



Squad Structure

July 2017

LTAD Sports Science Framework For Swimming – Squad Structure Rationale

	FUNdamentals	SwimSkills	Training to Train	Training to Compete	Training to Win
Chronological / Biological Age	Chronological/Biological Age: Male 6-9 years Female 5-8 years	Biological Age: Male 9-12 years Female 8-11 years	Biological Age: Male 12-15 years Female 11-14 years	Chronological Age: Male 15-18 years Female 14-16 years	Chronological Age: Male 18+ years Female 16+ years
Development Phases	Movement Literacy	Skill Development	Skill / Aerobic Development	Competitive / Physical Development	Specialisation and Performance Development
Progression	<ul style="list-style-type: none"> • FUN and participation. • General, overall development. • ABCS: Agility, Balance, Co-ordination and Speed. • RJT: Running, Jumping and Throwing. • KGBs: Kinesthetics, Gliding, Buoyancy and Striking. • CKS: Catching, Kicking and Striking. • Speed power and endurance through FUN and games. • Introduction to simple rules and ethics of sport. 	<ul style="list-style-type: none"> • Peak motor development. • Shoulder, elbow, core, spine and ankle stability. • Participation in complementary sports (similar energy system and movement patterns). • FUNdamental technical skills progressively more specific skills towards the end of the stage. • Medicine ball, Swiss ball and own body exercises for strength. • FUNdamentals of ancillary capacities (knowledge and experience). 	<ul style="list-style-type: none"> • Emphasis on aerobic conditioning. • 2nd Speed window • Individualisation of fitness and technical training. • Shoulder, elbow, core, spine and ankle stability. • Participation in complementary sports (similar energy system and movement patterns). • Refinement of specific technical skills • FUNdamentals of tactical preparation. • Introduction to mental preparation. • Moral learning. 	<ul style="list-style-type: none"> • Sport and individual specific physical conditioning. • Shoulder, elbow, core, spine and ankle stability. • Basic tactical preparation. • Individualisation of technical/tactical skills. • Basic mental preparation. • Sport and individual specific “ancillary capacities” (knowledge and experience). 	<ul style="list-style-type: none"> • Improvement of physical capacities. • Shoulder, elbow, core, spine and ankle stability. • Modelling all possible aspects of training and performance. • Frequent prophylactic breaks. • Advanced tactical preparation • Advanced mental preparation • All aspects of training individualised. • Develop further “ancillary capacities” (knowledge and experience - there is no “ceiling limit”).
Growth and Development Considerations	Emphasis on development of skills. 1st Speed (agility/quickness) Window (PSpV1); girls 6-8 yrs, boys 7-9 yrs.	Peak motor co-ordination (PMCV), emphasis on skill development before age 11 yrs for girls, age 12 yrs for boys.	Growth spurt (PHV), emphasis on aerobic development; girls 12-13 yrs, boys 13-15 yrs. 2nd Speed (alactic) Window (PSpV2); girls 12-13 yrs, boys 13-15 yrs 1st Strength Window (PSV); girls at end of PHV	Peak Strength development (PSV), emphasis on strength development; girls 2nd strength window at onset of menarche, boys 12-18 months after PHV	Development of stamina, strength, speed, skill and suppleness.
Swimming Specific Skills	Development of all 4 strokes	Improvement of all 4 strokes Sculling and “feel for water” Development of Starts & Turns	Development of aerobic base, plus all 4 strokes (200m IM).	Start to compete in a wider range of events based on strokes or distance, but not both.	Specialise in an event(s).
Periodisation	No periodisation, but well structured programmes with proper progression.	Single Periodisation (1 x 48 weeks)	Single or Double Periodisation. Double (2 x 24 week macro-cycles)	Double or Triple Periodisation. Double (2 x 24 week macro-cycles) Triple (3 x 15 week macro-cycles)	Double, Triple or Multiple Periodisation. Double (distance) Triple (middle distance) Multiple (sprinters)
Session Numbers	General sport participation 5-6 times per week. This should include land work and multi sport activity.	Sport specific training 4-6 times per week, plus participation in other sports.	Sport specific training 6-12 times per week including land work.	Sport specific technical, tactical and fitness training 8-12 times per week, including land work.	Sport specific technical, tactical and fitness training 10-15 times per week, including land work.
Session Length	30-45 minutes	60-90 minutes	2 hours	2 hours	2+ hours
Training Hours	Sessional.	4-7 hours per week in water; 1-2 hours per week land work.	12-24 hours per week in water; 2-3 hours per week land work.	16-24 hours per week in water; 3-4 hours per week land work.	20-24 hours per week in water; 3-6 hours per week land work.
Training Volume	Skill acquisition	8,000m – 16,000m/week	At beginning of Training to Train: 24,000m – 32,000m/week. Working towards breakpoint volumes (2,100–2,500+ km/year or 44km–52+ km/week over 48 weeks) at maturation (13/14/15 years).	Depends on specialisms, but breakpoint volume maintained. Distance swimmers cover more.	

Swimmer Pathway



Beginners
Improvers
SwimActive

JD1
JD2
JD3

County Age

County
Youth/
Senior

City Link
City Squad

Regional
Age

Regional
Youth/
Senior

Masters

National
Age

National
Youth/
Senior



Squad Structure

- Structure:** The UEA City of Norwich Swimming Squad Structure is based on long-term athlete development principles. The structure will enable every swimmer to maximize their long-term potential. The squad structure will evolve in line with sports science guidelines, national governing body recommendations and as our club grows.
- Squad Criteria:** Provides performance and conduct guidance to enable a swimmer to be **considered** for squad movements. Squad movements will be discussed at coaching team meetings following a competition. 'Potential' relates to the training ability, technical ability, attitude and aptitude of the swimmer. Interim squad movements can **only** be made at the discretion of the Head Coach. The club reserves the right to move swimmers between squads on the recommendation of the Head Coach. If the criteria is not met and maintained then a swimmer may be moved to a different squad in order to better meet their needs. This may include moves to SwimActive.
- Sessions:** A swimmer can attend their squads allocated training sessions. They are **not** allowed to attend any other squad's training sessions. Under exceptional circumstances a swimmer may be instructed to attend another squad's training session by the Head Coach. Core sessions are to be attended by every swimmer in that squad. Other sessions will be prescribed in consultation with the squad coach to individualise the swimmer's programme.
- Fees:** Monthly payment by standing order – see website for squad fees. Your standing order must always be up-to-date.
- Competitions:** Each squad has an annual competition plan. This has been designed to maximize the swimmers performance. Part of the criteria for each squad is to follow the annual competition plan. Swimmers are not allowed to enter competitions outside of the annual competition plan. Under exceptional circumstances a swimmer may be instructed / authorised to attend a competition outside of the plan by the Head Coach.
- Objectives:** These are the goals and aims for the squad. The squad coach will discuss short, medium and long-term goals with swimmers.
- Training Kit:** Having the required training kit is an aspect of the squad criteria. Swimmers must have **all** the required training kit for their squad. Check kit requirements before squad movements and start new squads with the correct kit.

Aqua Academy FUNdamentals (Movement Skills) > SwimSkills

The academy is in **addition** to your swim school lessons at your swim school.

Develops:	ABC'S Agility, balance, coordination & speed KGB'S Kicking, gliding, buoyancy & striking Competitive skill 4 Strokes Swimming starts, turns & finishes Speed, power & endurance Rules & ethics of swimming
Through:	Well structured programs & progressions Fun
Location:	Hewett School Swimming Pool
Lead Coach:	Catherine Markwell
Young Volunteers:	Our teachers are assisted by a number of Young Volunteers working towards different sports leader's awards.
Session Times:	See squad timetable
Fees:	Monthly payment by standing order – see website for fees
Criteria:	Swimmers are selected by their swim school teacher and/or talent identified by members of the UEA City of Norwich Swimming Club and nominated to the UEA City of Norwich Head Age Group Coach. Places are open to swimmers from all Learn to Swim schools in the Norwich. Parents are then contacted by e mail and invited to the Academy. Teachers may contact the Head Age Group coach with their nominations at any time (link to enquiry form).
Age:	Girls 5 – 8 years Boys 6 – 9 years
Objectives:	Why swimmers warm up and swim down The separation of lane swimming by use of the pace clock Stroke counting and improved stroke efficiency in all 4 strokes To swim 200m without stopping To be able to execute basic tumble turning and touch turns The ability to execute the drills highlighted by the academy teachers To be able to plunge, backstroke and track start from the side with different stroke transitions To complete ASA Preliminary Competitive Start Award
Competitions:	Qualifying swimmers are expected to be available for / enter: Club championships Mini Meets
Progression:	JD3 (upon meeting criteria), County Squad or Improvers Swimmers are permitted to complete a number of cycles within the Aqua Academy.

JD**FUNDamentals > SwimSkills > Learning To Train**

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar JD3 Academy Objectives, Age 7-9, Head Coach Discretion JD2 Skill Test Set Objectives, Age 8-10, Head Coach Discretion JD1 Skill & Training Test Set Objectives, Age 9-11, Head Coach Discretion
Develops:	Competitive skills 5 Stroke skills Swimming starts, turns & finishes Speed, power & endurance Sculling & feel of water Warm-up & cool down Rules & ethics of swimming Well-structured programs & progressions Disciplined & consistent swimming behaviours Re-visiting FUNDamentals Fun
Lead Coach:	Jane Blackwell
Minimum Sessions:	JD3 – 2 JD2 – 3 JD1 – 4
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: County Championships Club Championships County Relays Mini-Meets Junior Leagues & Arena League 1, 2 & 3 Open Meets as directed by coach
Objectives:	Meet the criteria for squad progression Complete set of short-course PB's as set by the coach
Training Kit:	Kickboard, pull buoy, training fins (short), small float, mesh bag
Progression:	National, Regional, County or City pathway (criteria dependent)

City and City Link**SwimSkills > Training to Train**

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar Priority 1 – County Challenge Priority 2 – L3 QT Priority 3 - Potential Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Technical skills Commitment to training Specific competition targets Re-visiting SwimSkills Fun
Lead Coach:	Alex Spinner
Minimum Sessions:	1
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: County Challenge Club Championships Junior Leagues & Arena League 1, 2 & 3 Open Meets as directed by coach
Objectives:	County Challenge Meet the criteria for squad progression Complete set of long-course & short-course PB's
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag Snorkel, Paddles See website for more info / size guides
Progression:	County Pathway (criteria dependent)

County Age	SwimSkills > Training to Train
Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar Age 10-14 Priority 1 - County QT Priority 2 – County Challenge Priority 3 - Potential Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Technical skills Commitment to training Specific competition targets Introduction to tactical preparation & mental skills Optimise hydration & nutrition Flexibility and suppleness Re-visiting SwimSkills Fun
Lead Coach:	Catherine Markwell
Minimum Sessions:	2
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: County Championships County Relays County Challenge Club Championships Junior Leagues & Arena League 1, 2 & 3 Open Meets as directed by coach
Objectives:	County Qualifying Time Meet the criteria for squad progression Complete set of long-course & short-course PB's
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag Snorkel, Paddles See website for more info / size guides
Progression:	Regional Age/Yth, County Yth, City (criteria dependent)

County Yth

Training to Compete

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar Age Girls 12+ Boys 13+ Priority 1 - County QT Priority 2 – County Challenge QT Priority 3 - Potential Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Technical & tactical skills Commitment to training Specific competition targets Specific strokes or distances Mental preparation pre, during & post competitions Re-visiting SwimSkills Fun
Lead Coach:	Alex Spinner
Minimum Sessions:	2
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: County Championships County Relays County Challenge Club Championships Arena League 1, 2 & 3 Open Meets as directed by coach
Objectives:	Regional Qualifying Times Meet the criteria for squad progression
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag Snorkel, Paddles See website for more info / size guides
Progression:	National Yth/Sen, Masters or County Yth (criteria dependent)

Regional Age**SwimSkills > Training to Train**

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar Age 10-14 Priority 1 - Regional QT Priority 2 – County QT + Potential Regional QT Priority 3 - Potential Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Technical skills Commitment to training Specific competition targets Introduction to tactical preparation & mental skills Optimise hydration & nutrition Flexibility and suppleness Own body weight land training Re-visiting SwimSkills Fun
Lead Coach:	Jason Naylor
Minimum Sessions:	3
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: Regional Championships County Championships County Relays Club Championships Junior Leagues & Arena League 1, 2 & 3 Open Meets as directed by coach
Objectives:	Regional Qualifying Times Meet the criteria for squad progression Complete set of long-course & short-course PB's
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag Snorkel, Paddles See website for more info / size guides
Progression:	National Yth/Sen, Regional Yth or County Yth (criteria dependent)

Regional Yth

Training to Compete

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar Age Girls 12+ Boys 13+ Priority 1 - Regional QT Priority 2 - County QT + Potential Regional QT Priority 3 - Potential Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Technical & tactical skills Specific strokes or distances Core body strength, flexibility & suppleness Warm-up & cool down protocol How to stretch & when to stretch Mental preparation pre, during & post competitions Re-visiting SwimSkills Fun
Lead Coach:	Lewis Smith
Minimum Sessions:	3
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: Regional Championships County Championships County, Regional & National Relays Club Championships Arena League 1, 2 & 3 Open Meets as directed by coach
Objectives:	Regional Qualifying Times Meet the criteria for squad progression
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag Snorkel, Paddles See website for more info / size guides
Progression:	National Yth/Sen, Masters or County Yth (criteria dependent)

Masters

Lifelong Participation

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions Follow competition calendar if competitive swimmer Age 18+ Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Technical & tactical skills Specific strokes and distances Mental preparation pre, during & post competitions Re-visiting SwimSkills Fun
Lead Coach:	Robert Nesbitt
Minimum Sessions:	2
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers wishing to compete are expected to be available for / enter: National Masters Championships Regional Masters Championships County Masters Championships Masters Meets as directed by coach Swimmers will be encouraged to enter: World & European Masters Championships
Objectives:	International Champion / Medallist / Competitor National Masters Champion / Medallist / Competitor Regional Masters Champion / Medallist / Competitor Lifelong participation
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag See website for more info / size guides

National Age**SwimSkills > Training to Train**

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar Age Girls 10-14; Boys 11-15 (talented swimmers may be fast-tracked) Priority 1 - Regional QT + Potential National Qualifier Priority 2 - Regional QT Priority 3 - Within 3% of a Regional Qualifying Time + Potential Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Technical skills Commitment to training Specific competition targets Introduction to tactical preparation & mental skills Optimise hydration & nutrition Flexibility and suppleness Own body weight land training Moral learning Re-visiting SwimSkills Fun
Lead Coach:	Karen Pinniger
Minimum Sessions:	As directed by coach
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: British / ASA Summer Championships Regional Championships County Championships County, Regional & National Relays Club Championships Junior League & Arena League 1, 2 & 3 Open Meets as directed by coach
Objectives:	National Qualifier Regional Champion / Medallist / Finalist / Qualifier Meet the criteria for squad progression Complete set of long-course & short-course PB's
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag Snorkel, Paddles See website for more info / size guides
Progression:	National Yth/Snr, Regional Yth or County Yth (criteria dependent)

National Yth/Snr**Training to Compete > Training to Win**

Squad Criteria:	Sign & adhere to Swimmer Code of Conduct Attend required number of sessions & follow competition calendar Age Girls 12+ Boys 13+ (talented swimmers may be fast-tracked) Priority 1 – British / ASA National Qualifier Priority 2 - Top 60 British Rankings age 31/12 Priority 3 – Top 80 British Rankings age 31/12 Head Coach Discretion
Develops:	Aerobic & anaerobic capacity Aerobic or anaerobic power Advanced technical & tactical skills Specific strokes or distances Individualisation S&C weights, core, flexibility & suppleness Warm-up & cool down protocol Advanced mental preparation pre, during & post competitions Re-visiting SwimSkills & Training to Train Fun
Lead Coach:	Alex Pinniger
Minimum Sessions:	As directed by coach
Fees:	Monthly payment by standing order – see website for fees
Competitions:	Qualifying swimmers are expected to be available for / enter: British Championships British & ASA National Summer Championships Regional Championships County, Regional & National Relays Club Championships Arena League 1, 2 & 3 Open meets as directed by coach
Objectives:	International Team Selection National Champion / Medallist / Finalist / Qualifier Regional Champion / Medallist / Finalist
Training Kit:	Kickboard, pull buoy, training fins (short), ankle band, mesh bag Snorkel, Paddles See website for more info / size guides
Progression:	Masters or Regional Yth (criteria dependent)