

2.2 Core aquatic skills / water literacy

Acquiring core aquatic skills or 'water literacy' involves a series of experiences/practices that help the non-swimmer / beginner / early stage learner to become familiar with the environment, safe and confident moving in and around the pool area and competent in the basic skills and methods of propulsion.

...as well as being confident in
the water environment
they need to acquire the core
aquatic skills
.... these are what will enable
them
to progress later and reach
their potential

The practices that follow can be performed with or without buoyancy aids for the non-swimmers and will form the major part of the non-swimmers programme. The more advanced skills (e.g. treading water) and practices will be part of the programme throughout the early stages of the Learn to Swim Framework as the learners move through the FUNdamentals and into the SwimSkills levels of LTAD (Pre-school and SwimSkills 1, 2, and 3 levels of Scottish Swimming's Learn to Swim Framework 2015). Relate to LTAD covered in Cp.2 / 2.8.1.

The aims of the non-swimmer programme:

- ensure the learner is confident in the water environment
- ensure the learner acquires the 'core aquatic skills' i.e. basic movement literacy in water
- ensure the learner has a 'good' experience i.e. that will make them want to come back and do more

"Water literacy"

The very early stages are about safe entries into the water, getting accustomed to going under the water, getting the feet off the bottom, regaining standing, and starting to move through the water in various ways etc. These skills are the **core aquatic skills** that learners need to be able to advance to the more recognised techniques of swimming such as the swimming strokes. Together these form the basic **water literacy** without which the learner will not be able to progress and enjoy the other experiences that the water environment and swimming have to offer. Aligned with this has to be the aim of having the pupils happy and enjoying the experience. To help achieve this, a lot of the teaching will be done through play and games activity.

Core aquatic skills

Within the content of the non-swimmers / early learners programme the core aquatic skills have been grouped together under the following headings:

- Safe entries and exits
- Orientation
- Submersion and aquatic breathing
- Floatation (incl. balance)
- Streamlining
- Rotation
- Propulsion
- Sculling
- Treading water

Practices for core aquatic skills / water literacy.

The following practices should provide a selection of stages for learners. It is important to realise that they are not necessarily done in the order listed and it is unlikely that each child will do all the practices. They need to be selected from according to pupil's needs.

Plan for success



To make practices 'progressive' it is important to try to build learning stages for pupils based on what they can do at present.

Plan and sequence the practices i.e. only a small gap between one practice and the next

The next stage should be only a small gap from the stage that the pupil has already mastered. Large gaps in the learning sequence, between the demands of one practice and the next, are likely to cause pupils to fail.

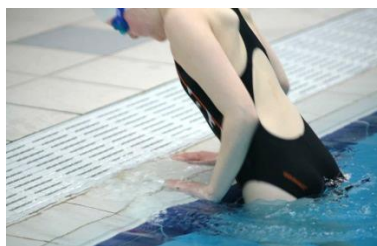
Large gaps = the chasm of failure

a) Safe entries and exits

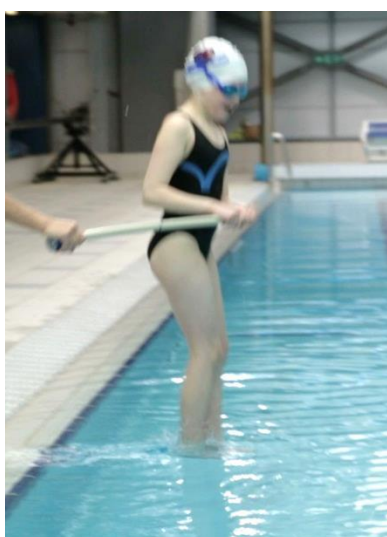
This involves the ability to get in and out of the pool with ease and adds to confidence in the swimming pool situation. It is one of the core aquatic skills that requires to be covered in the first lesson and then different aspects of it (e.g. jumping in) dealt with in later lessons as pupil ability develops. It is also important in the class situation to develop the ability of pupils to get in / out without using the steps to avoid slowing lessons down. If the whole class / group require to queue at the steps to go in or to climb out this becomes very time consuming.



PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Entry into pool using steps (vertical steps at wall).	Safe entry at early stages and for the more timid. Takes time with large class. Certainly used for first lesson.	Turn back to pool and go down one step at a time backwards. Hands should hold both hand rails and slide slowly down them.
2. Entry into pool from sitting on the side.	Simple entry suitable for all but the very timid. This is the most common entry for beginners classes after the first day.	From sitting on the side, twist and reach across body, put two hands firmly on the side, roll over onto front - slide in.



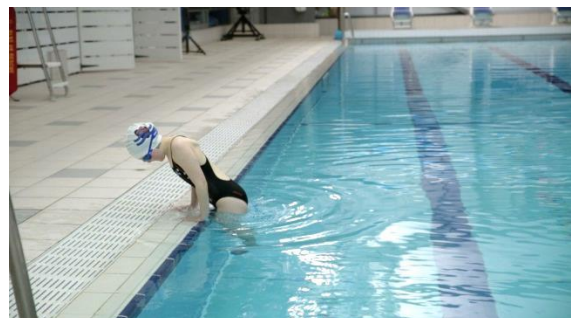
3. Jumping in.	Into at least chest depth of water. Can be done holding onto a pole to start with for the timid pupil. If teacher is in the water it can be done towards a teacher.	Toes over the edge to start. Step forward. Bend knees on contact with pool bottom. Organise the spacing for safety. Organise how they get out of the water or where they go next (to side / to steps).
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<p>4. Jumping and changing body shape in air (pencil, star, tuck, etc.).</p>	<p>To encourage more dynamic jumping for height. Encourages control of limbs and body shape.</p>	<p>Height in jump is essential to give time in the air to make shapes. Definition of shape – fully stretched / tucked etc. Head up if tucked shape. Straight shape on entry. Organise spacing and exit as above.</p>
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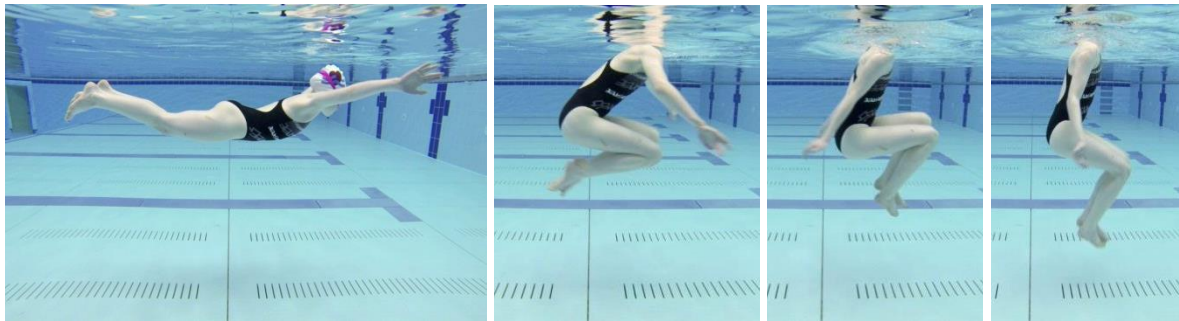
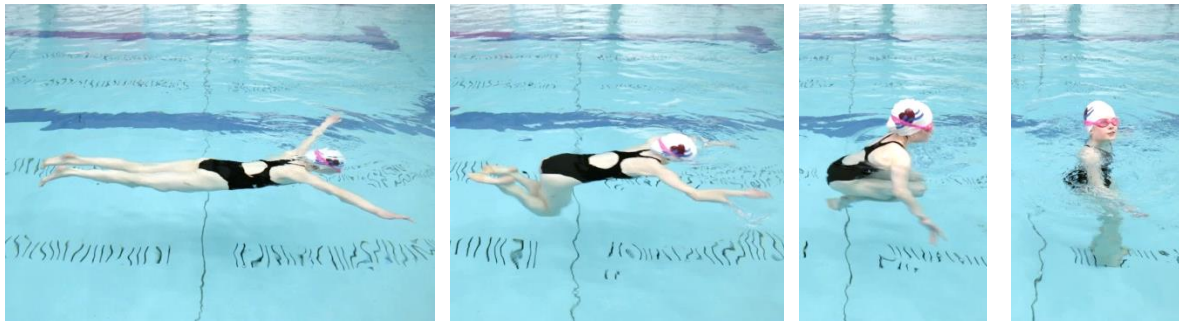
<p>5. Climb out using the steps.</p>	<p>Again this is time consuming for large numbers but easier for nervous pupils or pupils who are overweight or weak in the arms.</p>	<p>Facing the steps, gripping both hand rails. Place feet firmly on each step.</p>
<p>6. Climb out over the side.</p>	<p>Easier for large groups and avoids queuing. Can be practiced first in shallow water where the swimmer can push off from the bottom of the pool. At a later stage should also be done from deep water where the up thrust requires to come from a strong downward leg kick.</p>	<p>Place both hands flat on the pool side. Push off from the feet and also push up on both arms. Lean forward over the pool side to enable the push through the arms to raise the body over the poolside. Raise one leg/ knee onto the poolside to climb out.</p>



b) Basic orientation in the water environment

This involves general orientation and familiarisation with the pool environment and the water including the essential skill of regaining standing. It includes moving around, walking, changing directions, getting used to the slippery tiled floor of the pool, getting accustomed to the temperature and the water pressure etc. Practices can be done wearing buoyancy aids for confidence. It is better to be wearing arm bands and participating than holding the side terrified and doing nothing. Involvement leads to progress.

PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Holding pool rail walking <ul style="list-style-type: none"> • forwards • backwards 	Initial exploratory movement for first stage or very timid.	Use heel/ toe walking or sliding feet along bottom. Keep steps small at first.
2. In two's holding hands walking <ul style="list-style-type: none"> • forwards • backwards • sideways 	In two's gives confidence to move away a bit from side.	As above.
3. As above on own.	First attempt at moving freely in the shallow area on own. Timid pupils can stay near the side.	As above. Try to get shoulders down in / under the water. Use arms for balance.
4. In a 'train' - hold waist of the person in front.	Helps the insecure to have someone to hold.	Do not make 'train' too long. Small steps.
5. Crab walking along wall holding on to rail.	Good to get very timid moving although firmly anchored to the side.	Sliding hands along rail/ feet along wall sideways.
6. Walking round shallow area (alone or in twos) making pathway of initials/ figures, etc.	Develops familiarity with the environment in the very early lessons. Can involve change of direction and walking forwards / backwards / sideways. Helps awareness of area/ space.	Use heel / toe or sliding feet along bottom. Keep steps small at first. Can involve changes of speed.
7. Running, jumping, hopping etc. to move around the shallow end.	Develops familiarity with the environment. Involve changes of direction and speed. Can be in a game format of 'Simon Says'.	Help with technical information – keeping shoulders down, sliding feet, using arms out wide to help balance, breathe regularly etc.



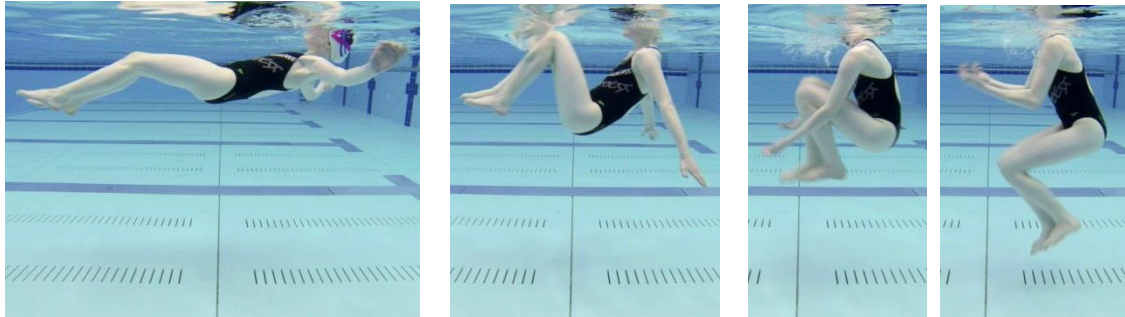
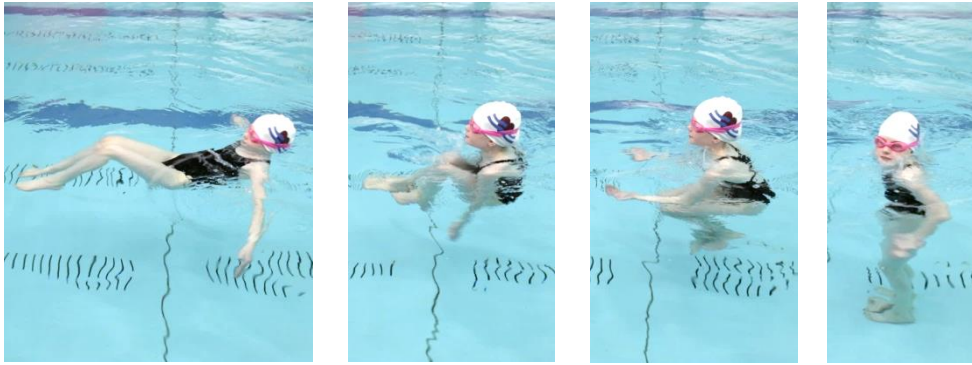
8. Regaining standing position from prone and supine position

- at side holding rail
- with 2 floats, one under each arm
- with a partner
- on own.

Many children do this automatically. Many have to be taught or they will be in danger/ panic, even in shallow water. When using a partner the partner can stand at the head end e.g. when lying on the back and can put hands under shoulders to give support / aid standing. Adults often require significantly more assistance with this due to increasing stiffness of joints with age.

Prone: Lift head/ press down with hands/ bend legs, knees towards hands/ place feet on bottom.
Supine: Bring head forward/ drop hips into sitting position/ bend legs/ scoop hands forwards underwater/ put feet down.





c) Control of breathing including submerging.

The skill should be introduced from the first lesson and reinforced in all lessons. Initially this will be done in shallow water and simply be the basics of submerging, blowing bubbles and breathing as the face goes in / out of the water. Later, once confident in the basics, some practice in deep water and also practice related to the specific stroke should be done. The practices are not necessarily in the order that they would be used for every situation. Neither would every child require all these practices.

PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Washing face with handfuls of water.	To get children used to water on face. Less frightening bringing water to face than face to water.	Large handfuls Wash whole face with all 'getting face wet' practices, discourage rubbing face/eyes afterwards. Squeeze eyes shut then open to get the water out.
2. Washing face with large sponges.	Large, bright coloured, animal sponges - similar to bath at home. Less frightening as it is familiar.	Get sponge really wet. Wash whole face.
3. Squeeze 'shower' of water from sponge over the head.	Get the idea of water landing on face but they can control it to some extent.	Get sponge really wet. Keep it over head. Look up at it.
4. Pouring water over the head / face from a plastic beaker or mini plastic watering can	Getting used to water over the face.	Gradually increasing the amount of water.



5. Splashing self.	As above.	Scoop up, throw the water.
6. Splashing, whole class splashing at once, as much water as possible.	Only suitable when all are confident getting wet / splashing on their own.	Throw up as much water as possible.
7. Blowing along water surface to cause ripples.	Encourages breathing and get face of very timid children down to the water.	Blow gently / blow hard.
8. Pushing object along surface with nose or head (cork, light ball, etc.).	Gets face down to water. Puts emphasis on something else.	Try to keep object close to head and nudge it along.
9. Getting the mouth into the water to blow bubbles.	Encourages breathing. Can be done with the mouth just in the water for the more timid.	Encourage the sound / sight / feel of a cascade of bubbles.



10. Blow object along surface (cork, ping-pong ball, egg flips etc.).	Encourages breathing - particularly exhaling which is important later for breathing in the stroke.	Can be done walking (try to get shoulders down in water) or swimming.
11. Getting the face in and blow bubbles a) from the mouth and b) from the mouth and nose	Encourage breathing. Can start as above with face only half in for the more timid.	Try to get bubbles under water. Hear, see and feel the bubbles.
12. Get the whole head under the water and blow bubbles (trickle)	Full submerging and exhaling.	Focus on the bubbles: see, feel and hear the bubbles. Long blow out under water.

13 Get the whole head under the water and blow bubbles (explosive)	Full submerging and exhaling.	Focus on the bubbles: see, feel and hear the bubbles just before the head comes up.
14. Repetitive bobbing	THIS IS A KEY PRACTICE FOR IDENTIFYING THAT PUPILS CAN DO AQUATIC BREATHING EFFECTIVELY.	Submerge and blow out, resurface and inhale. Emphasise the exhaling, focus on the evidence of bubbles. Should build up from submerging the face to doing 3 or 4 bobs to doing 15 – 20 bobs without any pauses. Must be long enough to ensure that they really do have to breathe. No pauses / no rubbing eyes etc.



15. Touch the bottom of the pool.	Putting the emphasis on touching the bottom rather than 'put your head under' helps the timid ones.	Try not to wipe face / rub eyes when surfacing. Shut then open eyes on surfacing to get water away.
16. Trace round one of the tiles on the bottom.	As above and encourages opening eyes.	Open eyes under water, squeeze eyes shut then open on surfacing.
17. Draw a shape on the bottom - animal / number/ circle/ own initials, etc.	As above.	Open eyes under water. Small shapes/ big shapes. Make shapes clear.
18. Sit on the bottom of the pool.	Experience of difficulty of staying down.	Sit cross legged. Sit with legs straight. Try to stay down.



19. Lie on the bottom of the pool.	As above.	On front/ on back Try to stretch out. What happens?
20. In two's - submerge facing a partner and count partner's fingers.	They have to open their eyes.	Stay close to partner. Open eyes.
21. In two's - (hold hands) 'see-saws' one person up and the other down.	Gives confidence from having someone to hold onto. Adds focus and interest.	One up/ one down under water. Encourage rhythm of up/down - breathe/ hold and exhale.
22. Pick up objects from the bottom –large objects progressing to smaller i.e. dive bricks / dive rings /pennies	Encourages opening eyes. Gives incentive of actually having to find / produce object.	Large objects are easier for less able. Open eyes to see.
23. Ring-a-Ring a Roses with hands joined in a circle.	Support and confidence from others around. Only for young children.	They sing loudly as they go round. 'All sit down' - submerge.
24. As above without holding on.	An alternative to (18) for the more confident.	As above.
25. a) To music / or drum beat, moving around when music stops 'submerge'. b) Musical statues 'stand still'.	Combine movement and submerging. Music adds another interest. Also good for getting attention /children to listen / getting control of a class, etc.	Can be walking or basic swimming.
26. Using a hoop floating on the surface ducking in/ out of hoop.	Give a target for going completely under but will not harm anyone who is timid and partly lifts hoop.	Go under water and then move forward/ sideways.
27. Holding the rail / wall submerge and blow out for a count of 5.	Begins to refine the breathing and relate to breathing in the stroke.	Mouth and nose in the water. Blow slowly and steadily for the full count.
28. As above but lying in the prone position kicking the legs as for front crawl,	Begins to relate the breathing to the kick / stroke. i.e. doing the 2 things at once.	Blow slowly and steadily for the full count. Maintain hard kicking while breathing

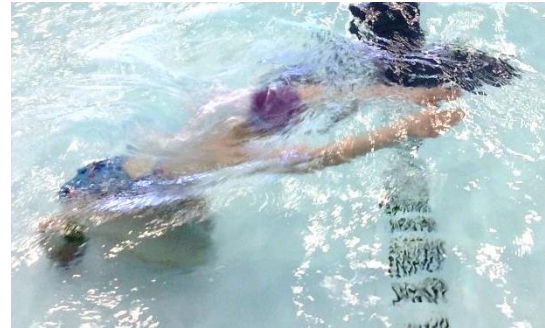
submerge face and blow out for a count of 5.		out. Lift head to inhale. Repeat.
29. As above but turning the head instead of lifting it.	Specifically relating to front crawl.	Turn head without lifting. One side of the face remains in the water. Rotate head back to the centre to exhale.

d) Streamlining

The streamlined body position is fundamental to travelling efficiently through the water and streamlining / adopting that long tapered body shape is the key to reducing resistance. Throughout all the practices the emphasis should be on getting the stretched / long thin / narrow body shape with the head positioned so as to maximise the flat body position i.e. raised / lowered to keep the body flat. The prone (front lying) and supine (back lying) positions should both be covered.



PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Floating in long streamlined shape.	To establish the body shape for the push and glide.	Face in the water, arms pressed against the ears, head in line with the body, chin in, stomach muscles and buttock muscles tensed, hands together/ one on top of the other, legs pressed together. Toes pointed.
2. Push and glide towards side.	To get feet off the bottom in the early stage.	Stand 2-3 paces back from side, shoulders submerged, push towards side. Head position with face in. Stretched body position.

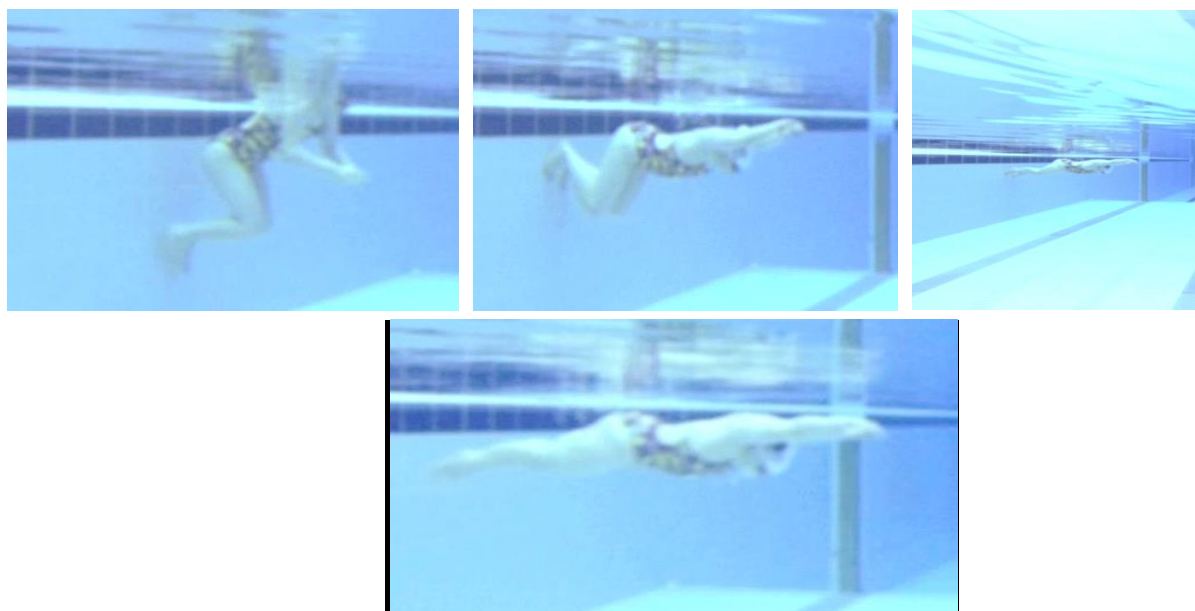


<p>3. Push and glide at surface in prone position.</p>	<p>Encourages good body position, push off from wall and face in the water.</p>	<p>Develop the sequence for pushing off from the wall – start holding on with one hand, breath in, face in water then push off.</p>
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<p>4. Push and glide in supine position.</p>	<p>Encourages flat position, back of the head in the water position.</p>	<p>Start with the glide with the arms at the side then develop the stretched glide - with one arm back - with both the arms back.</p>
<p>5. Push and glide slightly submerged.</p> <ul style="list-style-type: none"> • on the front • on the back 	<p>Develops the 'submerge' before the push off.</p>	<p>Hold on at wall with one hand, other hand stretched out in front. Breathe in; submerge at the wall before pushing off.</p>

6. Push and glide and kick. <ul style="list-style-type: none"> • on the front • on the back 	Body shape plus propulsion. Can incorporate crawl kick and also fly kick.	Push off, establish the stretched streamlined shaped then add kick.
7. Push, glide and kick for distance. <ul style="list-style-type: none"> • on the front • on the back 	To encourage the holding of the shape / position.	Build up – push off, assume stretched shape and glide, then add kick.
8. Push and glide to the bottom of the pool.	Encourage good body positions and directing body down into water. Useful introduction to elementary diving.	Head down and direct body down. Hold position.
9. Push / glide through the 'tunnel' – partner's legs forming arch /through hoop.	As above.	As above.
10. Push, glide and then add kick, then arm stroke <ul style="list-style-type: none"> • on front • on back 	Linking the streamlining to the full stroke.	Build the stroke up – push off, establish the stretched shape, add strong kick, bring in arms.
11. Push and glide to establish the ability to submerge and push and glide	Build up the 'inhale, sink, arms in front, head down, push off'.	Inhale then sink. Sink before pushing off.

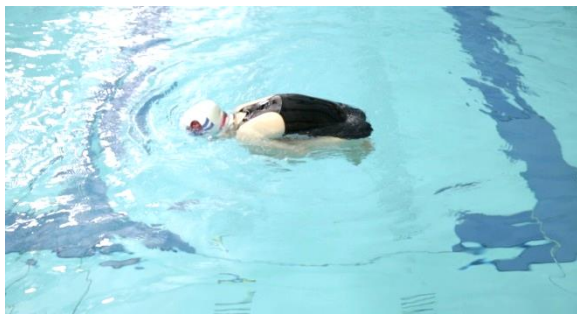


e) Floatation and balance (including balance, regaining standing and getting feet off the bottom)

This is about being able to control the body, be balanced, float and manoeuvre in a variety of situations and is essential if swimmers are going to be relaxed in the water environment and able to learn a range of other swimming skills and activities later. It also includes balance in positions other than floating e.g. handstands and 'regaining standing' (depending upon the

range of activities selected for the first couple of lessons i.e. regaining standing may be covered in orientation).

PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Floating - mushroom float with full inhalation.	Starts to make children aware of buoyancy and importance of air in lungs.	Full inhalation. Tuck shape. Assume position gently at the surface – do not jump into it. Hold position as long as possible. Arms gripping round legs.



2. Floating – mushroom float with inhalation then exhale.	As above.	As above then blow out hard and fast. What happens?
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3. Floating (prone) - different body shapes: <ul style="list-style-type: none"> ● long narrow ● wide star shape ● small and compact 	As above and control of body position.	Importance of air in lungs / face in the water. Definition of shape.
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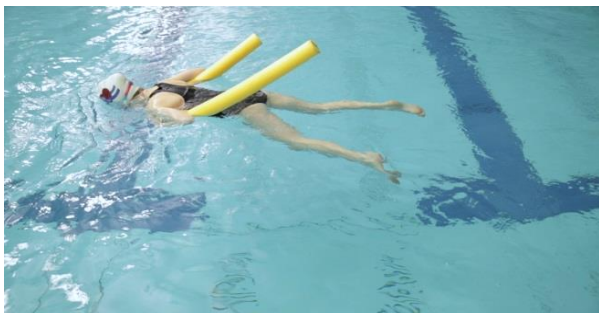
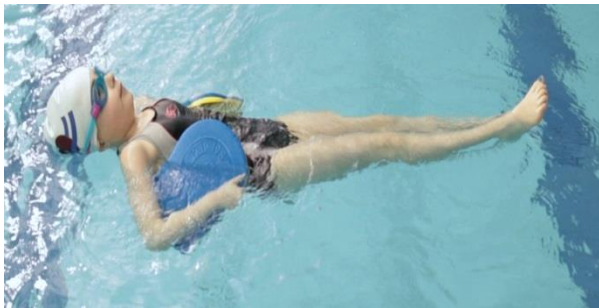
<p>4. Floating on back (supine).</p>	<p>To make aware of adjustments necessary to achieve 'float'. This is the body 'in balance' in the water.</p>	<p>Full inhalation. Head back. Start vertical and let legs rise, etc. For the good floater the legs will rise to the horizontal. When the legs stop rising the body is 'in balance'. For the poor floater, even with maximum inhalation, it may result in the vertical float (see below)</p>
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<p>5. Vertical float</p>	<p>This suits the poor floater. The minimum area of the body (part of the face) is out the water and the legs are at their natural level dependent on individual body composition. Good floaters, who would float horizontally, can try exhaling to let the buoyancy level drop and the legs sink.</p>	<p>Full inhalation. Head back only nose and minimum area of face out. Make sure the top of the head is back in the water. Arms stretched out to the side / towards head. Start vertical. If buoyant the legs will rise and breath will have to be exhaled (gently) to stay vertical.</p>
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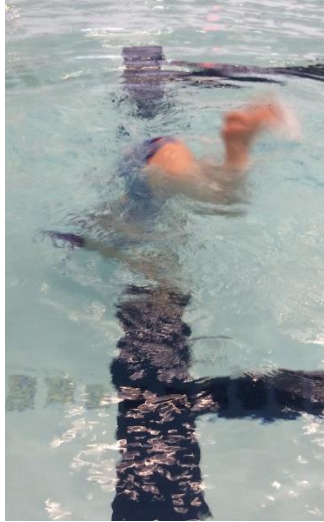


<p>6. Floating with 2 floats or a 'noodle'. Can be simply in order to work at the back float position or can be to work at the transitions as needed for practice 8 in this section.</p>	<p>Can allow pupils to experiment, with a bit of extra buoyancy, to work on the movement or body shape.</p>	<p>Either with a float under each arm or with the noodle across the chest and under each arm or across the back and under each arm, hands holding it at the front. Establishing the flat position, focussing on the adjustment of the head position.</p>
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<p>7. Moving from one floating position to another. Link 2 shapes e.g. prone float, pull through to back float / prone float, roll over sideways to back float / prone float, tuck to mushroom then open out and roll to back float – hold each position for a count of 5.</p>	<p>Allows the learning of moving and controlling / achieving balance in the next position. Develops awareness of body position / position of limbs.</p>	<p>Encourage the accuracy of the shape and the use of the movement of the head (up / down) to help correct / achieve balance in the new position.</p>
<p>8. Handstands in chest deep water (balance activity that also relates to inverting the body / future diving activity)</p>	<p>This is balance in a different situation where the body is supported on the hands and therefore reacts differently to the situations above. Encourages inversion which relates to diving later. Encourages balance in a situation which, due to the</p>	<p>Support provided by a partner to prevent the legs going over. Hands held out in front of head, shoulder width apart ready to take weight. Partner to let go whenever performer starts to go down from the handstand. Trying to get</p>

	support of the water, is easier than on land. Relates to diving activity.	centre of gravity / hips above the hands. Adequate space needed around the performer for safety.
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9. Handstands in shallower water e.g. around waist deep.	As in 9 but is more challenging as there is less water support. Suitable once the handstand can be done in deeper water without support. Relates to diving.	Support may be needed initially. Technical points as above in 4.
10. Spring into handstand. Can be done <ul style="list-style-type: none"> • alone in a space • into / out of a hoop • over a partner's outstretched arm 	As in 6 but incorporates an obstacle to clear and encourages 'spring' into inversion. Relates to diving activity.	Spring from 2 feet. Hands / arms out in front of the head ready to receive the weight.
11. With a float under each arm in a vertical position lifting the feet off the bottom. Can be done with buoyancy aids e.g. arm bands, for the timid / early stages.	Getting the feet off the bottom of the pool.	Down in the water so that the chin is at the surface. Lean on the floats and lift the feet off under the body. Extend the time the feet are off. Keep the floats down in the water.
12. With a noodle across the chest (or across the back) and under the arms, in a vertical position lifting the feet off the bottom. Can be done with buoyancy aids e.g. arm bands, as well	Getting the feet off the bottom of the pool.	Down in the water so that the chin is at the surface. Lean on the noodle and lift the feet off under the body. Extend the time the feet are off the bottom. Keep the floats down in the water.

for the timid / early stages.		
13. Holding the rail / channel facing the wall and getting the feet up behind. (may be an early stage needed to get the pupil horizontal)	Getting the feet off the bottom of the pool.	Varied grip - two hand over grasp on side/ rail, two hands over grasp on the side with the elbows also against the wall (can help raise the body to horizontal), two hands under grasp on the rail with the elbows against the wall or a staggered grip with one hand over grasp and the other hand against the wall under water to help raise the body.
14. Push and glide to the wall. Start a step away from the side, push towards the side. (may be an early stage needed to get the pupil horizontal)	Getting the feet off the bottom of the pool. Develop to incorporate putting the face in the water as pushing forwards.	Shoulders down in the water. Push through (not over) the water. Gradually increase the distance away from the side.

f) Rotation

Rotation plays a big role in changing direction and manoeuvrability in water and is therefore important to maximize. It takes place round one of the 3 axis of the body – **the longitudinal axis** (rolling sideways from front to back when lying horizontal or spinning to change the direction you are facing when treading water / submerging vertical) and **the horizontal axis** (somersault forwards or backwards) are the 2 most commonly used in swimming activities.



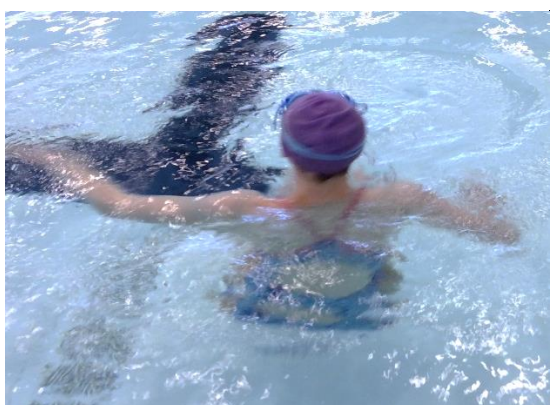


PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Somersaults <ul style="list-style-type: none"> • forward • backwards 	Good for orientation in water. Children will quickly become 'water-logged' and complain of water up the nose. Rotation around horizontal axis.	Body shape tucked. Head tucked in. Use of arms – circle arms Short duration of practice. Blocking off nose to avoid water going up / humming.



2. Handstands (see above under balance). i.e. half a rotation	Good for encouraging inversion for diving and confidence in going underwater. Rotation around horizontal axis.	Hands out in front of head. Spring off bottom of pool. Try to get hips up.
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<p>3. Log rolls – sideways rolling i.e. round the longitudinal axis of the body in an extended position.</p>	<p>Encourage control of body position and awareness of body movement.</p>	<p>Many will roll without technical help. Stretched body position. Pike <u>a little</u> at hips. Push hips to left to get roll to right. Turn head the direction you want to go.</p>
<p>4. Tubs / spinning tops. Tuck position with legs bent (shin to toes at surface)</p> <ul style="list-style-type: none"> • hands sculling in flat position to keep stationary • hands sculling, one standard and one reverse scull, to turn 	<p>Encourage control of body position and efficient use of hands. The tub turn is one of the few activities in swimming that involves rotation around the sagittal axis.</p>	<p>Body position. Flat scull for stationary position. Right hand standard scull / left hand reverse scull for clockwise rotation. Left hand standard / right hand reverse for anti-clockwise rotation.</p>



Tuck turn (rotation round longitudinal axis)

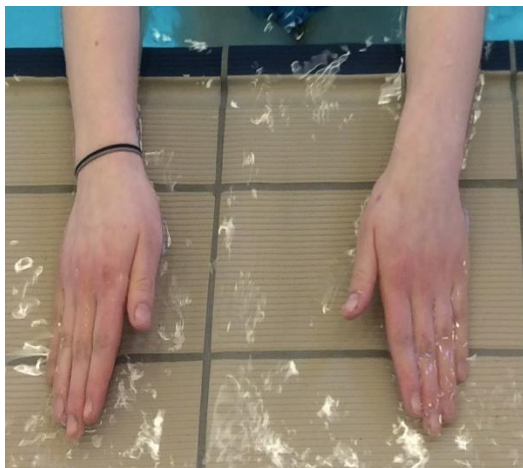


Tub turn (rotation round sagittal axis)

g) Sculling

Sculling is an important element in propulsion as the change of pitch of the hands is an important skill to learn for effective swimming strokes later. This is a major element in developing 'feel' for the water. Sculling is involved in many of the early Core Aquatic Skills e.g. regaining standing however may not be taught in its own right until a bit later in the non-swimmer / early learners programme. Three basic sculling positions should be taught; flat, standard and reverse.

PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Standing in the water facing the poolside trying sculling action with hands palms flat on the pool side.	Briefly as an introduction to establish the arm / hand action.	Sweep the hand outwards / inwards. Thumb down on the outswEEP / little finger down on the insweep. Hand / wrist kept flat. Forearm remains in place and hand goes like a windscreen wiper



2. As above but standing in water with the shoulders and arms under water.	To establish the movement of the hands pressing on the water.	As above.
3. Lying on the back with the feet hooked under the rail.	To establish the back lying position and the position of the arms.	Hand action taking place just wide of the hips and under water. Palms facing down.

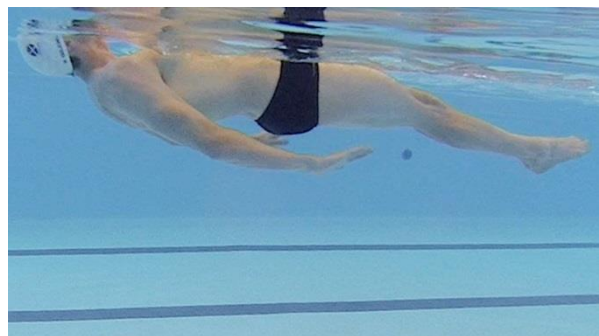


4. Supine float with sculling – stationary. Flat scull.	Good exercise for learning both control of the body, the sculling action and the importance of sculling.	The palm of the hand should face predominantly down, except for the slight change of pitch as it sweeps out / in during the action. Finger tips should be at the same level as the wrist, not raised.
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		This should result in a stationary position. Control of the body – back of head back in water and contraction of the abdominal muscles and hip flexors are important in establishing the flat body position with the feet at the surface.
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5. Sculling and back crawl leg kick (form of back paddle)	Incorporates sculling as the propulsion with the leg kick. The body on the back should travel head first.	Hand action as above but with the wrist extended so that the finger tips are raised towards the water surface. Same hand movement.
6. Sculling with head first travel. Standard scull.	Using the sculling action to generate travel. A pull buoy may be needed initially to help keep legs raised.	Flat body position, sculling with the finger tips raised towards the water surface.



7. Sculling with feet first travel. Reverse scull.	The most difficult of the sculling combinations – the hand movement is harder to do and the legs, which have the tendency to sink anyway, sink fast if travelling in that direction.	Those with limited buoyancy / those at an early stage may need a pullbuoy / float between the thighs to help keep the legs up. Hand action as above but with the fingertips lowered .
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8. Sculling with change of direction of travel – head first (standard) / stationary (flat) / feet first (reverse). E.g. scull head first away from the side, remain stationary in the centre of the pool, then reverse back feet first to the pool side, stop there and use stationary scull to hold position without bumping into the wall.	Emphasises the importance of the changes of pitch of the hands and the importance of sculling in propulsion.	Push off scull with the fingertips raised to travel head first (standard) / lower fingertips to flat to stay stationary (flat scull) / lower fingertips (reverse scull) to change travel to feet first. No use of feet.
9. On the back with the arms above the head, sculling for travelling feet first. Torpedo scull.	Reproducing the sculling actions in different body positions.	Arms behind the head, wrists extended (standard scull) producing foot first travel. Float between the legs may be needed for poor floaters to start with.
10. As above.	As above.	Without the float for support.
11. On the back with the arms above the head sculling for head first travel. Dolphin scull (or reverse torpedo)	As above.	Arms behind the head, wrists flexed producing head first travel. Hands should be positioned in reverse scull position as if reaching over trying to wipe the surface of a high shelf.
11. On the front with the face in the water, hips / legs at surface head first travel. Head up or down. (Canoe scull)	Introducing sculling on the front. For intermediate swimmers.	Arms below surface, elbows bend and hands below/ to the side of the body, palms facing backwards, sculling (standard) to produce forward travel.



12. On the front with the arms extended above the	Sculling on the front.	Arms extended in front. The palms facing forwards to
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head to travel feet first. (Lobster)		produce feet first travel. Leg float is likely to be needed at the start.
13. On the front with the arms extended above the head to travel head first. (Reverse lobster)	Sculling on the front. Relates to the start of the propulsive movement in Fc, Br and Fly.	Arms extended forward in line with the shoulders, wrists extended for standard scull, palms facing forwards to produce travel feet first. Learners will probably require a leg float.



h) Treading Water

Treading water uses the legs and arms to maintain the body in a vertical position. It enables the swimmer to stay upright in one place while in deep water. It is an important skill to master before pupils start to swim in deep water. It is very much a multipurpose skill as at later stages it is useful in water polo, synchronised swimming, lifesaving and recreational swimming. As well as involving one of several leg kicks it incorporates the skill of sculling and practices (above under sculling, particularly practices 1 – 4 on hand action and flat / support sculling). The most efficient leg kick, as it provides continuous propulsion, is the eggbeater kick but other kicks such as breast stroke kick, scissors kick or even crawl flutter kick can be used. They do not however have the same propulsive force or the same continuous propulsion and thus result in a more ‘bobbing’ technique. While this is not serious if the individual is involved in recreational swimming it is not useful if using it in synchronised swimming or water polo where the more efficient egg beater kick is essential.

PRACTICE (what to do)	USE (when / why to do it)	COMMENTS (teaching points)
1. Treading water in shoulder depth with 2 floats, one under each arm	Providing the chance to try the different leg kicks and establish the vertical position with the support of floats. Eggbeater leg kick is the most effective kick to develop although clearly for survival	Trying the breast stroke kick / scissors or side stroke kick / cycling action / egg beater kick For Br and SS see chapters on those strokes. Eggbeater provides the most

	purposes any kick that supports the body will do.	even support without the rise and fall associated with the other kicks. Eggbeater is like breast stroke leg kick (same flat footed turned out position) with the legs working alternately in opposite directions rather than both kicking down at the same time.
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2. Treading water in shoulder depth with 1 float held out in front.	As above but reduced support	Move on to practicing the preferred leg kick. Aim to have the head just clear. Continuous movement of the legs.
3. Treading water with a float in one hand and one hand on the rail / gutter.	As above.	Use chosen leg kick. Minimum effort to keep head clear.
4. Treading water with one hand on the rail / gutter and the other hand sculling.	Introducing the arm action	Keep the sculling action well under the surface. Hands palm facing down. Smooth continuous action.
5. Treading water in deep water near the side.	Near the side for confidence.	Use chosen leg kick and sculling with both hands. Minimum effort to keep head clear.
6. Treading water in deep	As above. Gradually try to	As above.

water away from the side.	increase the time treading water.	
7. Treading water in deep water away from the side limiting the limbs used e.g. using legs and only one arm, using arms only, using legs only.	For the more able only. Strengthens the element used.	As above.
8. Treading water in deep water away from the side raising one hand / 2 hands / hands and forearms / arms high out of the water.	For the more able only. Increasing the physical demands. Strengthens the leg kick.	Gradual increase in demand by starting with just the hands and increase the amount of the arm out the water as competence develops.
9. Treading water in deep water away from the side turning to face different directions.	For the more able only. Adds variation and versatility.	Use the sculling to rotate the body – palm of hands facing the other way to the direction of the turn.
10. Treading water and travelling <ul style="list-style-type: none"> • forwards • backwards • sideways 	For the more able swimmers only. Adds variety and versatility.	Lean the trunk slightly in the desired direction of travel.