# **Basic Training Drill Progressions**

Submitted by: Mel Roberts, Tooele High School Tooele, UT



Mel Roberts is the Head Coach at Tooele High School, Tooele UT. He has directed his teams to several Utah State Championships and has coached numerous state champions and NISCA All-Americans. Mel is a regular contributor to the Journal and an active member of the executive committees of NISCA. He is currently the All-America Clearing House Chair.

## **General Recommendations:**

Start with stretching. It's a good idea to introduce a rough outline of what skills you will be working on that day. Going over some key words to think about for the stroke of the day will help to get them focused on swimming and specifically on the task at hand.

- Teach everything a minimum of 3 times
- Try to spend about 10 minutes on any one skill
- ❖ Teach some aspect of starts and/or turns every session
- Always stress streamlines, balance, and sculling
- Any one who can kick properly can swim
- Never neglect feel for the water by the feet

## **Progressions:**

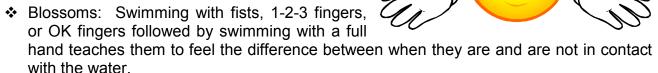
**Balance**: Swimmers need to learn how to use the buoyancy of their lungs as a fulcrum to keep their entire body on the surface...this can be done be either kicking the legs up, or stretching the head and arms forward.

- ❖ Treading water: Keeping their head above water without touching the wall or lane lines, with the torso vertical.
- ❖ Dead man's float: try to keep the back dry with the face in the water.
- ❖ Exhale fully under water: learn to blow a "ribbon" of bubbles out their nose or mouth and be comfortable under water with less than full lungs.
- ❖ Balanced Float: On the stomach with the face in the water, legs extended, and the arms out spread eagle…stretch out the neck and look at the bottom of the pool, try to get the butt and small of the back dry with the legs at or near the surface.
- ❖ Add a kick board to support their torso and have them do a snow angel action with the arms and legs, keeping the body centered and balanced on the kick board…add additional kickboards as they get better.
- ❖ Streamline push offs...first with the arms up, then with the arms tight around the head, finally with the eyes looking down. As they get better have them try to rise to the surface balanced with the finger tips, head, back, and legs breaking the surface at the same time.
- ❖ 4 positions of kicking: front, back, side, side.
- ❖ Balance kicking: superman kick (arms extended above the head), barge kick (arms folded above the head), and arms at the side kick…trying to keep the entire back as dry as possible, neck long, eyes towards the bottom of the pool.





**Sculling / Feel for the water:** Once swimmers can control their bodies in the water, they must develop a feeling for when their hands and feet are in contact with the water.

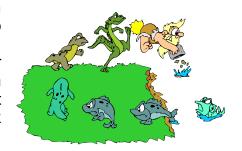


- ❖ Sculling: Using the hand like a blade of a fan, focus especially on the catch point with the arms extended fully forward and finger tips angled slightly down. Hands moving in a fan like or figure 8 motion. If often helps to use a pull buoy or slight flutter kick to keep their legs up.
- Treading water with no kick.
- ❖ Treading water with the arms wrapped around the body will help develop a feel for the water on the tops and bottoms of their feet. Once they can keep their head up using just their feet in a flutter kick add rotations with the arms tightly wrapped around the body so they must use their legs for rotation.



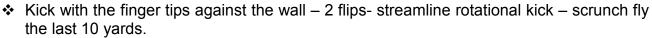
- Swimmers must learn to swim with a "locked" wrist (make the arm longer by adding the hand)...think fingers towards the bottom of the pool, wrist above the hand, elbow above wrist, etc.
- ❖ Focus on learning to propel the water towards the feet, not sideways or down. Always remember that the goal is to move the body past the hand, not vise versa.

**Freestyle:** Kick, Kick, Kick, if a swimmer can feel the water on the tops and bottoms of their feet they can use their kick to maintain forward motion and keep their bodies at the surface. Kick with a board, kick on their backs, kick on their sides...Change it up and focus your energy on teaching them to use their kick for propulsion. Many swimmers kick their feet way out and around, it's important to teach a narrow fast kick that makes them go forward.



- ❖ Catch Up: One arm stays extended until the second slides in the water next to it. This is a very versatile drill and can work on many different aspects of the stroke. Throwing the arms forward will help swimmers learn balance, reaching fully forward on each stroke, developing a proper catch, and sliding the hand in the water fingers first.
- Straight Arms: Have them swim freestyle with their arms straight from finger tip to finger tip. Many people naturally swim with an oppositional style, in other words, as one hand enter the water the other is exiting. This is very helpful as it reinforces forward motion as they will always have one hand pulling the water.

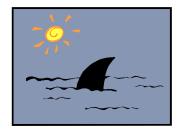
- ❖ Goo drill: you can't pick up a piece of water, and if you disturb it, it flows out your hands. Have swimmers imagine they are sliding their hand into goo and scooping some up in their hands…then they propel the handful of goo towards their feet.
- ❖ 1 arm drills: Any combination of right, left, then full. Keep the opposite arm at the side and breathe to the opposite or non pulling hand. This will reinforce a proper pulling pattern as well as good body rotation.
- ❖ Swim two strokes in to the turn, flip, streamline, and dolphin kick 15 to 20 yards underwater may be done with or without fins.
- ❖ 5 strokes free 5 strokes back
- ❖ Breathe to the right side only for a 50 then the left side only for a 50
- Sculling drills feet first, head first, windshield wiper, etc.
- ❖ 3 2 breathing pattern
- ❖ Finger tip drag up the side, hold, slide back down, then a full recovery
- Sculling at the end of the pull freeze position
- ❖ Shark Drill Freeze each stroke ¾ of the way through, hold the shark fin 2 – 3 seconds
- Kicking arms at the side breathing from the body roll from the hips
- Kicking streamline position 360 degree roll alternate left and right roll
- ❖ Kick 12 ½ yards flip sprint back to the starting point no breath



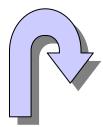
- ❖ Kick with the head up double arm pull and feather the hands back to the starting position.
- ❖ 100's 50 drill 50 swim
- ❖ Set pace clock to count down from 13 seconds swim 25's
- ❖ 50's catch up stroke with straight arm recover
- ❖ 50's 5 second kick on the side then stroke to other side, repeat
- ❖ 50's begin with a turn flip in the middle finish with a turn and set up on the wall

#### CAN BE DONE WITH ALL STROKES - FLY IS TOUGHER

- Egyptian Crawl Swim with one leg bent and out of the water develops fast kick
- ❖ Underwater-water recovery 1<sup>st</sup> half of each length during warm-up
- Double entry raise the elbow up after the first entry and then reenter "finger, wrist, elbow" entry
- ❖ Touch three drill One arm extended, stroking arm touches hip (1), elbow of opposite arm (2), back to the hip (3), the entry – repeat with other arm. Encourages high elbow recovery
- ❖ 3-Stroke Glide take three very fast strokes with a hard kick, after the 3<sup>rd</sup> stroke stretch and glide as far as possible on the side; then repeat
- ❖ Side stroke extended arm pulls and recovers underwater. Breathe on one pull and watch the pull with the face in the water on the other pull
- Swimmer freezes the arms (with one extended and the other at the side) at the flags; keeps the face in the water and kick to the bank (no breath) flips and returns to regular swimming
- ❖ Power kicking hands are grasped behind the back, the head is held up, flutter kick



❖ Turn drill – push off on the back, roll and swim to top, swim and flip in the middle, flip at the wall, flip in the middle, and flip at the finish (flip at check the body position)



Turns: Swimmers need to learn how to flip the legs over the top fast and punch the wall for the push off. Many swimmers are afraid of hitting their feet on the wall – so they will roll slowly resulting in the body sinking lower in the water which will mess up the push off and angle to the surface. Another common fault is taking the time to position them on the stomach before they push off. This will result in a poor body position for the push off in addition to taking time.

#### Progression

- Have the swimmers jump off the bottom in shallow water, flipping, and then standing up on the bottom. This will teach them the importance of tucking the head, rolling into a tight tuck, and keeping their eyes open.
- ❖ From a push off on the stomach with the arms at the side roll into a somersault and have the legs slap the water
- ❖ From a face down floating position roll and have the legs slap the water. These two drills will teach them the value of speed going into the turn
- ❖ Swim 5 strokes flip and slap the legs on the water 5 strokes flip, etc.
- ❖ Push off the wall on the back and glide in the streamline position as far as possible. Have them try to have the entire body break the surface at the same time.
- Practice flipping short of the wall
- ❖ Swim in flip and set up no push off
- ❖ Swim in flip and set up push off on the back glide to the surface
- Swim in flip and punch the wall with the feet while still on the back glide to the surface
- ❖ Swim in flip punch and push off on the back roll to the side
- ❖ Swim in flip punch the wall and push off on the back roll to the side, start the first arm pull with the bottom hand and roll to the stomach
- Swim in flip punch the wall and push off on the back roll to the side start the first arm pull with the bottom hand – roll to the stomach and begin swimming – breathe on the second stroke off the wall
- ❖ ALWAYS HAVE THE SWIMMERS PUSH OFF THE WALL ON THEIR BACKS FOR FREESTYLE

**Backstroke:** Many swimmers find it more comfortable to swim on their backs because they can keep their face dry. The major keys to backstroke are a balanced body with a steady head position, a small high tempo kick, and oppositional arms.

- ❖ Point to roof: Having swimmers pause and point at the roof will help reinforce rotating their shoulder up, which will result in a deeper catch. It is also effective to reinforce the arms becoming more oppositional. Many swimmers like to pull one arm at a time...this slows their momentum, creates a non streamline body, and deters body rotation.
- ❖ Object on forehead: To teach a steady head position, have swimmers kick while balancing a small object like a quarter, rock, or piece of candy on their forehead. As they get better add slow strokes…eventually when they can swim a full lap of backstroke without letting the candy slip off, they can eat it!!
- ❖ Wave drill: As one hand exits the water, wave the hand 6 inches above the surface, back down to the water, and then into a normal recovery. This will give the opposite arm enough time to drop deeper into the water for a more solid catch.
- ❖ 3 Right 3 Left 3 Full: Just as in freestyle 1 arm drills, it will encourage a proper pulling pattern as well as good body rotation. One arm is pulling while the opposite is relaxed at their side. Make sure they bring both shoulders up under their chin on every stroke alternating pulling arms, and relaxed arm. Start with a lap of one arm, then other, then progress to a pattern like 3-3-3 or 2-2-2.
- ❖ Reciprocating arm action on the back (One arm up the other down at the side, both arms are raised out of the water and exchange locations)
- ❖ Scull on the back with the knees close to the chest knees and toes at the surface. Upon reaching the backstroke flags lift the feet out of the water and straighten the legs while sculling the remaining distance.
- ❖ Double arm pull fast kick, hand entry at the shoulders, and no bouncing.
- ❖ 3 fast stroke glide 3 fast strokes glide
- ❖ Swim 10 to 15 yards fast from a push off flip dolphin kick back to the wall underwater
- Lie on the side with the eyes looking straight up 6 kicks stroke, 6 kicks stroke, emphasize body roll and head position. This drill will encourage small fast kicks and oppositional arms.
- Catch up drill with the non-stroking arm held directly above the eyes
- One arm swims with the hand exiting thumb first and entering little finger first
- ❖ Partner drill one partner kicks on the back, with or without fins, holding the head of the other swimmer with the arms fully extended. (Make sure the hands do not cover the ears of the swimming) If the swimmer over reaches, they will hit the arms of the swimmer holding their head.
- ❖ 3 count work on DPS backstroke take three seconds to complete each arm stroke (slows the stroke down)

Sit – Spin – Swim Begin swimming in a sitting position (like in a bathtub) rotating the arms as fast as possible for half a length, then begin stretching out while maintaining the fast turn over.

**Breaststroke:** The first and biggest challenge with breaststroke is coordinating the legs or a "legal" and effective kick. After that the pull is simply to facilitate the kick. Swimmers should be taught to break their stroke 80% propulsion from the kick and 20% propulsion from the pull.

## Learning the kick:

Kick board balance: Lying on the pool deck with their knees bent at 90 degrees, balance a kick board on the bottoms of their feet, toes pointed slightly out. As they get better, try tossing a second kickboard on top of the one resting on their feet. This will help them use the insides of their feet to feel pressure.



- ❖ Kicking on the wall: Arms folded on the gutter, stomach flat against the side, legs straight...to start the kick; bend at the knees, point the toes out, then kick down and around. Do not force swimmers to keep their knees together. The main focus is on feeling the water with the inside of the foot and lower calf.
- Kicking on the back: Have the swimmer hug a kick board onto their chest and kick on their back. This is a natural progression from kicking on the wall as they will still feel the support of the board instead of the wall. Also, it will help keep their body comfortably at the surface.
- One they can kick symmetrically with the toes pointed out, have them kick on a board. Emphasis on distance per kick. Feet up to the butt fast, then toes point out and the feet snap around with a squeeze and a glide when the feet and legs meet.
- ❖ Point Kick: Arms forward in a stream line, eyes looking just below the hands, take three fast kicks. Breath every 3 kicks, allow a small scull with the hands to help get their mouth above the surface.
- Start the kick as soon as the hands move forward
- When finishing the kick the heels should be lifted

#### Swimming the stroke:

- ❖ Kick-Kick-Pull: To focus the swimmer on an 80% kick 20% Pull have them do 2 kicks and 1 pull treating every pull as a break out. The pull should be small, hands only pulling out slightly beyond the shoulders, and elbows coming in sharply below the chin then the fingers "shooting" forward.
- Single Double Single: To help reinforce a fast pull, execute a single arm pull with the opposite arm outstretch for support, then a normal stroke and a single with the other arm. This is also good because it will force them to take a small fast pull with the single arm.
- ❖ Long Glide: Swimmers need to learn to finish each "cycle" completely before beginning the next. Have them pause with their hands stretched forward and court to three giving their feet enough time to completely come together. It helps to have a cue for their feet, so they know when their kick is complete, such as touching the ankles together.



- ❖ Dolphin Pull: This is a more advanced drill to teach rhythm and undulation in the stroke. It may help to play with one or two dolphin kicks per pull. This is also a good method to teach swimmers who just can't do a breaststroke kick properly how to properly work their arms.
- The shoulders should be tucked into the ears when completing the pull.
- Palms should be facing the sides of the pool when starting the pull.
- Start the pull four to six inches below the surface (feel the water with the palms and forearms.)
- Pull downs are forty percent of the race.
- Don't try to breathe on the first stroke; it is shown that it can slow you down.
- For every extra tenth of the second a swimmers stays in the streamline, they can cut a tenth of the second on their overall time.

#### Drills:

Breaststroke pulls with the flutter kick (turn the hands in during recover)

Breathe by arching the back and lifting the shoulders – push the belly button into the spine – roll into the extension



- ❖ Breaststroke pulls with the flutter kick left arm, right arm (keep the elbows up)
- Three kicks three pulls; to to do this sequences of two hundred yards.
- Piston kick (heel speed) marching had sandwich with the head up
- Three strokes over the water and three strokes under
- Breaststroke pulls with the dolphin kick
- ❖ Touch & Go Kicking with the arms at the side touch the heels and kick
- Two underwater pulls and kicks off the turns builds endurance
- ❖ Two underwater pulls and kicks 2 strokes fly with a breaststroke kick finish the length with regular breaststroke
- Breaststroke swims with flip turns
- Swim with the right arm hold the left foot for one length, change to left arm holding the right leg for the next
- 2 kicks one pull (encourages streamlining)
- Breaststroke pull using a pull buoy to immobilize the legs and work on developing a stronger pull

**Butterfly:** Butterfly is either a beautiful synchronization of the whole body or a catastrophe of flailing arms, feet, and a head out of whack. Most of the problem comes from the timing of the breathing and not using the feet to support the body position. For this reason the development of an even kick is crucial to learning butterfly. It is simply too had to have the head and arms out of the water at the same time, this is why it's especially important to focus your efforts on the timing of the breath. The head comes up when the arms are under the body half way through the pull. Height of head, face tilt, etc. are all small ways to increase stroke and body control.

## Teaching Progression:

- Dolphin kick on the back streamline position
- ❖ Dolphin kick on the back kickboard held at the knees
- ❖ Dolphin kick on the stomach streamline position
- ❖ Breathing flutter kick arms at the side, push the chin forward to breathe
- Kite pull with flutter kick no breathing
- ❖ Kite pull with flutter kick breathing each pull
- Finger tip drag recovery breathe every pull
- ❖ Whole stroke dolphin kick at the entry, then flutter kick
- ❖ Whole stroke two dolphin kicks

# Learning the kick:

- ❖ Vertical Kicking: Have them tread water, and then switch from their natural kick to a dolphin kick. Have them focus on kicking their feet an even distance in front of and behind the hips. Try to keep the head and shoulders steady, while the body moves like a snake with the wave getting larger as it goes down to the feet.
- ❖ Fish Kick: Balanced on their side, with one arm outstretched for support, have swimmers try to kick straight down the pool, moving their feet an even distance in front of and behind the hips. When a fish kicks they move equally or the go in circles...the same hold true in the fly kick.
- ❖ Roll Kick: Balanced on their stomach, both arms outstretched...have them imagine they are rolling a tennis ball or dry spot down their back. This is a slow temp kick.

# Learning the stroke

- ❖ One arm fly: There are three distinct types of one arm fly, all are best done with the non-stroking arm at the side; breathing is done to the side as the pulling arm is under the body. Concentrate on a bent arm recovery, sliding the hand into the water, focusing on a soft hand entry and a smooth, rolling, body motion. Second, progress to a straight arm up towards the ceiling, focusing on getting the whole body involved in the dolphin motion...big round arm swings on the recovery will help get the feel of the dolphin motion. Lastly, straight arms low and close to the surface will help kids develop the timing of the stroke...focusing on kicking when the hand goes in the water and when the hand comes out of the water will reinforce dolphin motion and the timing of the stroke. ALWAYS BREATHE WHEN THE HANDS ARE UNDERWATER HALF WAY THROUGH THE PULL!!!
- ❖ 3 Kicks 1 Pull: Taking 3 kick to every one pull allows the swimmers a little more time to prepare for the "big" pull. Or do 5 stroke fly, where the take 5 perfect strokes off the wall then swim easy the rest of the length with their choice of stroke. As in the 1 arm drills, have them focus on the timing of the breath...the head comes up at the point where the hands are under their body just past half way and drops back into the water after the hands exit the water. (Halfway through the pull to halfway through the recovery may be a good way to look at the face up portion of the stroke.)
- ❖ 3 Right 3 Left 3 Full: One any combination will help bring the stroke into the proper rhythm. Always focus on the timing of the breath, kicking when the hands enter and again just before the exit the water. (Kick in Kick out, Kick for speed Kick for air).
- ❖ Pulse drill: More advanced swimmers can integrate the roll kick drill into a drill incorporating the arms. Take a predetermined number of roll kicks, or pulses followed



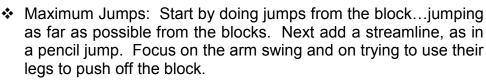
by two or three full perfect strokes. This can be hard for even proficient butterflyers because of the lack of breathing.

## **Breaststroke and Butterfly Turns**

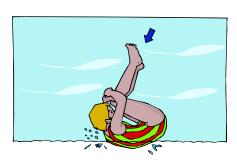
Teaching progression

- Reverse somersault from a floating position with the arms in front – wrap up the knees
- ❖ Reverse somersault from a floating position with the finger tips in contact with the wall
- Swim into the turn pull back into a SS done away from the wall
- ❖ Reverse SS after touching the wall use the knees to create momentum backwards
- \* Reverse SS after touching the wall to position on the wall for the push-off
- Push off the wall with the eyes closed and roll to the stomach
- Do the turn without the wall
- Turn with the push-off for distance
- Full turn (1001, 1002, Pull)
- Emphasize the turn is for changing direction, not for breathing
- ❖ From the time the hands touch the wall until the feet leave the wall < 1 second
- Breaststrokers should kick into the turn instead of pulling.

**Starts**: For an effective start, the swimmer should use the arm swing, the spring from bent knees and the push with the toes to maximize the distance they travel in the air along with a tight streamline position upon entering the water.



- Streamline-Point-Push: Starting from the block the swimmers get into a tight "streamline" position, standing tall with their toes on the front edge of the block. "Point" The swimmers point their whole body, bending at the waist, towards the water to the same spot in the water they entered when they did a maximum jump. "Push" the swimmers leans forward and starts to fall, then pushes with the toes against the block and dives into the water at the "point" spot. Emphasize keeping the streamline position from the time they leave the block until they are ready to start kicking to the surface.
- ❖ Noodle dives hold a pool or noodle across the lane at the height of the block about 2 to 3 feet from the front of the block. This will help them focus on pushing out rather than simply falling into the water.
- Competition dives: Finally teach them the process of step up...take your marks...GO! Emphasize the swing of the arms, the spring from the legs, and the push with the toes.
- ❖ Stand at the front edge of the block with a tennis ball squeezed between the palms of the hands. Do a start trying release the ball while in the air so it travel as far as possible. Emphasizes the importance of the arms during the start.
- Standing jump from the block try to touch the backstroke flags from the jump



- Jump start stand at the back of the block, hands on the knees jump as far as possible using only the legs
- Jump Dive Jump from the bock, at the apex (top) of the jump, lift the hips and dive in.
- ❖ Sailor Dive Do a racing dive from the block, but the arms are kept at the side of the body. This will help the swimmers learn the correct head position to kept the goggles on as well as how to level off after the dive. MAKE SURE THIS IS DONE ONLY DEEP WATER (10 FEET OR MORE)
- ❖ Dive & Glide time from the start command to a point 10 yards out.

#### **Backstroke Starts**

❖ In the shallow end of the pool, have the swimmer stand with their back next to a lane line. Have them jump over the lane line backwards (Fosbury Flop) clearing the line with the hips and feet. This will help them learn the arch and leg flip required for a good start.



- Do a backstroke start, but the arms stay at the side requiring the correct head action
- ❖ Backstroke start with a kickboard placed on the water behind the swimmers hips. Swimmer tries to do a start without touching the board. A noodle stretched across the lane also works well.
- ❖ V-Sits toes over the edge for a backstroke start, at the start command, jump back and away from the wall landing in a V-sit position.

**Turns:** Always teach line – ball – line. Every turn requires that swimmer approach the wall in a straight line body position, get into a small ball to turn quickly, and then push off the wall in a straight line body position.

#### **Special Sets**

- ❖ Broken 200's (75-75-50) with 20 30 seconds rest
- ❖ Broken 200's (25-50-50-50-25) with 15 30 seconds rest
- ❖ Broken 100's 15 seconds at the 50 or 5 seconds at each 25
- ❖ 3-2 Back and Free 3 strokes with the right arm, 2 full strokes, 3 strokes with the left arm, 2 full strokes, repeat

#### Warm-ups

❖ 400 IM/10 – can be done Medley Relay or Ind. Medley order 25 yards of each

> Free – Right arm, Left arm, Finger tip drag, build Back – Right arm, Left arm, Double arm recovery, build Breast – Pull with dolphin kick, piston kick only, 1P – 2K – 3S, build Fly – 1P – 4K, underwater recovery, 3R – 3L – 3S, build