



**Western Cape
Government**

Local Government



Fire & Life Safety Education

CoCT Disaster Risk Management Centre

Rodney Eksteen
28th February 2013

Goal & Overview

Overview

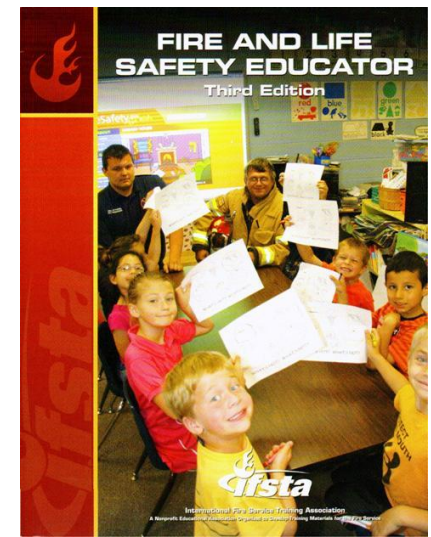
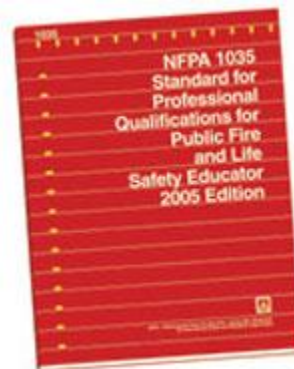
- Fire & Life Safety Educator training
- US Fire Administration (FEMA) 5 step planning process
- Development of the NFPA Learn Not To Burn Preschool South Africa fire and burn prevention programme

Goal

- Motivate organization's leaders to understand that prevention programmes require full organizational commitment that includes time for personnel to work on the program, resources required to buy materials and equipment, and most importantly, visible program support from all department members and other local decision makers.

Fire and Life Safety Educator (NFPA 1035)

- The 2011 (3rd) edition of Fire and Life Safety Educator provides the knowledge to support successful performance as a fire and life safety educator as addressed in the NFPA® 1035 standard
- This standard identifies the levels of professional performance required for public fire and life safety educators, public information officers, and juvenile firesetter intervention specialists.
- The manual focuses on **all-risk prevention** enabling the educator to apply knowledge and skills to many different areas under the “umbrella” of injury prevention and control.



Community Risk Reduction & Integrated Prevention Interventions

Community Risk Reduction (CRR) is the process of preventing the occurrence of fire, injury and property loss. Public education is the foundation of reducing community risk, effective and sustained success is best realised through the use of combined prevention interventions.



Education

Teaching people about a risk issue and how to prevent it. Enlightening decision makers about comprehensive risk solutions.



Engineering

Using technology to create safer products or modifying the environment where the risk is occurring.



Economic Incentives

Financial incentives that promote the use of safer practices and products



Enforcement

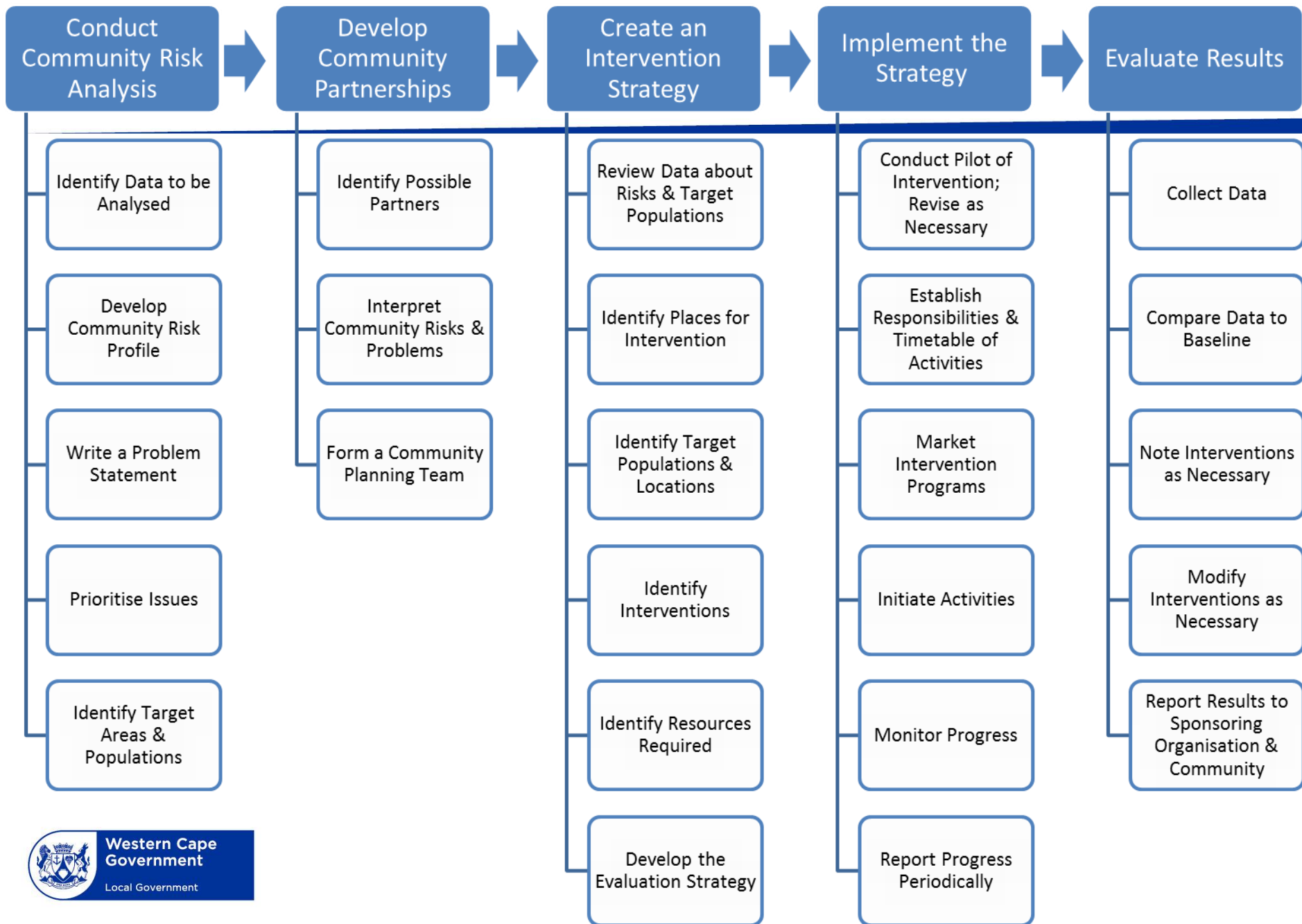
Rules that require the use of a safety initiative.



Emergency Response

Rapid and effective response to the occurrence of incidents

Integrated Intervention Strategies



Development of Learn Not To Burn Preschool South Africa



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National Burn Reference Group

- Burn Foundation of Southern Africa
- Fire and Emergency Services
- Paraffin Safety Association
- Child Accident Prevention Foundation (Childsafe)
- Medical Research Council
- UKUVUKA
- UNISA Institute of Social and Health Sciences
- NFPA
- Red Cross Children's Hospital
- Johnson and Johnson Burn unit at the Baragwanath Hospital in SOWETO.
- Community Members (JHB & CT)
- Dept of Education
- Dept of Health

Fire & Burn Prevention

- The pre-school age group were high risk and vulnerable to fire and burns
- Primary and secondary prevention approaches have the ability to prevent burn related injury from occurring, in addition to increasing the application of correct first aid, which can significantly reduce the “Burden on Disease and Injury” caused by fires, burns and scalds. (Liao CC, Rossignol AM. 2000)
- Fire and burn prevention programmes using educational messages presented by teachers in a preschool environment have shown to significantly improve knowledge and change behaviour practices of young children (McConnell F, Leeming, C, & Dwyer O. 1996)
- Interestingly, in the above study, 3 year olds showed the greatest change in the 3-5 year age group.

Fire & burn prevention curriculum for Pre-schools

- ECD centres are an important asset in the community
- Appropriate mechanism for delivering fire and burn prevention interventions.
- Intervening at the ECD centre level is a cost-effective and time-efficient way of reaching a large number of children in one place
- A delivery system was already in place



Specific Causal Factors

Through information that was available, community involvement and personal experience some of the main causes of these burn injury events were identified. Priority was given to these main causes:

1. Spilled hot liquids from table
2. Spilled hot liquids from pot on stove
3. Child left unattended and fire begins (unsupervised)
4. Shack fire starts, child does not or cannot escape
5. Paraffin (kerosene) stove / candle tips / falls over and starts fire
6. Open flames of stoves causes clothing fire
7. Stove not in proper working order
8. Caregiver under influence of alcohol
9. Criminal action to start fire (intentional)

While these priority events were not an exhaustive list, they provided an accurate picture of the common risks and main causes of burns in high risk communities.

Injury Chain of Events

Specific Event	Education	Engineering	Enforcement	Economic Incentives	Emergency Response
Poor family build shack near urban areas for work opportunities					
Purchase cheap paraffin stove to cook food					
Cover interior of shack with cardboard and newspaper to insulate from cold					
Combustibles contact open flame of stove					
Fire spreads rapidly to other combustibles					
Children left unsupervised and do not escape					
Child's clothes catch fire and is severely burnt					
Adult treats burn wound with traditional remedy (toothpaste, soap, metal cleaner etc)					
Delayed transport to hospital					
Child dies from burn wounds					
Family rebuild shack as it was before					

The highest priority given to the most frequent cause. Groups were given a main cause to determine or hypothesise the injury chain of events.

Message Development

- Messages were then developed emphasizing the positive action or desired behavior to be followed.
- Messages were then tested against the characteristics of the 3 to 5 year old child. Elements of these characteristics included:
 - Linguistic readiness (will they understand the message)
 - Emotional readiness (as stress levels increase, decision making abilities decrease)
 - Cognitive readiness (can they reason)
 - Physical readiness (in terms of age / ability)
 - Culturally appropriate (within value set they've been raised with)
 - Language appropriateness (idiomatic language / dialect)
 - Child's locus of control (what they can / cannot influence)

Key Messages

Primary Prevention Messages

- 1) Stay away from hot things - they can burn you.
- 2) Stay away from hot water - it can burn you.
- 3) Matches and lighters can burn you - leave them alone.
- 4) Stay away from paraffin... it can hurt you.
- 5) Stay away from flames and fire – they can burn you

Secondary Prevention Messages

- 6) If your clothes are on fire - stop, drop and roll!
- 7) Cool a burn with cool water.
- 8) If your house is on fire, go out and stay outside!
- 9) The fire fighter is a helper.

Learn Not To Burn

The Learn Not to Burn® Preschool Programme South Africa

Teacher's Guide

A Firesafety Education Programme of the NFPA® for Preschoolers

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The mission of the international nonprofit NFPA is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training and education.



Western Cape Department of Health

CHILD ACCIDENT
PREVENTION FOUNDATION
OF SOUTHERN AFRICA



Disclaimer

The South Africa version of the Learn Not to Burn® Preschool Programme was adapted for use in South Africa by the National Burn Prevention Reference Group in South Africa and is based on the original version published in the United States by the National Fire Protection Association (NFPA). The South African version was adapted to reflect South African customs and is not intended for use outside of South Africa. In the case of the cool a burn letters, messaging is not consistent with the position of the NFPA. The NFPA advises that a burn be cooled for 3 to 5 minutes. In addition, in the "Fix your escape" letter to be taken home to parents and caregivers, in item number 4, the messaging is not consistent with the position of the NFPA. The NFPA advises the following: "If you have security bars on your windows be sure that one window in each sleeping room has a release device that can be used to unhook the bars from inside of your home without a key." The NFPA cannot be responsible for any information, teaching, or practices not consistent with its original published work. For more information, contact NFPA at 1-617-770-3000 or visit the NFPA website at www.nfpa.org.

For more information on the National Burn Prevention Reference Group, contact the Child Accident Prevention Foundation of Southern Africa at 021 665 5208 or visit the CAPPSA website at www.childsafe.org.za.

Learn Not to Burn® Preschool Programme South Africa



Key Principles

Uses various modalities - mix of stories and song, demonstrations and experiments, discussion and active learning to teach and evaluate

Uses existing knowledge and experience - Invites children to share and learn from their own stories and experiences.

Active learning - Encourages children to act out the stories and songs and to practice life-saving behaviors like stop, drop and roll.

Takes the message home - Encourages children to share what they are learning with their parents and caregivers and reinforces these fire safety messages at home.

Day 1

Stay away from hot things.
They can burn you.



Learning objectives

Knowledge

- The learner can correctly identify hot things including hot liquids, steam and things that can become hot (e.g. stoves, heaters, irons, kettles).
- The learner understands that hot things can burn.
- The learner recognises the danger of touching or playing near hot things.

Behaviour

- The learner will avoid touching or playing near hot things.

What you need to know

Learners can get burnt in many different ways:

1. **Contact burns** - from touching hot things (e.g. hot plate, oven, heater)
2. **Scalds** - from spilling or touching hot liquids or steam (e.g. boiling water or a hot water tap)
3. **Flame burns** - from matches, candles, fire or other flames or setting clothing alight
4. **Electrical burns** - from touching live electricity (e.g. putting fingers in an electrical socket)
5. **Chemical burns** - from touching or swallowing strong chemicals (e.g. acid or paraffin)
6. **Sunburn** - from spending too long in the sun without protection

Learners need to recognise the dangers in both their home and school environment. Teach them not to touch hot things. Make sure learners are aware of things that can get hot such as electrical appliances or cooking pots.

What you can do to help

1. Use the fire safety checklist on page 74 to make sure your school is safe for learners.
2. Encourage parents and caregivers to apply the following safety rules:
 - Never leave children alone. Children are naturally curious and accidents happen easily.
 - Keep hot things away from children and children away from hot things. Teach children to stay at least ONE METRE AWAY from hot things such as the stove, braai or fireplace.
 - Keep children out of the kitchen when you are cooking.
 - Warn children not to touch (or turn on) electric appliances that can get hot such as the heater or iron.
 - Cover electric sockets with a child safety plug, to prevent children sticking fingers or other objects into the plug holes and getting electrocuted.
 - Keep matches and lighters, paraffin and other chemicals safely up and away from children.

Preparing for class

- Make copies of Worksheets 1, 2 and 3 for learners.
- Use Worksheet 3 to prepare warning signs for Activity 4.

Activities

1. Things that get hot (Display and discussion)

Set up a display table with everyday objects that can become hot (e.g. iron, kettle, toaster, candle, empty box of matches). Make up word cards for each object to extend older learner's literacy skills.

Safety tip: Make sure the display table is far from any plugs so that the appliances can't be switched on by mistake. Make sure the box of matches is empty.

Hold up each object and ask the following questions:

- What is this! (Introduce the word card)
- What do we use it for!
- Can it get hot! (Yes)
- Is it safe to touch! (No)
- Why not! (It can burn you)

Brainstorm other examples of things that can become hot e.g. stove, heater, light bulb, cup of tea, etc., and encourage learners to repeat the core message: Stay away from hot things.

Encourage learners to share their own experiences:

- Has anyone else ever touched something hot!
- What was it! How did it feel!
- How can we protect ourselves! Stay away from hot things!

2. How do I know if something is hot? (Class discussion)

Encourage learners to think of their different senses:

- I see – steam rise, red hot electric plate, flames
- I hear – sounds from a boiling pot/kettle
- I smell – something cooking/burning
- BUT I NEVER, NEVER TOUCH something that might be hot

Remind learners that we can't always tell if something is hot just by looking – so it is best to stay away from things that can get hot and ask an adult to help you.

3. Stay Away song

Sung to the tune of *Frere Jacques* (*Vader Jakob* or *Umntakwethu*)

I don't play, with hot things
I don't touch, I don't play
They can burn me
They can burn me
So I stay away
Stay away

Teach learners the words to the song and make up your own actions (e.g. wagging fingers, shaking heads, crossing arms).

Now add verses of your own to spell out some of the hot things children shouldn't touch. For example:

I don't play, with the stove...
I don't play, with the iron...
I don't play, with a kettle...

4. Identifying dangers at school (Class activity)

Walk around the classroom/school with the learners. Ask the learners to tell you all the things that can become hot. (including electrical sockets). Mark each danger with a warning sign (red triangle).

Each time, ask the learners:

- Is this safe to touch! – No!
- What should you do! - Stay away from hot things. They can burn you.

When you have finished, count the number of "hot things" you found. Then repeat the action song.



5. Consolidation

Hand out copies of *Worksheet 1: Stay away from hot things!*

First ask the learners to name what each picture is in the worksheet. Then ask learners to draw a CROSS through each thing that is NOT safe to touch.

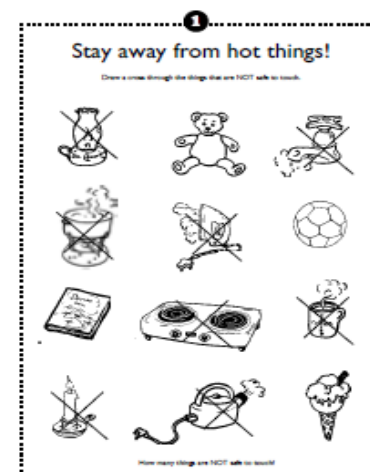
Some children may not recognise that the two-plate stove is hot. Use this as an opportunity to reinforce the following message: We can't tell just by looking if something is hot or not. It is better to be safe than sorry. Don't touch anything that can get hot.

Younger children will enjoy playing the **sorting game**: What's hot and what's not. Collect some objects that can become hot and some that cannot. Put the objects in a box and sort them into two piles as follows. Pull them out one-by-one and ask learners: Is this hot or not!

6. Homework

Hand out copies of *Worksheet 2: Home safety checklist*.

- Ask learners if they know what each picture stands for.
- Then ask learners to work with their parents or caregiver to identify all the hot things that they have in their home.
- Ask learners to bring the completed worksheet back to school the following day. (see: extension exercise 4)



Extension exercises

1. Word cards (Literacy)

Use word cards to build learners vocabulary and pre-reading skills. Make word cards for each of the objects on the display table. Work with individuals or small groups to match the words to the objects, and/or make 2 sets of cards. Place the cards from one set next to each object. Then ask children to find the matching word from the other set of cards.

Multilingual: Introduce the words: Danger! Gevaar! Ingozi!

2. Fantasy play

Encourage safe play with appliances in house / fantasy play area. e.g. "Be careful you don't burn yourself on the pot." "Don't touch the iron. It's hot!"

3. Make your own warning signs (Numeracy / Life skills)

Hand out copies of *Worksheet 3: Warning signs*.



- Discuss how triangles are used as warning signs on the roads and encourage children to look out for triangles in their environment.
- Ask learners to colour in the triangles (red) and cut out the shapes.
- Ask learners to take the warning labels home so that their parents and caregivers can stick them on things that can become hot and burn.
- Use the worksheet to build learners' numeracy skills by discussing concepts such as: how many, big and small.

4. Home safety checklist (Numeracy)

The following day, ask learners if they filled in the home safety checklist with their parents and caregivers. Ask for volunteers to share their findings with the rest of the class.

AND/OR

- Use the pictures from the home safety checklist to make a chart as shown in the example below.
- Point to each picture and ask learners to put up their hands if they have one of these things at home.
- Count the number of learners and put ticks to show the number of children next to each picture. Ask children to count the number of ticks and then write in the totals.
- Use the chart to explore concepts such as: How many! more, less, most, least.

	✓✓✓✓✓	5
	✓✓✓✓✓✓✓✓	8

Reinforce the key message: Stay away from hot things - they can burn you.

Stay away from hot things!

Draw a cross through the things that are NOT safe to touch.



How many things are NOT safe to touch?

Day 6

If your clothes catch on fire - Stop, drop and roll!



Learning objectives

Knowledge:

- The learner knows what to do if his or her clothes catch fire.
- The learner understands that stop, drop and roll is used only when clothing is on fire, not in other hazardous fire situations.

Behaviour:

- The learner can demonstrate how to stop, drop and roll correctly.

What you need to know

The stop, drop and roll procedure is used when clothing catches on fire. It is important to act immediately to put out the flames and lessen the burn injury.

If someone's clothes catch fire, he or she must:

STOP Not run

DROP Lie down on the ground and cover the face with the hands

ROLL Roll over and over to put out the flames.

Young children often get confused about WHEN to stop, drop and roll. Children should only stop, drop and roll when clothing catches fire, not when they burn a finger or when the house catches on fire.

Make time for children to practice this procedure during music and movement and outside play.

Help children with physical disabilities, by wrapping them in a woollen blanket or carpet to put out the flames. Do not use a duvets or nylon blankets as synthetic fabrics will melt in the flames and stick to the child's skin.

Bright idea

Make a "flame" out of felt or wool. You can then stick this on learners' clothing to bring this activity to life. Then encourage learners to keep rolling until the flame falls off.

Preparation

Make copies of *Worksheet 9*.

Activities

1. What should you do if your clothes catch fire? (Discussion)

Ask children if they remember the story you read in Lesson 5. What happened to Mandla when he was playing at the campfire? His clothes caught on fire. Luckily Mandla knew what to do.

Use the picture and word cards to show learners how Mandla put out the fire.



stop



drop



roll

2. Stop, drop and roll (Demonstration and practice)

Use a gym mat, mattress, carpet or soft grass to roll on.

A. First show the learners how to stop, drop and roll using the following instructions. (Educator demonstrates each step of the process)

If your clothes catch fire:

Stop – don't run

Drop – Lie flat on the ground. Then cover your face with your hands.

Roll – Keep rolling over and over until you have put out all the flames.

B. Then choose a capable volunteer to demonstrate stop, drop and roll as you tell them what to do.

Explain why:

Why do we stop, drop and roll? – to smother the flames

Why do we cover our faces? – to protect us from the smoke and flames

C. Review:

Ask learners: Do you remember WHAT to do when your clothes catch fire? (Stop, drop and roll)

D. Practice

The whole class practices Stop, drop and roll one after another.

Help learners who are struggling to get it right (e.g. remember to cover your face and keep legs straight). Applaud learners as they complete the exercise.

3. Consolidation

Hand out copies of *Worksheet 9*:

If your clothes catch on fire... stop, drop and roll!

Ask learners to:

- trace over the letters to "write" the words: stop, drop and roll AND/OR
- cut out the pictures and paste them in the correct order AND/OR
- cut out the pictures and words. Then match the words to the pictures and paste the pictures and words in the correct order AND
- take the worksheet home and teach their family and friends to stop, drop and roll.

Matching game

For younger learners, make your own matching game. Make a copy of the worksheet and stick it on cardboard. Colour in the pictures. Then cut out the picture and word cards.

Ask learners to:

- match the words and pictures
- put the pictures in order from left to right.

4. When should you stop, drop and roll? (Game)

Ask learners:

- What do you do if your clothes catch fire! [Stop, drop and roll]
- When do you stop, drop and roll! [When your clothes catch fire]

Explain that this is the ONLY time they must stop, drop and roll:

They must not stop, drop and roll if the house is on fire or they burn a finger on the stove.

They must only stop, drop and roll if their clothes are on fire

Now play Simon Says to reinforce learners understanding of when to stop, drop and roll:

- If Simon says your shirt/pants/jersey is on fire, learners must stop, drop and roll
- If Simon says your house/car/TV is on fire, learners must not stop, drop and roll, they must get out and stay out.

Play this game again during Lesson 8, so that learners are clear about when they must get out and stay out and when they must stop, drop and roll.

5. Homework

Explain that many adults don't know what to do when their clothes catch fire. So for homework, you would like learners to teach their families to stop, drop and roll. Review the following day and congratulate learners who completed their homework.

If your clothes catch on fire...



roll



drop



stop

Use the pictures and words to match the correct order.
Then match the words to the pictures and paste the pictures and words in the correct order.

Extension exercises

1. Physical Education

Practice stop, drop and roll during physical education or outside play (if you have a safe, grassy area for children to roll in). Blow a whistle to have the learners start rolling and blow it again for them to stop. Also have children practice stop, drop and roll in a confined area such as a classroom, so they learn to roll in a realistic setting.

2. Prevention (Discussion)

Ask learners:

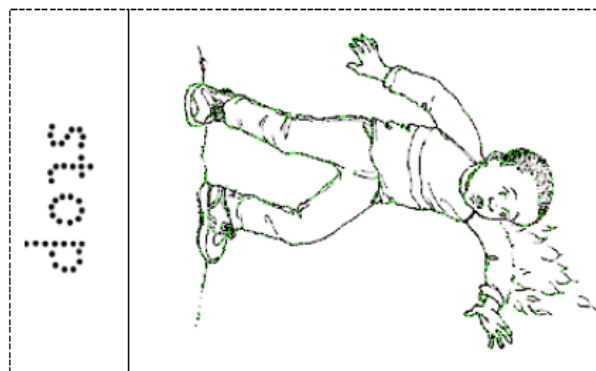
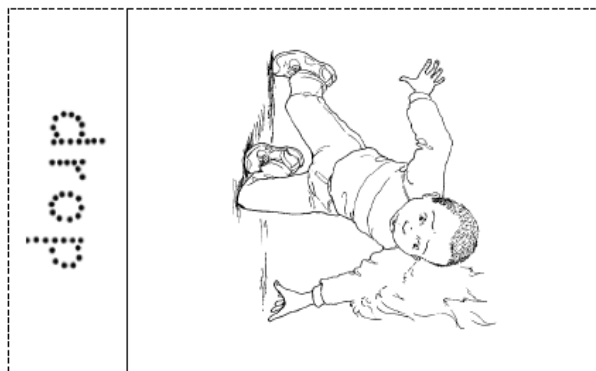
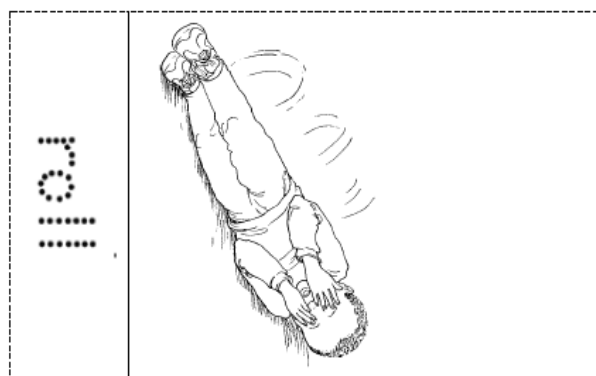
- How do you think your clothes might catch on fire!
[e.g. reaching over a candle, sitting too close to a fire, playing with matches and lighters]
- What can you do to prevent your clothing catching on fire!
[Stay away from hot things. Stay away from flames and fire.]
Remind learners about the 1 METRE safety zone.

3. Stop, Drop and Roll Song

Sing this song to tune of *Three Blind Mice*.

Stop, drop and roll!
Roll, roll and roll!
Do not run! Do not hide!
If your clothes should catch on fire.
Do not run and do not hide.
Stop, drop and roll!
Roll, roll and roll!

Cut out the pictures and put them in the correct order.
Then trace over the letters to write out the words: stop, drop and roll.



If your clothes catch on fire...

Recommendations

1. Formalise and implement the Fire and Life Safety Educators training as per NFPA 1035 professional standard
2. Further develop and support the implementation of the Learn Not to Burn® Preschool Programme South Africa in the Western Cape

Download: www.burnfoundation.org.za

Conclusion

“In order for fire safety education programmes to be successful, the provision of strong individual and organizational commitment and leadership is required (These initiatives involve more than fire safety presentations and distribution of brochures). “

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Thank you