Nautical Studies

The curriculum intent in Maritime studies is in 2 main phases. In the early years, it is a very good way to introduce outdoor adventurous activity to our younger pupils, with all that this entails in terms of developing self-esteem, character development and resilience, this is taught mainly through 3 days of docks lessons in year 7 and 8. By having the docks days as intensive all day sessions 3 times a year, we make best use of time afloat.

The school has a unique location with lots of maritime history on the school's doorstep. This enables us to give our students cultural enrichment through river walks, visits to museums, such as the Maritime Museum, HMS Belfast and Museum of the Docklands. We also visit ships that come up the Thames on special occasions. The school's historic maritime connections means that our students get opportunities to hear from visiting speakers and go on special visits that are not offered in many schools. The maritime curriculum is threaded through the other subjects across year 7 and 8 with specifically themed lesson material.

From year 9 upwards we enter the second phase of maritime studies when it becomes an optional subject all the way up to the sixth form. The main drives for year 9 to 13 are both to prepare students for the world of work and further study in maritime disciplines. The students who take these courses will leave LNS with an understanding of the importance of the maritime economy to the UK, how technology is changing the way maritime works, and as rounded citizens who know the importance of looking after the marine environment whilst also working efficiently and safely. Maritime careers play a big part in the syllabuses that we teach. A Key point is that “you do not have to get your feet wet” to work in maritime. There are many opportunities in Maritime London, in law, finance and broking that need bright young minds, that also appreciate the considerations of the maritime world, from the trade in metal ores to the import and export of goods by container ship. Many of our students have gone on to work on the Thames, for companies such as Thames Clippers, the Port of London Authority, or have gone deep sea on Merchant and Royal Navy ships.

In years 10 and 11, we set high aspirational targets for our students. All students are offered the Open Awards level 1 and 2 awards in maritime studies. This will entail some time at the docks for students to achieve the level 2 unit Practical Boat handling. All students should be able to achieve the level 1 award, with more academic students also able to achieve level 2 units in protecting the Marine Environment and level 2 unit Working in the Maritime Sector.

The level 3 sixth form course prepares students either for maritime maritime college and university entrance, or for direct entry into maritime apprenticeships.

How the maritime curriculum links to whole school intent:

Successful Pupils - Every pupil is encouraged to take maritime qualification if they want to whilst they are at LNS. This ranges from national governing body

certificates such as RYA and British Canoeing through to aspiring to achieve captain and chief engineer qualifications when they are older. The level 3 course is very successful at progressing students onto fully funded Merchant Navy cadetships at maritime universities, as well as onto apprenticeships/careers both port-based and at sea.

Literate Pupils - English is the international language of the sea, in addition there is a whole specialist maritime language of nautical terms and expressions. We take great care to ensure our students know the correct terminology from year 7 upwards. Clear communication skills are of course important for the radio operators licence that we teach students in upper school. When the students leave LNS to gain professional maritime qualifications, these are always assessed with an MCA Oral Exam. As part of the students cultural maritime education we also bring in elements of maritime history, literature and art to engage and inspire the students.

Responsible pupils - Three themes thread through the maritime curriculum at all key stages: safety and risk assessment; care for the environment and working as a responsible crew. This applies equally to lessons on the water as it does in the classroom.

Aspiring pupils - The school is very lucky to have such a good network of pupils who have left LNS to go onto successful maritime careers. We often have visits from these people who inspire the next generation to follow in their footsteps. The maritime curriculum is structured so that in year 9, the pupils know why they need to do their best in the STEM subjects.

Year 9	Year 10	Year 11	Year 12 & 13
T1 Practical boat handling skills. Students will learn how to set up a boat and sail a dinghy on all points of sail. By the October half terms they should be able to apply the RYA standard methods of tacking and gybing and start to apply some of the "5 essentials" of sailing. **T2:**Rowing and museum visits **T3:** Vessel Types Students will study the types and adaptations of commercial and navy ships, workboats, passenger vessels, fishing vessels and water sports craft	**In year 10 we teach both the core of the Open Awards Level 1 Award in Maritime Studies, and the Practical boat handling unit from the Open Awards Level 2 Award in Maritime Studies** **L2 T1:** Practical Boat handling This is an opportunity for students new to the sport of sailing to have an intensive introduction. Students who are competent sailors will progress into more advanced boats	**In year 11 all students study the remaining level 2 award units. By the october half term, we will enter the students for the level 1 award completion certificate, and the level 2 practical boat handling certificate. From October through to the following May, the students will study the level 2 unit *Working in the Maritime Sector* and *Protecting the Marine Environment*** T1: Final summative assessment of	**We currently follow a year A / Year B curriculum patterns with year 12 and13 taught together** **Year A** **Yr A T1:** Operational and regulatory environment Port services; role of the the MCA; types of surveyor; types of marine insurance and P and I; role of the IMO; key codes and regulations **Yr A T2:** Operational and regulatory environment Penalties for breach of

T4: Rowing and museum visits **T5:** Practical boat handling Skills This term we are expanding on the 5 essentials to introduce more advanced sailing. Topics include an introduction to racing, to fine tune 5 essentials; sailing up to a mooring and lee shore landing. **T6:** Practical boat handling Skills This term the racing skills are honed further with strategies to control speed. This is mixed in with more advanced skills where speed control is critical such as man overboard recovery. The students also learn different capsize recovery techniques. One of their homework activities is to write a risk assessment of a day of racing to synoptically draw together their learning.	**T2 and T3**: Level 1 course All students complete the level 1 award in maritime studies. This is completed via 3 work books that cover, health and safety in maritime, maritime careers, and an assessment of their knowledge of ship types **T4, 5 and 6:** During these terms we will do the summative assessment of the students sailing skills; the students will write their performance review task and action plan for future development.	the level 1 course and the level 2 practical boat handling unit **T2:** Working in the Maritime Sector This term focuses on the regulatory framework of the maritime sector looking at key laws and codes that affect employment in the maritime sector. The students study the 4 pillars of international maritime regulation; the role of the IMO, ILO, FAO and MCA. We also cover marine accident investigation and the impact of drugs and rest patterns on maritime safety. **T3:** Working in the Maritime Sector Health and safety at work with reference to the COSHH PUWER and LOLER regulations. We then cover the role of safety officials, permits to work, code of safe working practices and the principles of risk assessment at work. **T4:** Protecting the Marine Environment The term starts with a review and sign off of the unit working in the maritime sector. We then start on the next unit with a study of international marine pollution rules, the role of the IMO and the MarPol code. **T5:** Protecting the Marine Environment We start by investigating the effects of accidental	health and safety; types of emergency in port and at sea; response to accidents and near misses; maintenance of records; how to use resources to reduce environmental impact; alien species control. **Yr A T3:** Operational and regulatory environment GMDSS; vessel tracking and monitoring. Passage planning vessel preparation; causes of tides and effects of tides on sea state, including headlands, races and estuaries. **Yr A T4:** Passage planning Tidal curves; tidal atlases; effect on course to steer and allowance for it; interpolation of rate; route planning. **Yr A T5:** Practical boat handling skills Explain how to and demonstrate the handling of a powered vessel in a range of settings and conditions. **Yr A T6:** Practical boat handling skills Ferry gliding, towing alongside; emergency action plans; produce a session plan and risk assessment. **Year B** **Yr B T1:** Vessel design and construction Merchant Navy vessel types, design and operation; Fishing vessel design and operation. **Yr B T2:** Vessel design and

		and operational pollution on the marine environment. What are the consequences of maritime activity and ports. The students then study the Responsible Fishing Vessel Standards	construction responsible fishing vessel standards; workboat design an operation; leisure vessel design and operation. **Yr B T3:** Vessel design and construction Stability and construction terminology; boatbuilding materials and techniques; engine drive systems; effect of hull shape on fuel burn and speed. **Yr B T4:** Vessel design and construction Stable and unstable equilibrium; metacentric height; introduction to ship stability. **Yr B T5 and 6:** Maritime Trade Students will learn about the importance of maritime trade to Maritime London, and the UK economy; the difference between chartered tramp shipping, and scheduled liner services; how shipbroking and marine insurance works; the life cycle of a ship, including the ordering and building process, through regular use and survey inspection regimes, lay up of ships; vessel sale and purchase; the scrapping of ships; how ports and trade are evolving; geography of world trade.

Literacy Link: