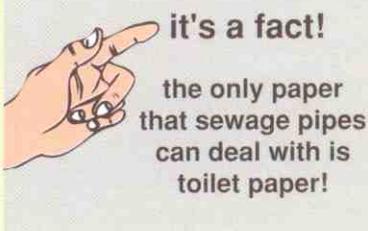


infosheet

BLOCKAGES, BAD SMELLS AND BACTERIA: BEWARE!

One flush of the toilet, or one pull of the plug, and all the 'used' water is supposed to flow down the sewage pipes to the treatment works and finally back into our rivers and ocean. However, problems often occur: At home, at school and at work, toilets and sewers get blocked and overflow into the roads and gardens. At the **sewage** works, pumps get blocked and stop working properly. Repairing these blockages is very costly!

In the Durban Metropolitan Area, many blockages occur because people use the sink or toilets as a rubbish bin for leftover food, old cooking oil, newspapers, sanitary pads, cigarette butts, cotton wool, earbuds and just about anything you can possibly imagine! Sewer blockages also occur when people remove the manhole covers in the roads. All sorts of rubbish is thrown into the manholes, including old tyres, bricks, used car-oil and even dead animals. These blockages often result in sewage overflows that cause very unpleasant smells and can lead to the outbreak of serious diseases. Nearly all these blockages can be prevented.



It is important to understand that the sewerage system, and especially the sewage treatment works, is designed to treat only 'used' water and not our rubbish! **Non-biodegradable** products, such as plastics, actually prevent the bacteria from doing a good job of 'cleaning up' the liquid sewage and

the **sludge**. **Organic matter**, such as leftover food, places an extra load on the sewage system. **Toxic chemicals**, which are found in many household products, actually kill the bacteria that are used in the treatment of sewage. None of these wastes must ever go down the sewage pipes!

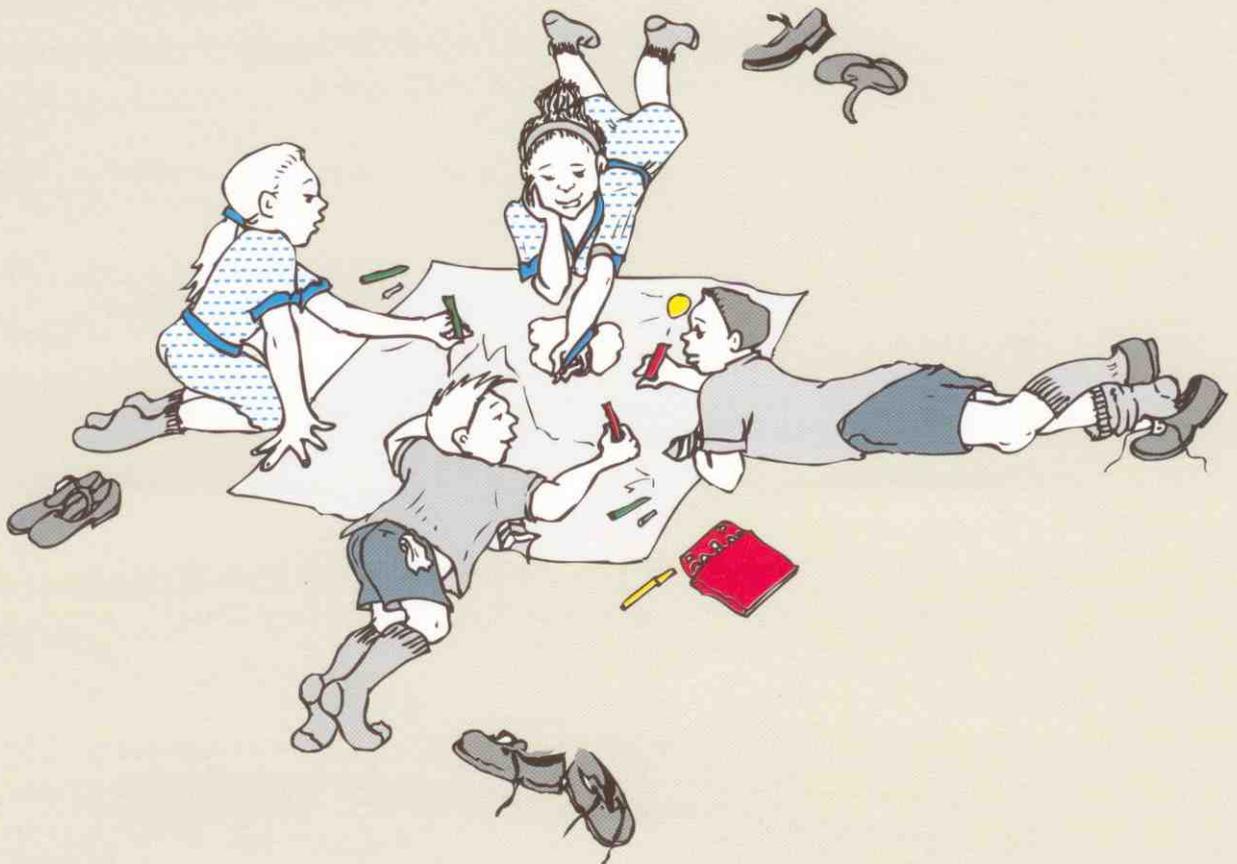




EYE-CATCHING COLLAGES



Provide the class with old magazines, scissors and glue. Working in small groups, ask learners to put together a collage that will create an awareness in the school that nothing other than toilet paper should be discarded down the toilets or sewage pipes. These posters can be pinned up in prominent places - including the school kitchen and toilets.





PHOTOCOPY



THE DRAIN DOCTOR

Hand out copies of the 'Drain Doctor' cartoon to each learner and have them discuss the following in small groups.

1. What is the toll-free number for reporting sewer blockages?
What does toll-free mean?
2. Why is the 'Drain Doctor' worried about the sewage running into the stormwater drain?
3. Why is the 'Drain Doctor' worried about the small children playing near the sewage?
4. What is the total cost of replacing 20 manhole covers a month?
5. What does Jabu mean when he says, "the thieves are forcing the community to pay for the same thing over and over and over again"?
Discuss your views on this matter with your group.
6. Replacing manhole covers is one cost. What other not so obvious costs are involved with unblocking sewers?
7. Why do children in the community throw things into manholes?
How can this be stopped?
8. Why do adults throw things into manholes?
How can this be stopped?
9. What creative actions could you, your class or your school take to prevent unnecessary blockages occurring in your community?



A DAY with the DRAIN DOCTOR

Early one morning, at the Springfield control centre

21B Toti Drive - Got it! We'll send a team out as soon as we can! Thankyou for reporting the blockage

Soon, the drain doctor and his new assistant, Jabu, are on their way to Toti Drive

How long will we be gone, Doc?

Depends, Jabu, we sort out some blockages in 5 minutes, others take days.

Hmm! This is BAD! Look how the sewage is running into the stormwater drain already!

Arg! I'm going to be sick

Mama, you need to keep your kids away from this stuff, it can make them very sick!

Please can you replace the manhole cover? I'm scared that my children will fall down the hole!

Yes, we will

That's probably where the problem started! People steal the manhole covers to sell as scrap metal!

Hey, no way! They mustn't do that!

Well, they do! We have to replace up to 20 a month! They cost us R200 each

Ouch! Who pays?

You and me and everybody who payes taxes!

Hey! That's not fair! The thieves are forcing the community to pay for the same things over and over again!

What do you find down there?

Just about anything : rocks, sand, tins, bottles, newspaper, cloths, motor-car parts

People, mainly kids I think, throw things down the hole for fun. Adults use it as a rubbish bin!

But how does it all get down there?

If we are not successful, we have to call in a high-pressure hose team to BLAST the pipes clean with water!

If it still stays blocked, then the pipes have to be dug up and replaced!

And to think that most of the blockages could be avoided in the first place!

REPORT ALL SEWER BLOCKAGES TO 0800 323235



PHOTOCOPY

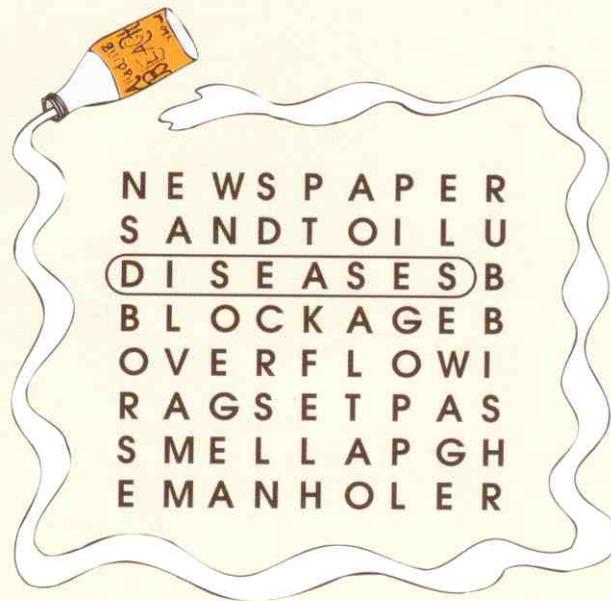
activity



THE WORD SEARCH PUZZLE: BEGINNERS

In the block below are 10 words. See if you can find all the words hidden in the word search puzzle. Some words are written across and some downwards. Once you have found a word, draw a line around it

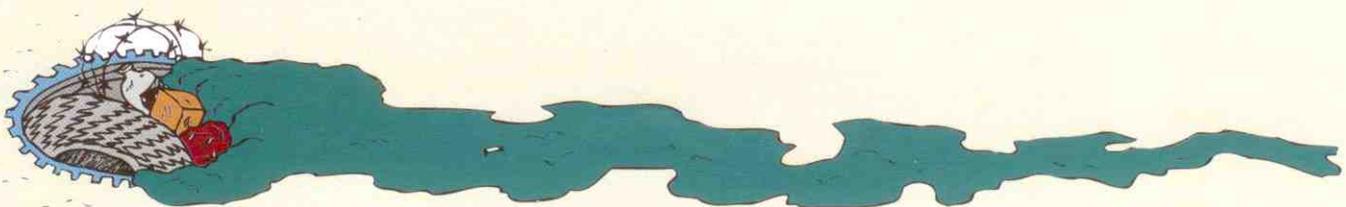
BLOCKAGE
 OVERFLOW
 SEWAGE
 SAND
 RAGS
 NEWSPAPER
 RUBBISH
 MANHOLE
 DISEASES ✓
 SMELL



1. Make 10 sentences, each time using one of the hidden words.

2. Find the secret word:

Starting from the top left and working down row for row, write down all the letters that are not included in any words. Make a sentence with the secret word.





PHOTOCOPY

THE WORD SEARCH PUZZLE : ADVANCED

1. Hidden in the block below are the following words. Once you have found a word, draw a line around it.



TOILETPAPER	LITTER
BLOCKAGES	BRICKS
SEWAGE	OIL
SEWER	WATER
PIPES	CHEMICALS
PLUGHOLES	TRASH
DRAINS ✓	GERMS
MANHOLES	PUMPS
NEWSPAPER	AVOID
OVERFLOW	BROKEN
ODOUR	REPAIR
POLLUTION	OPEN
RATEPAYERS	PHONE
GREASE	SMELLS
RUBBISH	SAND

B R I C K S O V E R F L O W N S
 O L T T S M E L L S H E I N N M
 A V O I D R U B B I S H G I O A
 P T I C H E M I C A L S A H E N
 O R L T K H A N E T O R R I L H
 L E E T P A A R P E D E R M O O
 L I T T E R G A S E W A G E D L
 U Y P U M P S E B E E D I S O E
 T R A S H C E A S A N D R D U S
 I P P E D O P E N R E P A I R D
 O H E O W N I I N T H W A T E R
 N O R A T E P A Y E R S E T O I
 L N E W S P A P E R B R O K E N
 G E R M S E T P L U G H O L E S

2. Make sure that you understand what each word means.
3. Choose five of the words and write a paragraph which includes all five.
4. Starting at the top, and working from left to right along each row, write down all the letters left in the puzzle. These 56 letters do not belong in any of the words you have identified. See if you can work out the secret message that can be found in these letters.
5. Discuss the secret message in small groups. Think of ways in which this message can be spread to other people in your school and family.