gas Safety Association of Southern Africa (LPGASSA) to verify whether LP Gas appliances, regulators and hoses are compliant with Safe Appliance Scheme.

There is a National Standard published by the South African Bureau of Standards (SABS) covering the Safety requirements of LP Gas appliances. The Standard number is SANS 1539. The title is 'Appliances operating on liquefied petroleum gas – safety aspects'. SANS 1539 is the only safety standard to which LP Gas appliances must comply.

Please note that only registered gas installers may undertake LP Gas installations. The following must be adhered to:


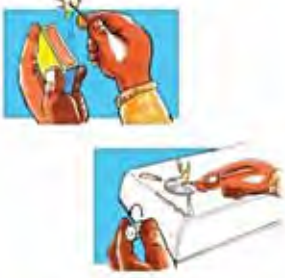

- No user shall use, or require or permit a gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect, or test any portable gas container, other than in compliance with relevant standards
- It is mandatory for appliances, hoses and regulators to be tested for compliance and for the manufacturers or importers of such products to obtain a Verification Permit from the LPGSASA.
- LP Gas installers are required by law to be registered.
- LP Gas installers are required by law to undergo specific training.



Remember:

When procuring gas equipment, provinces, districts and schools should ensure that all appliances have a certificate of compliance

2.2 Precautions and safety measures when cooking with Gas

Precautions when cooking with gas:		Safety measures:	
	Always make sure your window is open to allow fresh air into the room		If you smell gas turn the cylinder off
	Light the match first, THEN Turn on the gas to ignite the burners		If there are flames, protect your hands with a damp cloth
	Place the pot in the middle of the cooker plate		Do not re-use a cylinder that was in a fire.

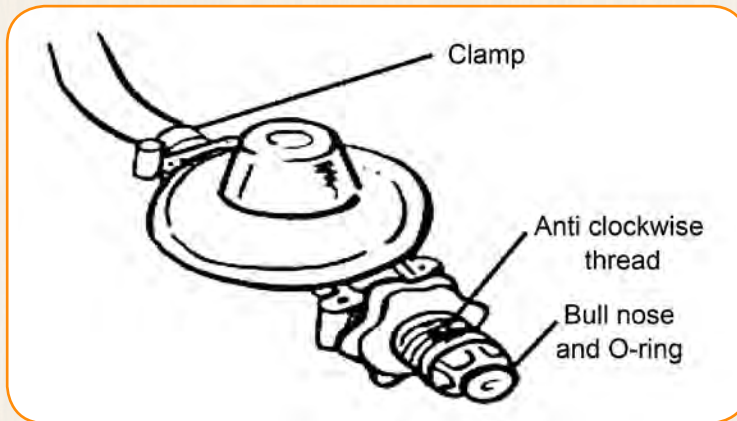
2.3 Working with Gas

2.3.1 Connection, Storage and Maintenance

- Do not put a leaking cylinder into your car
- Gas cylinders should be handled by accredited service providers
- The cooker/cylinder must be checked regularly
- New purchased gas stoves should always have a certificate of compliance
- The hand wheel on most regulators connects to the cooker in an anti-clockwise direction when screwing into the cylinder.
- All stoves and boiling tables used in schools connect to the cylinders using a regulator.



2.3.2 The regulator



- At the front of the regulator where it screws into the cylinder, is an “O” ring or shaped rubber seal. Check this regularly and replace if necessary.
- Check the hose (not a garden hose) between the regulator and the stove (boiling table). It must be secured with a small metal hose clamp at both ends.
- Check all the rubber seals (washers) and “O” rings and replace them regularly.



- Check all clamps and hose connections regularly.
- Check the hose for cracks and wear and damage by fats and oil regularly. If the connecting hose is worn it must be replaced.

2.3.3 Storage of the Gas cylinder:

- Never store your gas cylinder near a direct source of heat (such as stove, heater, fire)
- Cylinders in any public place such as a school must be stored outside the kitchen in a steel cage. Clear safety signage must be visible on the cages.
- Always allow enough time for your appliance to cool down after use, before touching it or storing it away.

2.3.4 When using the gas cylinder:

- Place your cylinder on a level surface



- Never leave a gas cylinder on a stove

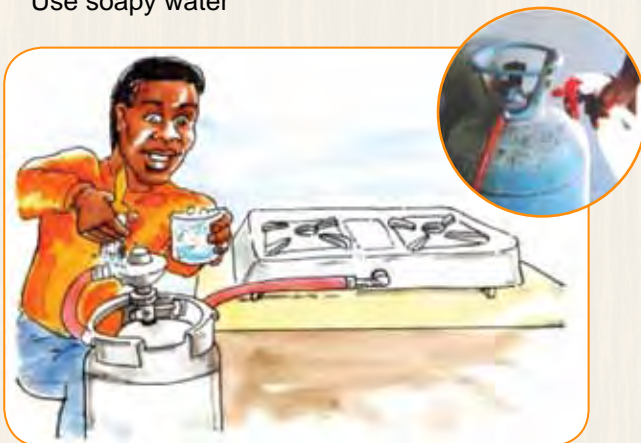


2.3.5 Check for leaking

- Never check for the leak with a naked flame!

Procedure:

- Use soapy water



- Take a cup of soapy water and a small paint brush and brush around all connections between the stove (boiling table) and the cylinder. An alternative is to put the soapy water solution in a spray bottle and then spray the liquid onto the joints. If there is even the smallest leak the soapy water will bubble, and indicate exactly where the leak is.
- Obviously if there is a leak, close the cylinder valve.
- Never try to repair a leaking cylinder yourself, it should only be checked by an accredited service provider.

2.4 Do's and don't's of cooking with Gas



No flammable articles close to stove



Flammable article too close to the stove



Hose away from walking path



A person can trip over the hose



Fire extinguisher placed in the kitchen



No fire extinguisher



One 19 kg gas bottle in a kitchen



Three gas bottles inside the kitchen



Window open for air



Closed window



Store gas cylinders in lockable steel cages with clear safety signage



Cylinders stored in the open

Schools are urged to familiarise themselves with the stringent requirements of working with gas. The following website will clarify and answer most questions relating to gas: www.lpgas.co.za. The contact details of LP Gas offices in the country are also included in this directory.

Useful Contacts

The Liquefied Petroleum Gas Safety Organisation of Southern Africa

Email: www.lpgas.co.za
Mail : P.O. Box, Pinegowrie
Street: 263 Kent Avenue, Randburg, JOHANNESBURG

Gauteng

Tel: 011 886 9702
Fax 011 886 9770

Cape Province

Tel: 021 531 5785

KwaZulu-Natal

Tel: 031 563 3535

Free State

Tel: 051 522 4363

CARELINE: 0860 102 003

Department of Labour

www.labour.gov.za

E-mail: webmaster@labour.gov.za
Mail: Private Bag X117, PRETORIA, 0001
Street: Laboria House, 215 Schoeman Street, PRETORIA
Tel: (012) 309 4000 / 5000
Fax: (012) 320 2059

3.

SAFE FOOD
TRANSPORTATION

SAFE FOOD
TRANSPORTATION

3. SAFE FOOD TRANSPORTATION

Purpose

This guide is intended to provide good practices for the transportation and receipt of food items in the National School Nutrition Programme (NSNP). Protecting the food from contamination during transportation will ensure that quality meals are served to learners. The guidelines also include information on warehouses.

This document may be used as a reference by the Provincial Education Departments (PEDs), including districts and schools, when procuring food for the NSNP. It provides specifications for the safe transportation of NSNP food. The guideline may form part of the bid specification document during procurement and adjudication processes.

The delivery of quality foodstuff plays an important part in serving quality nutritious meals to learners in the NSNP. The safe food transportation guidelines is intended for owners of warehouses and food transportation units that will assist in ensuring that all food delivered to schools is of acceptable quality. The safe transportation of food to schools is important to ensure that food quality is maintained; that food products are not damaged during transportation and are thus safe to eat. Improper and unhygienic transportation of food could lead to food poisoning or food spoilage. Transportation of food presents three types of hazards namely physical, chemical and biological hazards.

Good communication between the PEDs, food manufacturer/warehouses, service provider (transporter) and the schools (receiver) is essential. They share the responsibility for food safety in this food supply chain. Food manufacturers/warehouses and service providers must adhere to specific food safety control measures required for transportation of food items. The service providers of bulk foodstuff have the responsibility to deliver, as per tender/ quotation specification in provinces, districts or schools the specified quantity and quality of food items as stipulated in the approved menu of those schools that participate in the NSNP. With the intention to provide quality food to learners, it is important for the NSNP to promote and encourage proper handling of food.

Overall Responsibilities

The **transporter/distributor** involved in transportation of the bulk food items is responsible for the following:

- Application of adequate cleaning and sanitizing procedures of the transporting vehicle. Sanitizing includes using hot water and bleach to kill germs.
- Efficient and safe separation of food and non-food items (like equipment/books, chemicals).
- Provision of required temperature controls during transportation.

The **school** is responsible to ensure, upon receipt of the food delivery, that the food is safe to be eaten and has been maintained at proper temperatures.

The **service providers** must ensure that warehouses/manufacturers adhere to food items being stored in a hygienic manner and maintained at proper temperatures prior to transportation.

Packaging

Food items purchased from manufactures/main suppliers may not be repackaged or reworked. The supplier plays an important role in the quality of products provided and must adhere to food specifications. Food items to be delivered must also adhere to the specified requirements with regard to the labelling and packaging. All food items must comply with specifications for menu items available from the education website (www.education.gov.za)

The following labelling practices must be in place:

- Manufacturer's name must be clearly indicated with contact details;
- Quantity must be stated;
- Food items must have mixing and preparation instructions affixed;
- Items must have the original manufactures' expiry dates affixed. No handwritten information will be allowed; and
- All packaging must have the nutritional contents printed on.

Minimum Requirements for Transporting Foodstuffs

The Transportation unit (these include vehicles, trucks and trailers used to transport food) shall:

- Be designed in such a way that prevents cross contamination. Cross contamination is when bacteria is spread, that may contribute to food poisoning, from one object to another object; from one object to a person; or from person to person.
- Have a good design and be well maintained. Wall, floors, and ceilings shall be made of stainless steel, aluminum, or any other suitable material for transporting food. These internal surfaces must be easy-to-clean and smooth, dust proof, rust-free, non toxic, non-absorbent material without open joints or seams;
- Be well ventilated in such a way that decreases the temperature and humidity inside these units. Also have sufficient lighting;
- Be closed and covered from all sides as a way of preventing entry of insects, pests, and external contamination;
- The supervisor at the warehouse should inspect and ensure that transportation units are cleaned/ disinfected daily. No person shall transport food in a vehicle unless the vehicle is clean and has been cleaned to an extent that contamination of food is prevented;
- Not be used simultaneously for the transport of any person or any item that may contaminate the food;
- Be capable of keeping the transported food within the required temperature throughout the transportation period (hot food at 65°C and above, cold food at - 4° C, frozen foods at -12 and colder). Simply put, hot

food should be kept hot and cold food should be kept cold; and

- Have shelves or other means to separate foodstuffs and have adequate space to facilitate loading and unloading.

Non-prepacked food shall be transported in such a manner that it does not come into contact with the floor of a vehicle or the surface thereof that can be walked on or anything that can pollute the food. Sound food (safe and ready-to-eat food) should not be transported together with contaminated food or waste food, poison or any harmful substance, a live animal or any object that may contaminate or spoil the food.

Food transporters should follow the safe and hygienic practices applied during all stages of food transportation such as unloading/loading, delivery, inspection and receiving.

In addition to the above mentioned requirements, schools should take note when transporting food with a school vehicle:

- Use containers (containers may include trolleys, bags, boxes, trays) to separate raw and ready-to-eat foods; and different types of foods transported at the same time. Containers will differ depending on the type of food and its intended use;
- Containers in the vehicle should preferably not be used for transporting anything other than food;
- Where vehicles and/or containers are used for transporting anything other than food, care should be taken to clean and sanitize the vehicle and containers effectively between loads to avoid the risk of contamination;
- Where possible and necessary, line interior surface of vehicle and/or crates with plastic sheets that can be cleaned prior and after use;
- Never leave vehicle in the sun before or after food items purchased as this will increase temperature and cause fresh food to be spoiled; and
- Vehicles used to transport food must be kept clean and in good repair.

The following need to be highlighted with loading, packing and offloading of food:

Boxes should be well marked, for easy identification during offloading and receiving. Packages should be neatly stacked and arranged, with lighter packages placed on top of packages that hold heavier contents.

Packages should be packed in such a way that there is sufficient space inside the vehicles to move around, so that personnel do not use boxes as stepping stools, as this will crush or break food inside, which causes quality problems when the school receives them. No packages should be accepted when bent/damaged as this can affect the food quality.

Responsibilities of the Food Receiver at the school

Follow the guidance of the Delivery, Invoicing and Payments Section of the NSNP Implementation, Monitoring and Reporting Manual when receiving food, which stipulates that proper documentation should be filled in on receipt. The NSNP School Co-ordinator and/or administration personnel and/or volunteer food handlers should be available to inspect food when it arrives to check that food is safe and suitable for human consumption. Ensure that all proper food storage instructions are strictly followed, the staff can refer to the NSNP Safety Directory.

Monitoring

The Provincial Education Department and district offices shall have the right to monitor and make unannounced visits at premises, storage and delivery facilities and /or take samples of supplies to determine if storage, transport and delivery facilities are adequate and compliant. The assistance of the Department of Health will be requested where their expertise is required.

Useful Contacts

Department of Health

Mail: Private X828, PRETORIA, 0001

Street : Civitas Building, Corner Andries and Struben Streets, PRETORIA

Tel : (012) 395 8000/9000

Fax: (012) 395 8422

Also visit your local municipality for further information



4.

FOOD SAFETY

FOOD SAFETY

4. FOOD SAFETY

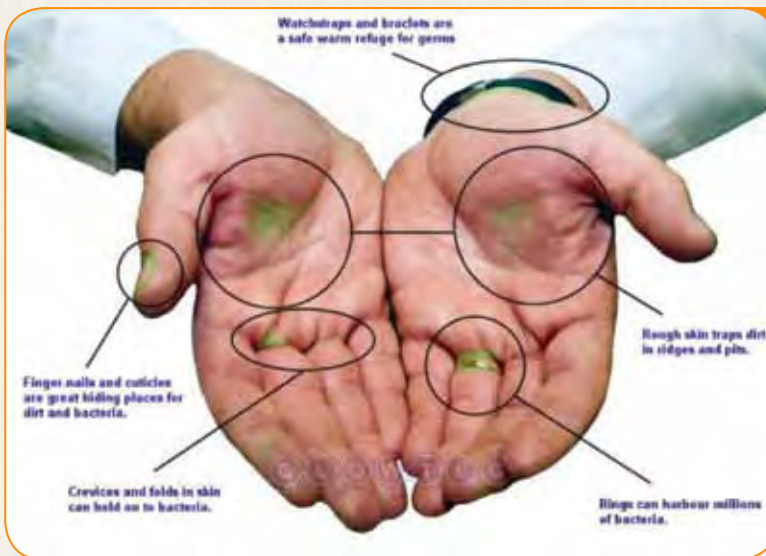
4.1 What is food safety?

Food safety is the handling of food in such a way that it is not exposed to germs.

4.2 What are germs?

Germs are very small organisms that cannot be seen by the naked eye, but can be seen under a microscope. Germs can settle on food, work surfaces, utensils, human skin and pets. Bacteria are the most dangerous germ when they get into contact with food. You cannot see, smell or taste bacteria in food. Bacteria and other germs spread very quickly if good standards of hygiene are not kept. Bacteria need food, moisture, heat and sometimes air to grow. Most bacteria are destroyed at temperatures above 60 ° Celsius. Bacteria are destroyed at 100 ° Celsius. Warm temperatures help the bacteria to multiply quickly. Cold food should be stored below 10° Celsius. Food poisoning is characterised by symptoms like stomach cramps, headache, diarrhoea, vomiting and fever. The affected person can die if they do not get medical attention. Following basic hygiene guidelines can prevent food poisoning.

4.3 Hiding Places for Germs



Did you know?

More than 200 known diseases are transmitted through food:

Source WHO

Source: www.glowtec.co.uk

Personal Hygiene

- Cover cuts with a water proof band aid or wear rubber or plastic gloves, to prevent transferring germs to food.
- Wear light coloured protective clothes (Apron and headgear).
- Cover hair completely to avoid hair from falling into food.
- Remove any jewellery as it can harvest germs.
- Fingernails should be kept short, clean and unpolished (no artificial nails).



Finger nails short with no nail polish

Handwashing

Wash hands before starting work, in between, AND after any break. To ensure cleanliness hands must be washed using antibacterial detergent, rinsed and dried.

Handwashing

- 1 Wet Hands
- 2 Soap
- 3 Lather for 15 seconds
- 4 Rinse
- 5 Towel Dry
- 6 Turn taps off with towel

Tips for when to wash hands

- after visiting the toilet
- before and after handling raw food (meat, fish, pastry, eggs, vegetables)
- after handling dirty equipment (including money)
- after handling delivery packaging
- after handling refuse
- after cleaning surfaces equipment
- after touching face and hair
- after coughing and sneezing

Kitchen Hygiene

To ensure safe food is served to learners, good kitchen hygiene should be a priority practice. The following principles are key:

- Clean and disinfect cutting boards and countertops.
- Wash utensils using hot soapy water
- Wash dish cloths in bleach (disinfectant)
- Keep the kitchen free from flies and cockroaches
- Wipe worktops as you work
- Good ventilation is necessary during cooking
- Sweep and mop kitchen floors every day
- Practice “clean as you go principle”

How clean is your kitchen?



Tips

Keep everything clean in your kitchen. Cleanliness is a major factor in preventing illness resulting from eating contaminated or unwashed food. Everything that touches food should be clean.

Kitchen Safety

The infrastructure and equipment used for preparing meals must also comply with hygiene and safety rules.

Kitchen accidents can be caused by:

- Creating unsafe conditions
- Ignoring hazards (picking up broken glass)
- Not paying attention
- Unsafe practices

Types of accidents/injuries	Cause
Cuts	Knives, cutters, slicers
Burns	Open flames, hot oils, steam,
Electric shocks	Appliances
Carbon monoxide poisoning	Gas leaks
Slips and falls	Slippery and cluttered floors
Itching, skin redness	Exposure to detergents and cleaning solutions

Preventing Accidents/Injuries

- Make sure you understand how equipment works before you use it.
- Unplug electric equipment before disassembling or cleaning.
- Make sure the switch is off before plugging in equipment.
- Do not touch or handle electric equipment, including switches, if your hands are wet or if you are standing in water.
- Use equipment only for the purpose intended.
- Stack pots and other equipment properly on pot racks so that they are stable and not likely to fall.
- Use extreme caution when opening cooking equipment - steam needs to escape.
- Where necessary wear safety shoes to protect from slipping, hot water and sharp objects.
- Allow only registered gas installers to fit and maintain your gas equipments.

How to use knives safely: preventing cuts & accidents

- Keep knives sharp. A sharp knife is safer than a dull one - it requires less pressure and is less likely to slip.
- When using a knife or cutting equipment, pay attention to your work.
- Cut away from your body when cutting or trimming.
- Use knives only for cutting - do not use for opening containers or for other tasks.
- Don't try to catch a falling knife. Step back and let it fall.
- Don't put knives in a sink, under water or any place where they cannot be seen.
- Clean knives carefully, with sharp edge away from you.
- Store knives in a safe place, such as in a rack or knife block, when not in use.
- Carry knives properly.

- Use the correct knife for the job you are doing.



Know the location of fire extinguishers and how to use them.

Food Handling

Care should be taken when handling food to ensure that food is not contaminated with germs

- Good personal hygiene is important for handling food
- Do not mix food with bare hands. Use forks, spoons or wear clean plastic gloves to avoid spreading germs from the skin to the food e.g. salads
- Use tongs, spoons, forks or plastic gloves to handle cooked food.
- Wash fresh fruits and vegetables under running water before eating
- Use safe water or treat it to make it safe
- Keep food covered



Food Storage

ALL food items should be stored on shelves, and not directly on the floor surface.

The space beneath the lowest shelf needs to be enough for effective cleaning. The recommended space is 30cm (a ruler's length) above floor level.

- Store dry food such as rice, maize meal and samp in air tight containers.
- Store bags of food above floor level.
- Do not leave food exposed to the sun.
- Keep detergents, chemicals, books and tools away from food stuffs.
- Keep raw food and cooked food separately.
- Practice the principle of "first in first out" (FIFO).
- Foodstuffs should be properly labeled indicating ingredients, name and address of manufacture, expiry date and batch number.

Do's and don't's of Food Storage



Store food in the cupboard or in shelves



Food must never be stored on the floor



After opening packaging, store food in labelled air-tight containers



bags/containers must not be left open



Separate raw and cooked foods
keep food covered



Keep detergents and chemicals away from foodstuffs

CONTAMINATED FOOD IS NOT FIT FOR HUMAN CONSUMPTION

ALWAYS CHECK EXPIRY DATE

Storage of vegetables:

Sort vegetables before storing them and remove bruised ones

- Keep all vegetables in a cool room.
- Store food in a dry, well ventilated area.
- Frozen vegetables should be kept frozen until used.
- Frozen vegetables should be cooked when they are still frozen.
- Dried vegetables should be stored in an airtight container and stored in a cool dry place.

Storage of tinned food:

- Store in a clean, cool, dry, well lit and ventilated place.
- Tins with dents should not be used, they must be thrown away.



Never buy damaged tins as the food may be spoilt

- Throw away bulged, rusted or swollen tins

PEST CONTROL

Waste should be handled and stored in a manner that will not contribute to contamination through the presence of pests

- Pests (flies, cockroaches, and rats) carry bacteria through the kitchen and onto food, thus creating the potential for food poisoning. They also spoil and damage food stocks, which can become very costly for school feeding.
- Stop pests coming in the kitchen by sealing external holes and cracks, and where possible use fly screens on windows.
- Take away the pests' food and water by maintaining a high standard of cleanliness through good hygiene practices. Remember, pests like warm, dark areas such as below sinks and hot water systems and cupboards. Make sure you don't have any leaking pipes or taps

- Store all foods in containers with tight fitting lids.
- Use registered pest control operators for pest treatment.
- There should be no sign of pest infestation in the kitchen (e.g. rodent droppings).

REFUSE STORAGE AND DISPOSAL

- Store waste in a refuse bin (where practical and possible, lined with a garbage plastic bag) with a tight fitting lid.
- Refuse should be taken out when full and at the end each cooking session.
- Clean the bin every day.



! Do not burn waste. It causes air pollution.

USEFUL CONTACTS

Department of Health

Mail: Private X828, PRETORIA, 0001

Street : Civitas Building, Corner Andries and Struben Streets, PRETORIA

Tel : (012) 395 8000/9000

Fax: (012) 395 9019

Also visit your local municipality for further information

5.

WASTE MANAGEMENT

WASTE
MANAGEMENT

5. WASTE MANAGEMENT

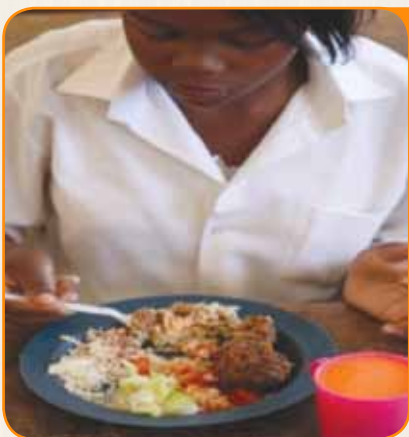
Waste from food preparations is a reality and a general waste build up is produced in the running of schools. Using this booklet will contribute to safer waste management practices in schools. The NSNP has three objectives: to enhance learning capacity through school meals; to strengthen nutrition education in schools; and to promote sustainable food production initiatives in schools through the management of the programme in an environment friendly manner.



Did you know?

There are over 8 million learners on the programme. Fish is served at least once a week, resulting in 1.2 million canned fish containers that can either be thrown away or reused and recycled

This booklet is intended for educators, learners and their families with the aim of raising awareness of poor waste management disadvantages and the benefits of integrated waste management. All members of the school community are encouraged to adopt an active role in planning and implementing strategies to **reduce, re-use and recycle** waste.



Did you know?

The South African Constitution states, *“Everyone has a right to an environment that is not harmful to their health or well being”*.

What is waste and who creates it?

Waste is defined as rubbish and unwanted things that is thrown out of our homes, offices, schools and industries every day. We all generate waste when we throw away packaging, food and other things.

Waste can harm us!

All waste can harm us and our environment if it is not properly managed

Some of the harmful short-term effects of unmanaged waste are:

- The environment looks bad and smells bad
- Flies, rats and other pests breed and spread diseases
- Plants, animals and humans are poisoned
- The air and water becomes polluted

Long-term harmful effects of waste include:

- Poisonous chemicals stay in the environment and do not breakdown
- Damage to our natural resources like soil and water
- Cancer and birth defects

What is waste management?

Waste management is the collection, transport, processing, recycling or disposal and monitoring of waste material. Managing waste is generally done to reduce possible negative effects on health, the environment or the beauty of a place. We all need a clean and safe environment to live healthy lives. About 80 percent of the waste filling our landfills could be recycled and used to manufacture new products.



Did you know?

It is estimated that the total amount of domestic waste in South Africa is 15 million tons a year! Most waste is taken to already overflowing landfill sites.

Why is it important to manage waste? What are the benefits?






By using materials wisely at schools you can reduce the need for raw materials. General waste in schools include plastics, cans, food scraps, paper and glass. Waste ends up in landfills (disposal sites with a permit from relevant government departments', where dumping rubbish is allowed). Reduced waste will lesson pollution and has the potential to create an income from the sale of recyclable materials.

Management of waste control pests and the spread of harmful diseases. When we properly manage and dispose waste we eliminate conditions where rodents and insects can breed and multiply. We also eliminate burning and burial methods that could pose long term and dangerous health risks.

Waste in the NSNP



The following table indicate waste from the NSNP that can be reduced, re-used and recycled

Types of waste	Food scraps	Beverage/ Food Cans	Paper (magazines, newspapers, office papers)	Glass	Plastic (bags, bottles, containers)
					
	↓	↓	↓	↓	↓
Disposal of waste	Compost	Collect-a-can agents	Recycling agents	Recycling agents	Recycling agents
	↓	↓	↓	↓	↓
End use of waste	Vegetable gardens	Fund raising for NSNP in schools	Reuse of product and clean environment	Reuse of product and clean environment	Reuse of product and clean environment

REMEMBER THE 3 R'S- **R**EDUCE, **R**E-USE, **R**ECYCLE !!!

WHAT CAN THE SCHOOL COMMUNITY DO TO INCREASE RECYCLING AND REDUCE WASTE? HOW TO GET INVOLVED?

YOU CAN DO A LOT: Waste can be **Reduced, Reused and Recycled**. This is the preferred approach to waste management since, once waste is produced, it is costly to clean up afterwards.

REDUCE Minimise waste

- Shop carefully: buy in bulk to reduce the amount of packaging required.
- Choose returnable or reusable containers. Choose durable equipments and materials that will last a long time. Avoid disposable plates, cups and cutlery.
- Buy products that can be recycled. Shop with re-usable bags to avoid using new plastic bags each time.
- Use cloth dishtowels instead of paper ones.
- Print only when necessary, using the double sided option, also photocopy on both sides of the paper.

RE-USE Where possible re-use a product. If you can't use it again, find somebody who can.

- Use plastic packets and containers in which products and containers are sold to store things. Wash and dry plastic bags for re-use.
- Staple together office paper that has only been written on one side, for scrap paper, before recycling.
- Repair things rather than throw them away. Find alternative uses for materials i.e. cans re-used as cups or to make the environment beautiful.

RECYCLE If a product cannot be re-used, then recycle it. Firstly **separate waste at source**; this means to separate waste where it is produced, either at work, at home or at school rather than waste being sorted at landfill sites where it is wet and mangled and it costly and difficult to recycle.

Energy Saving Tips - The production of forms of energy such as electricity takes up precious resources. It is therefore important to use energy wisely. Energy saving can reduce the school's electricity bill. Do the following to reduce energy:

- Use energy saving light bulbs. Switch off lights and computers, if classrooms are not in use. Switch lights off at night.
- Switch geysers off during long weekends and holidays.

Where to start?

Find out if there is a local collection point for glass, plastics, cans, paper, oil, e-waste or tyres – and use it.

Find out if there is a sidewalk pick-up service in your area – and use it. Help to start a school or community collection programme.

Ask the following questions to recycling companies

- Do you collect?
- Do you supply bags or drums?
- How much do you pay?
- What do you take?
- Do I need to clean?
- Where can I deliver?

COMPOSTING


This is nature's way of recycling! Composting enriches and improves the quality of the soil.

Step 1 Select & prepare a site.

	
<p>Use no enclosure at all. Simply pile the materials up, keeping them in a fairly dense heap</p>	<p>Construct a wooden bin with old wooden material or pallets</p>

Step 2 Choose the right materials to put in your compost site.

Shred materials into small pieces, the compost process goes faster! Then add materials. Water ingredients and mix often. The pile should be kept moist but not too wet. Turn the pile often.

DO'S	DONT'S
	
<p>Vegetable & fruit peels, citrus rinds, egg, peanut & nut shells, stalks, wood ashes, horse & cow manure, leaves, apple cores</p>	<p>Meat, fish, fat, bones, poultry, vegetable oils, dairy products, cat/dog waste, invasive weeds, plastic, glossy magazines</p>

Step 3 Ready to use

Compost can be ready anywhere from two weeks to two years. Compost is ready to use when it has turned dark brown.



RECYCLING IN ACTION!



Used fish cans buried in the soil to enhance soil fertility.



Redone desk and wooden chair



Handbags made from carrying plastics



Flag mat made of carrying plastics



Play items from used yoghurt tubs and can and steel items.

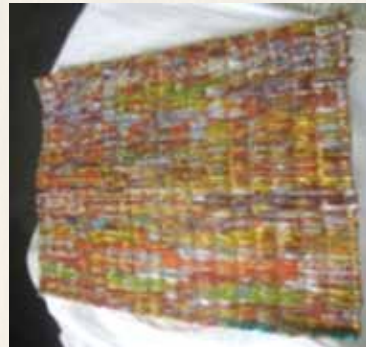


Table mat made from sweet wrappers



Car rim used as a braai stand



Charcoal made from egg holders



Egg holders used as to hold scissors



Used paper plates used to teachers numbers

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	<p>Collect-a-can 011 466 -2939 www.collectacan.co.za</p>		<p>The Glass Recycling Company 011 803 0767 www.theglassrecyclingcompany.co.za</p>
	<p>Mondi Recycling Gauteng/KZN 0800 022112 W. Cape 021 931 5106 www.paperpickup.co.za</p> <p>Nampak Recycling 0800 018 818 www.nampak.com e-mail Recycling@za.nampak.com</p> <p>Sappi www.sappi.com Gauteng: 082 876 7468 W. Cape: 083 227 1379 Mpumalanga/Limpopo: 083 234 6217 Other provinces: 083 234 6284</p> <p>Paper Recycling Association of SA 011 803 5063 www.prasa.co.za</p>		<p>Plastics Federation of SA 011 314 4021 www.plasticsinfo.co.za</p> <p>Buyisa-e-Bag 011 452 0414 www.buyisaebag.co.za</p> <p>PETCO 0860 147 738 www.petco.co.za e-mail: info@petco.co.za</p> <p>Polystyrene Packaging Council 012 259 0554 www.polystyrenepackaging.co.za e-mail: info@polystyrenepackaging.co.za</p>
	<p>e-Waste Association of SA 011 312 3605 www.ewasa.org e-mail: info@ewasa.org</p>		<p>ROSE Foundation 021 448 7492 www.rosefoundation.org.za e-mail: usedoil@iafrica.com</p>
	<p>National Recycling Forum Tel: 011 675 3462 www.recycling.co.za</p>	<p>TYRES: Tyre Recycling Association 011 792-0359 BATTERIES: Fry's Metals 011 827-5413 www.frys.co.za INTEGRATED WASTE EXCHANGE: IWEX BUILDERS' RUBBLE & COMPOSING: Contact your local authority</p>	
<p>Extract from Ways with Waste, Central Branch, Institute of Waste Management of SA</p>			

6.

CONCLUSION

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It is important to prepare food in clean and safe premises and in a clean and safe manner. Remember to allow only registered gas installers to handle your gas installation. Also keep the preparation area and all utensils clean to prevent food poisoning and to ensure that we serve our learners, not only nutritious food, but safe food. Let us also be proactive in ensuring that the waste from NSNP is safely handled and does not harm the environment



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The Institute of Waste Management Southern Africa. www.iwmsa.co.za

Integrated Waste Management. www.environment.gov.za



The NSNP Safety Directory