

Key skills for safe self-rescue in your swimming programme.

In presentations and discussions, I ask the question : Which SELF RESCUE SKILLS can be reliably assessed in a warm indoor pool environment?

Also see <https://goinghorizontal.org/outline-of-a-model-for-meeting-the-outcomes-for-school-swimming/>

CONTEXTS: 'Comfort Zones'; Cold water 12°-15°C (Common outdoors in UK) is considered to be immediately life threatening*; 'Real Life' functional life skills ...

Big considerations:

- Age, context and real life connections and associations
- Cold Water Shock*
- Tides, currents, rip tides Depths
- Wearing Clothes



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Baseline or foundation skills we *can* assess. (Contexts are harder)

I Can... 'fall' in, submerge and resurface 'calmly'

I Can... then float on my back for one minute

I Can... also gain control of and 'regulate' my breathing; (*'breathe aquatically'*)

I Can...then 'make a plan' to keep me safe

I Can... tread water to keep my head above water / I can turn around....signal/shout for help

I Can... travel** using my arms and legs - and I can change direction

I Can... climb out with and without assistance

How important is it to know that all of these can be performed WITHOUT GOGGLES ?

THERE ARE ALSO A NUMBER OF IMPORTANT WATER SAFETY MESSAGES WHICH CHILDREN CAN LEARN. SWIM ENGLAND HAS PRODUCED USEFUL WATER SAFETY CODE POSTERS²

*(**Some swimmers will be able to travel further maybe using two rudimentary or 'adapted' strokes *** – one on the front and one on the back; a stroke where they will be able to breathe in a relaxed way which is coordinated to the demands of the stroke. Others will have more developed more formal stroke skills. 'Able' swimmers need to understand their limitations in an open water environment: temperature, tides, currents, wind, waves etc WILL seriously affect them...!! (**See Survival Strokes) All those who decide to swim to safety also need to know the importance of RESTING if they get tired.*



PROBLEM? How do we balance introducing and presenting Self Rescue and/or Personal Survival as FUN activities – which is often the case – against understanding of the seriousness of the REAL LIFE situations in which they are likely to be needed – when DROWNING³ may be likely ?

How do we balance KNOWING that statistically, more than likely there will be factors and behaviours involved which we cannot replicate in the warm indoor protective environment of a swimming pool? Cover them in the classroom? For most schools water time is precious.


¹ See Card: Aquatic Breathing; controlled, rhythmic, timed, 'trickle' and or 'explosive'. We float better holding a BIG BREATH.


² www.swimming.org/learntoswim/downloadable-water-safety-posters/

³ Drowning involves water getting into our lungs...

ALSO Remember – IF it happens it will usually be unintentional and accidental...

- **Panic and fear are major factors; our ‘instincts’ are to fight the water, especially cold water – to start ‘swimming’ if we can; if not then to keep the head up to breathe. Head up often means going vertical !!!**
- **To ‘simply’ lay back and float on your back with as little movement as possible is counterintuitive !!! *But in open water, overcoming this in the first 60 – 90 seconds after submersion can be critical to survival....***
- **Confident and able swimmers in the swimming pool, may *overestimate* their ability and *underestimate* the potentially life threatening effects of open water environments and prevailing weather conditions**
- **Peer pressure and risk-taking behaviours can lead to serious mis steps in and around open water and on holiday at the coast or in the pool.**
- **Large numbers of incidents involving children and young people occur where there is little or no adult ‘supervision’**

<p>Self-Rescue ‘Skills’</p>	<p>Pool Practices and Teaching points and applications</p>	<p>Self-Rescue Notes Also see earlier: </p>
<p>Jump/Fall in</p> <p>Take and hold a breath before fully submerging...</p> <p>Stay calm and ‘find’ the surface</p> <p><i>(Also see Orientation, below)</i></p>	<p>▶▶ Earliest practices/preparation involves Whole Body Submersion- eg. ‘seat drops’ to sit on the bottom of the pool and later, feet first surface dives to the bottom in deep water while close to the side/wall.</p> <p>▶▶ Retrieving objects from bottom of the pool in shallow and later in deep water. See surface dives</p> <p>▶▶ Feet first entries and submersion; first – where you can stand up and then in water you cannot.</p> <p>▶▶ (i) Eventually and when ‘ready: ‘Falling’ / jumping forwards, backwards, with a ‘push’* when not expected; from large unstable mats in the water -upright and log rolling? On poolside over the edge of the pool</p> <p><i>Outcome: Entering deep water with degrees of disorientation and unexpectedness...surfacing with head above water.</i></p> <p>▶▶Straddle Jumps are worth practicing too**</p>	<p>In the real world, ‘incidents’ tend almost always to be ‘accidents’. (<i>“They had no intention of being in the water”</i>)</p> <p>Consider how further understanding can be developed around all the issues associated with Cold Water Shock as well as things like currents, tides and rip tides</p> <p>One aspect of dealing with cold shock may be by reducing head immersion when ‘falling’ into water. This can be practiced as a straddle type feet first entry**</p> <p>*Following risk assessments and any guidance schools may offer, it is possible to incorporate more of the unexpected aspects*</p>

<p>Orientation and Rotation</p> <p>Change body position in the water – roll or turn from front to back and back to front</p> <p>Including Surface Dives (Feet first and Head first)</p>	<p>▶▶Changing Body Positions from horizontal to vertical and from prone to supine and every combination, employing tuck, twists and other rotations. We use them to develop aquatic skills generally.</p> <p>▶▶Try somersaults in chest depth water. Try simple jumps into deep water for orientation and surfacing. Practice somersault and log rolls on a mat hanging over the side..</p> <p>Try somersault rolls from a floating mat in deep water.</p> <p>Early practices involve: Log rolls; tuck rolls....But also see above – changing direction and the need to rest and conserve energy From more horizontal to almost vertical ; twists and turns</p> <p>▶▶Also see (i) above and Treading Water in a following section</p> <p>▶▶ Surface Dives are useful for SUBMERSION skills and even swimming underwater</p>	<p>Importance of remaining calm – letting buoyancy 'guide' where surface is; we tend to float back up.... See below too – Floating on the back for initial orientation and to regain control of breathing (See LTS: Aquatic Breathing)</p> <p>Consider what may cause 'DISorientation' and how to replicate it in the pool ??</p>
 <p>Buoyancy , Floating and regulating/ regaining control over breathing</p>	<p>▶▶ Starts with earliest practices for Aquatic Breathing – linked to Submersion.</p> <p>▶▶ Flotation and Rotation Practices – especially 'Star' Floats on the BACK</p> <p>▶▶ While in a back float position, try catching a rope/buoyant object thrown to you / holding onto a stick or pole held out to you and what to do next.(see 'Making a Plan)</p>	<p>Until you regain control of your breathing and know you are floating 'OK'</p> <p>Knowing that 'resting' and saving energy is important This is about being able to respond to help in ways appropriate to situation, swimmer ability etc.</p>
<p>Remaining afloat , staying calm; make an assessment of the 'situation' Decision Making 'Make A Plan'</p> <p>This may include signalling or shouting for help***</p>	<p>Context is going to be very important. See Protective Warm Indoor Pool vs Unknown, unpredictable, and COLD Open Outdoors...</p> <p>Certainly talk about restoring calm and fighting instincts and panic.; being able to think, assess and even try to predict clearly and realistically 'what next ? <i>Making a plan</i></p> <p>For some- the best plan is to wait for help in the most energy saving and calming way. For others it may be to realise they can help themselves and travel slowly to safety (talk about safe place options)</p> <p>For many it is a combination of both. Eg able swimmers in a rip are advised to let the rip take them and once free to begin to travel back to shore. Even then knowing when and how to rest if they are getting tired or worried while swimming can prove critical.</p>	

	<p>I think it works better if we start with the idea of BEING RESCUED rather than whether you can be the rescuer. Many programmes practice rescue scenarios where children perform a range of rescues⁴.</p> <p>***NOTE there are some experts who believe that waving arms if wearing clothes may release trapped air and so reduce buoyancy. There is some evidence that trapped air in some clothes can increase floatation time in some situations..</p>	
<p>Sculling : stationary, then head and maybe feet first</p>	<p>Typically practiced on the BACK ...either using specific sculling movements⁵ small paddling actions with arms and hands : strong hand and arm movements underwater keeping hands 'low' and close to sides/hips...</p> <p>▶▶progress to actual sculling 'figures of eight'.....</p> <p>▶▶ rotation** from sculling on the back to swimming a short distance on the front</p>	<p>Also see treading water for the use of the hands 'sculling' strongly under the water.</p>
<p>Treading water (also see end note)</p>	<p>▶▶Early practices at the side in progressively deeper water.</p> <p>▶▶Experiment with various leg kicks</p> <p>▶▶ begin to slow everything down to almost relaxed and controlled movements of arms and legs.</p> <p>▶▶Extend time swimmer is able to keep head and face clear of water; to see and to breathe calmly and steadily</p> <p>▶▶ introduce 90°/180 °and 360° turns; move left and right and reverse...</p> <p>▶▶Introduce being able to shout for help</p> <p>▶▶Can you raise an arm/hand***</p>	<p>In open water advice is to keep yourself facing away from the waves and head above water.</p> <p>Again- consider keeping head and face clear to reduce amount of heat lost in a cold environments and if swimming to be able check location or progress or potential sources of safety or help...</p>
<p>Travel and change direction on both front and back (See end note)</p>	<p>▶▶Also see Floatation – knowing how and when to take a rest.</p> <p>▶▶Set up circuits or mark out 'courses'</p> <p>▶▶Competitive swimming strokes may not be appropriate in self rescue contexts.</p> <p>▶▶ Choice or adaptation of stroke is relevant here : try wide Breaststroke with face and head out: sidestroke, backstroke with breast kick and sculling arms etc see endnote: 'Survival Strokes'</p>	<p>'Survival' strokes are often adaptations of formal strokes. Another example is Front Paddle with head up and arms recovering underwater.</p> <p>Also 'Lifesaving' breast stroke leg kick on back</p> <p>Also Sidestroke</p>
<p>Do consider</p> <ul style="list-style-type: none"> • practicing everything WITHOUT GOGGLES • risk assessing**** and then practicing wearing clothes • Whether your timetable has any space to discuss Water Safety in the classroom? 		
<p>Safe exit</p>	<p>... including use of steps and the side of the pool; being helped...</p>	

⁴ The advice ALWAYS however is that children should **NEVER ENTER THE WATER TO ATTEMPT RESCUE**

⁵ Often thought of a flat figure of 8 ('lazy eights'), the palm sweeps out thumb down, holding pressure before rolling and sweeping back in again thumb up still 'holding' the water- then sweeping out again and so on....

****risk assessment is important and as with EVERY swimming activity - you must identify level of risk to each pupil AND what has been put in place to minimise or avoid the risk.

End Note: Heat loss is related to movement in water.

In cold water, heat loss when treading water is 34% greater than when lying still. This increases to 50% when swimming and to 82% when drown-proofing. (*Mats Melbye, Torill Hindmarch Norwegian Life Saving Society, Norwegian Swimming Federation*)

Programmes which include Survival Swimming often include the HELP and the Huddle actions. These are only practicable with floatation aids or when wearing Personal Floatation Devices (PFD)

End Note: Survival Strokes.

Survival strokes are about slow, gentle movements, saving or conserving energy in the water, keeping breathing as simple as possible and also about keeping on course if you know a direction to travel ...

Arms are mostly kept under the water; a hybrid/exception is eg head up front crawl for a long steady swim in known stable and steady conditions...

This is a really useful website: <https://www.dpanz.org.nz/topic/survival-strokes-sample/>

Useful References

Improving Chances of survival through acquiring self rescue skills. Child death review programme(Public Health Wales.2016

*Teaching Swimming : Issues beyond Drowning.*AARE Conference - December 2001 Peter Whipp – WHI01680

The Teaching of Swimming Based on a Model Derived from the Causes of Drowning. Stallman, Junge and Blixt. International Journal of Aquatic Research and Education. Volume 2 | Number 4 Article .2008



Colin Christmas 2023

07557881963

goinghorizontal@yahoo.com

goinghorizontal.org/



CHECKOUT the following cards in the Small Steps to Successful Swimming Resource and the link to other resources

PLAY
BE SAFE, EXPLORE, DISCOVER & ENJOY

Developing Self Rescue Essentials

LOOKING FOR
A coordinated sequence: decisive **BIG BREATH** before a controlled jump or improvised fall; feet first - a safe distance away from the wall - into deep water. Initially with, then without goggles. Re-surface calmly, eyes open, blowing out explosively through mouth and nose before taking another big breath. Treading water with wide, effective arm and leg actions for 10 seconds; head remains above surface. Change of body position to a relaxed and controlled back float, held for 10 seconds. Steady, regular and deep breaths. Staying calm, in control; learning to plan, make decisions. Unhurried travel to a safe place using arms and legs. Exit from water with or without assistance.

Exploring: Unintentional, sudden submersion. Initial breath, breath holding. Controlled, timed, aquatic breathing - trickle and explosive. Orientation, treading water. Flotation, rotation, body positions. Staying calm, relaxed, aware. Problem solving, decision making. Travel - changing direction. Applications for water safety, self-rescue.

CHECK DEPTHS

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Feet First Entries and Treading Water

LOOKING FOR
Head/shoulders above the water. Continuous, steady and smooth underwater arm movements; hands pressing downwards initially, then **sculling** wide figures of 8; hands changing palm, using palms to maintain pressure on water with strong outward outward (like finger hook), inward (thumbs behind, same level). Slow, wide, vertical leg kicks; cycle, scissor, breaststroke, 'fluter', 'egg-beater' or other preferred variations. Regular and even deep breaths. Relaxed composure, awareness and alertness - able to make decisions. Slow vertical 360° turns. Jump feet first, (**see straddle**) or 'stage' and controlled, safe feet first falling entry into the water.

Exploring: Body position, vertical flotation and rotation, influence of various leg and arm actions, types of breathing and timing, wearing clothes, not wearing goggles. Discuss how open water conditions are different, how to save energy, how to avoid heat loss. Try H.E.L.P. and Huddle. Links to Self Rescue, sudden immersion, personal safety, Lifesaving, Water Polo and Artistic/Synchro.

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Self-Rescue Multi-Skills Scenario

LOOKING FOR
Contrived, 'dramatic' jump or fall, feet first into 'deep' water. Complete tasks with, then without goggles, with and without T-shirt, shorts, socks. Deliberate big breath taken before entry, partial exhalation at initial submersion. Resurface calmly, eyes open; explosive exhalation, quick inhalation. Slow, wide effective arm and leg actions while treading water; head/shoulders kept 'dry'. Upright travel 2m forwards, backwards and sideways, plus a controlled 360° turn. 'Independent' decision making. A relaxed, controlled 25m swim with 3 or 4 changes of direction, using strokes and resting appropriate to given situations; controlled feet or head first submersions with brief powerful underwater swims. Calm, controlled, regular breathing throughout.

Exploring: Risk assessment and management. Orientation, adaptation, awareness of self and others in the water. Feet first entries. Treading water. Aquatic breathing. Calm and confident decision making. Application of a range of aquatic and swimming skills for safety awareness and self-rescue: resting, changing direction, swimming underwater.

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Surface Dives

LOOKING FOR
Agile, coordinated sequences of movement. **Feet first:** Treading water, hands and legs quickly press/kick down; shoulders rise, both arms quickly extended high above head ('clap'), both legs extended, close together, straight down, vertical and streamlined; body stays flat. Strong push or kick up to surface.

Head first: From a horizontal front float position; arms sweep/pull powerfully back, under body or around to hips, to initiate a forward tuck/pike rotation. Lifting hips ('**Chin-to-knees, knees together**'), 'bottom up head down', 'heels to seat'. A strong palm up scull/pull to assist lift of both legs out of the water - extended, close together, vertically upwards, driving streamlined, vertical body, straight down, arms also extended together; fingers pointed to the bottom of the pool - protecting head. No added kick or arm pull. With/without goggles. Moving underwater confidently and for longer durations.

Exploring: Using gravity, momentum. Body Positions, alignment, rotations. Fastest/best way to sink; Breath control. Swimming underwater. Retrieving objects, avoiding surface obstacles. Self Rescue.

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White Water Challenge
(See back for details)

LOOKING FOR
Confidence to make decisions, assess and manage risk in 'challenging' conditions. Resourcefulness: adapting a range of learned aquatic skills and tactics, including treading water, controlled, timed aquatic breathing and breath holding; using or adapting swimming skills - at the surface or under the water. Resilience and resolve in turbulent, unpredictable and 'hostile' water. Team work: Shared understanding of everyone's roles and contributions to the challenge and its purpose; support for all who participate.

Exploring: Risk management. Orientation, adaptation, awareness of self and others in the water. Feet first entries. Treading water. Aquatic breathing. Calm and confident decision making. Application of a range of aquatic and swimming skills for safety awareness and self-rescue.

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BE SAFE HAVE FUN!

If you are in and around the water ALWAYS REMEMBER TO:

- 1 STOP AND THINK**
- 2 STAY TOGETHER**
- 3 FLOAT**
- 4 CALL 999 OR 112**

FIND MORE FUN AND SAFETY TIPS AT RNLI.org

Lifeboats



<https://rnli.org/youth-education/education-resources/activity-sheets-and-posters>