



HYPOTHERMIA EXPERIMENT

Children love this one. It's a "doing" exercise, and they have the chance to test and experiment with cold water. You will need a capsized bottle and a way of filling it with water. (take a jug, it won't fit under a basin tap). You also need to bring along a packet of ice. Not too much, just enough to make the water pretty chilly. (if you have a thermometer, you're looking for about 10 degrees. If you don't, just guess)

Start off by saying that you are looking for two strong and sturdy volunteers to help you with an experiment. Choose two likely candidates. (the louder, more expressive children work well here, they are natural exhibitionists, and will do as you say)

Explain that you have heard that cold water can kill you and you want to test this. Are they up for it? Usually that will set the tone for a daring and exciting lesson. Tell them that before you begin they have to memorise and understand the 50/50/50/50 rule. Make them say it. 50.50.50.50. Now explain it: You have a 50/50 chance of surviving a 50 yard swim in 50 degree Farenheit water. Tell them the rule comes from America, and so we have to "translate" the measurements so we can understand them. Ask if they know what a 50/50 chance is. Get a few of them to explain it, 50 yards is about 45 meters. Make them think of a rugby field, or half the 100m dash – not very far, is it? Now, how cold is 50 degrees Farenheit? Its about 10 degrees centigrade, which is probably the temperature in Table Bay out where fishing boats would be.

Now repeat that they would only have a half half chance of surviving that short swim if the water were that cold. Ask them if any of them have ever jumped into water that was colder than they thought it would be. Talk about how it can take your breath away. Tell them its called the "gasp" reflex, because it makes you gasp, and you cant help it. If you gasp while you're under the water, well, that would be a problem, wouldn't it?

Now get your experiment ready. Make a fuss of selecting a timekeeper, and handing over a stopwatch, and showing them how to work it. Get your candidates to kneel on each side of the capsized bottle. Ask them how long they think it would take them to swim 50 meters. Ask them how long they think they would be in the water if their fishing boat capsized. Tell them you want them to go for 90 seconds. Can they do it? Remind the rest of the class that they will only have half an arm in the water, not their whole body, but that it's a difficult test anyway.

As you prepare to start them, put yourself in position to see their faces. Tell the timekeeper to count them down and when you say "Go!", they must put their arm straight into the water and keep it there. Watch their faces. If they duck their heads, announce loudly to the class, "Oops, gasp reflex, I don't think he will make it!"

Get the class to help you count down the last 15 seconds. As you reach 90 seconds, start clapping and say, "well done." Lift up the arms and grab their wrists for a few seconds. Talk about how numb their arms feel. Ask how they think they would feel if their whole body had been in the water. Let them walk around the class getting everyone to feel how cold their arms are.

End off by reminding them of the 50.50.50.50 rule and telling them that hypothermia is when the body's temperature drops too low, and that this will happen much faster in water than on land, and that it can kill you, before you drown.