

# Water

Yours for life, **respect it**



Water Safety  
information sheets  
and teachers notes



# Water Safety

Yours for life, respect it

If you attempt to swim in or skate on reservoirs you put your own life and the lives of others at risk. Even very strong swimmers could encounter difficulties in reservoirs because they can be very deep, very cold and there are hidden and unexpected dangers. Look out for the warning signs.

Diagram A shows a sketch of a typical reservoir. \_\_\_\_\_

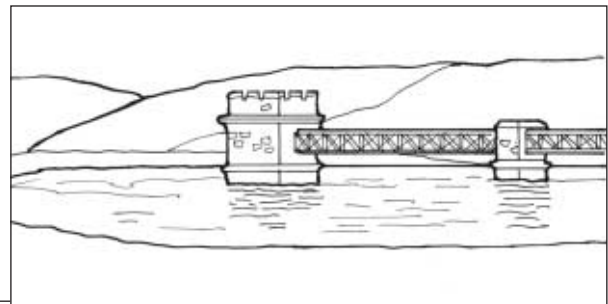
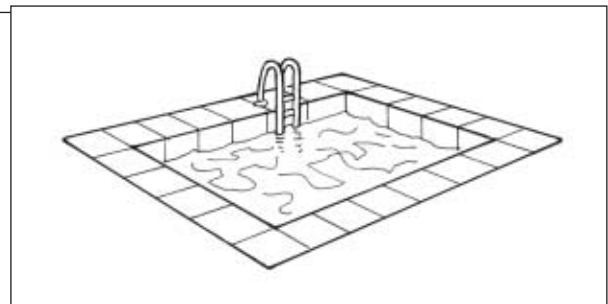
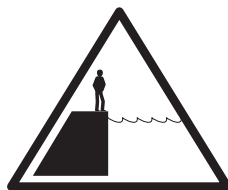


Diagram B shows a sketch of a typical swimming pool. \_\_\_\_\_



Study the diagrams and answer the following questions.

- 1 How are the sides of a reservoir different from the sides of a swimming pool?
- 2 Why does the base of a swimming pool slope?
- 3 Why are reservoirs so dangerous to swim in?
- 4 What do these signs mean?



- 5 What obstacles could be found in a reservoir, which would never be found in a swimming pool?

- 6 How could obstacles cause problems for a swimmer?
- 7 Why is it safer to go to a swimming pool rather than swim in a reservoir?
- 8 If you were foolish enough to ignore the warning notices and fall into a reservoir, how would you escape from the water?
- 9 If someone tried to help you, how could their life be at risk?
- 10 How can you help in an emergency?

See teachers notes.



# Water Safety

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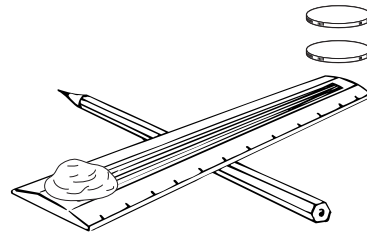
If you fell into a reservoir your overall weight would increase because of the weight of the water in your clothes. This would make it very difficult for you to drag yourself up the steep sides of the reservoir or for others to pull you out.

Now try this experiment.

## Lightweight or heavyweight?

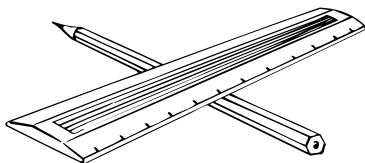
You will need:

A flat sided pencil, a ruler, a ball of cotton wool, some penny coins or small weights and a small dish of water.

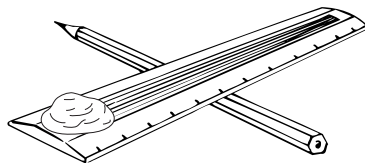


Instructions.

Place the ruler across the pencil to make a see saw.



Place a small ball of dry cotton wool on one end of the ruler.



Add coins one at a time onto the other end of the ruler.

- 1 How many coins were needed to raise the dry cotton wool?

Now place the cotton wool into the water. Remove the wet cotton wool and gently shake it to get rid of the excess water. Repeat the first three stages of the experiment with the wet cotton wool.

- 2 How many coins were needed to raise the wet cotton wool?
- 3 Would a person who fell into a reservoir be heavier or lighter in wet clothes?
- 4 Why would the wet clothes make it difficult for the person to climb out of the reservoir?

See teachers notes.



# Water Safety

Yours for life, respect it

## Hot or cold?

In hot weather everyone tries to find ways of staying cool. If you lived near a reservoir where people are allowed to visit, you might be tempted to have a dip.

If you tested the water in a reservoir with your hand, you may believe that it was warm enough for swimming. Your body is however, not always a reliable judge of temperature.

## Try the following experiment

Fill three bowls of water as follows:

Bowl A. Hand hot water



Bowl B. Equal amounts of hot and cold water



Bowl C. Very cold water with ice cubes



Now put your left hand in Bowl A and your right hand in Bowl C. Keep them there for sixty seconds. Take both hands out of the bowls.

Wait for a few seconds and then place your left hand in Bowl B.

- 1 What do you notice? Does the water in Bowl B feel warm or cold?

Now put your right hand in Bowl B

- 2 What do you notice? Does the water in Bowl B feel warm or cold?
- 3 Why do you think that putting your hand in a reservoir would be a poor way to find out how cold the water really was?
- 4 Describe how your right hand felt at the end of sixty seconds in Bowl C.
- 5 What would be the effect on your body if you were suddenly plunged into very cold water?

As you will see from the tests, you cannot tell what the temperature will be in a reservoir in the summer or what effect the temperature may have. So rather than swim in a reservoir, go where you know that it is safe. Go to a swimming pool.

See teachers notes.



# Water Safety

**Yours for life, respect it**

**Are the following statements true or false?**

**Tick the correct boxes**

	True	False
1 It is safe to swim in any water.	<input type="checkbox"/>	<input type="checkbox"/>
2 Ice on a pond, lake, canal or reservoir will be thick enough to hold up small children.	<input type="checkbox"/>	<input type="checkbox"/>
3 It is safe to swim fully clothed because your clothes will keep you warm.	<input type="checkbox"/>	<input type="checkbox"/>
4 A core temperature of more than 32°C is needed for a body to function correctly.	<input type="checkbox"/>	<input type="checkbox"/>
5 In hot weather the water has to be very cold for you to cool down.	<input type="checkbox"/>	<input type="checkbox"/>
6 The ice at the edge of the water is thicker than the ice in the middle.	<input type="checkbox"/>	<input type="checkbox"/>
7 A person cannot drown in water less than one metre deep.	<input type="checkbox"/>	<input type="checkbox"/>
8 Warning notices at the edge of a reservoir are only there for very young children and do not need to be obeyed if a person can swim.	<input type="checkbox"/>	<input type="checkbox"/>
9 If you are wearing arm bands you will not drown.	<input type="checkbox"/>	<input type="checkbox"/>
10 It is never safe to paddle at the edge of a reservoir.	<input type="checkbox"/>	<input type="checkbox"/>

See teachers notes.



# Teachers notes 1

## Yours for life, respect it

Drowning is the third most common cause of accidental death among the under 16's. Young people who drown are often victims of their own misjudgement of their swimming ability. Young people may see a reservoir as a tempting way of cooling off on a hot summers day, but do not realise the danger cold water can have upon their strength and stamina.

Young people who learn to swim may be able to help themselves if they are in difficulties in water, however being able to swim does not make young people safe. Figures from RoSPA show that more than half of those who drowned could actually swim.

During the school holidays and in particular in hot weather, increasing numbers of children put themselves at risk of drowning. In 2000, 54 children drowned in the UK.

(RoSPA (The Royal Society for the Prevention of Accidents), August 2004)

### Water safety page 1

- 1 Reservoir sides are steep, rocky and sharp, possibly wet and slippery, with no ladders or easy-to-grip sides.
- 2 The base of a swimming pool slopes to provide a shallow end for standing and for weak or non-swimmers to relax and a deep end where it may be safe to dive and for competent swimmers.

- 3 Very deep water, cold water, hidden obstacles, no lifeguards, difficult to be rescued, murky.
- 4 No swimming.  
Beware - deep water.
- 5 Debris, pipes, equipment, branches, rocks and rubble.
- 6 It is impossible to know from the side what is underneath the water. You could hurt yourself jumping or diving in or by hitting something hard under the water. You could get tangled up, or very cold and drown.
- 7 There are lifeguards, the water is heated, any heating or filtering equipment is hidden away, there are lifebelts and steps to get in and out.
- 8 With difficulty! Refer to answer 1 above.
- 9 The cold, steep sides or any hidden obstacles can affect two people the same as one. There is no safe way to swim in a reservoir and there is no safe way to be rescued.
- 10 Call the Emergency Services for help by dialling 999.



# Teachers notes 2

## Yours for life, respect it

### Water safety page 2

#### Lightweight or heavyweight

- 1 A one pence coin is sufficient to raise the dry cotton wool ball.
- 2 The wet cotton wool ball may need at least four coins.
- 3 Wet clothes would make a person in a reservoir significantly heavier.
- 4 Wet clothes would restrict the use of arms and leg as well as adding to the weight of the person.
- 4 After sixty seconds in very cold water the hand should feel numb, very cold and even difficult to use.
- 5 Great strain will be put on the heart. Shock may set in and certainly arms and legs may become numb making it difficult to stay afloat. You may even get hypothermia if you entered water cold enough for your 'core' body temperature to fall below 35°C.

### Water safety page 3

#### Hot or cold

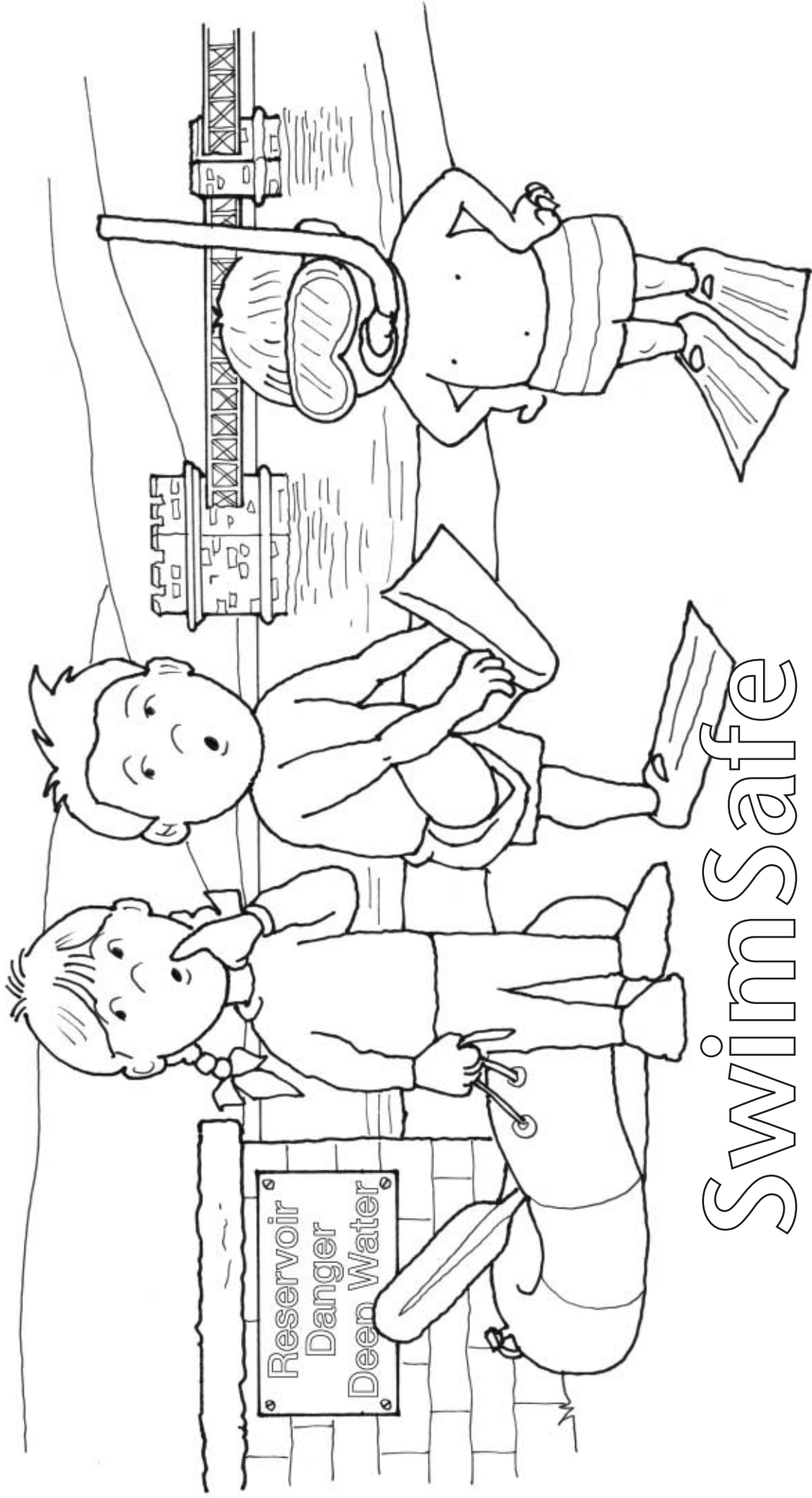
Care should be taken to ensure that the hot and cold water are at a comfortable temperature.

- 1 The temperature of Bowl B will feel colder if the hand has been in very hot water.
- 2 The temperature of Bowl B will feel warmer if the hand has been in very cold water.
- 3 Dipping a hand into a reservoir can never be an accurate measurement of the water temperature as the reservoirs may be very deep and the surface temperature can vary from the temperature below.

### Water Safety Page 4

#### True or false

- 1 F
- 2 F
- 3 F
- 4 T
- 5 F
- 6 F
- 7 F
- 8 F
- 9 F
- 10 T



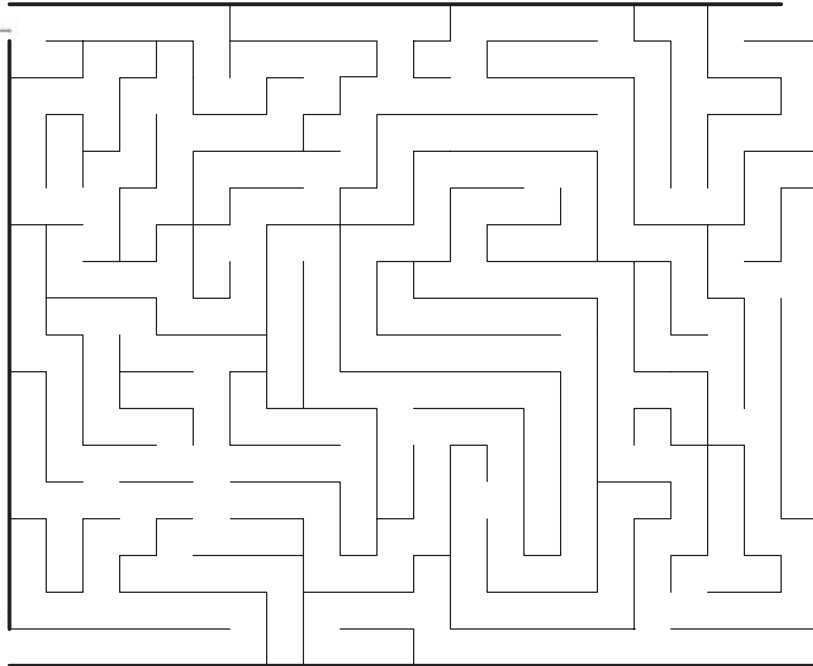
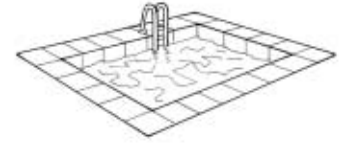
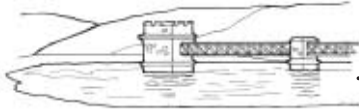
# Swim Safe

Don't be a fool! Swim at the pool!



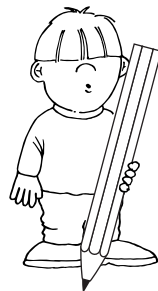
# Activity Sheet

Help Kirsty find her way safely to the swimming pool



Help Elvis find the hidden words

- 1 COLD
- 2 DROWN
- 3 LIFEGUARD
- 4 SAFE
- 5 SWIMMING
- 6 POOL
- 7 RESCUE
- 8 WARNING
- 9 SIGNS
- 10 DEEP
- 11 RESERVOIR



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