

## Teacher Guide

### Introduction to Snorkelling

Snorkelling can be considered as an extension activity once students have learned the basics of swimming. It is a very popular activity that utilises relatively cheap equipment, a mask, snorkel and fins. A wetsuit is often worn in colder water. The primary attraction of snorkelling is to observe under water life in its natural environment. However it can lead enthusiasts to the sport of under water hockey or to a SCUBA diving course.

The snorkel is a tube that is about 30cm long, often made of plastic and it has a J shaped mouth piece attached at its lower end. They should be attached to the left side of a mask with a rubber keeper. Divers keep their regulator on their right hand side. The snorkel is used for breathing air from above when the face is in the water. The most common type and least expensive are those that automatically flood when they are submerged. The snorkeller then has to clear this water by one of two methods. The basic **blast method** relies on the snorkeller making a strong exhalation through the tube upon returning to the surface, forcing the water up and out. The more advanced **displacement method** uses less energy, is more efficient but may need a lot of practice. On rising the head and snorkel are tilted back so the eyes are looking at the surface, the snorkeller then slowly displaces the water in the tube with expired air. Upon reaching the surface the process should be complete so the head is tilted back to its normal position again. The first breath after clearing the snorkel, by either method, should be tentative as there may be residual water in the snorkel.



Snorkel gear including togs and rash shirt

A well fitting mask is essential for under water viewing. The mask, unlike swimming goggles, covers the eyes and the nose. This allows participants to equalise the air pressure in the mask when under water. The glass should be safety glass and should have appropriate signage. To check a mask fits, students should hold them up to their face, covering eyes and nose and breathe in. The mask should be sucked into position and remain in place when the hands are removed. This process ensures that the seal is satisfactory between face and mask. The mask should have adjustable straps. This is often split at the back to stop it slipping.

Every mask has a tendency to fog up. This can be remedied by spitting into the mask and wiping it over and rinsing it out. To wear the mask it is placed in position on to the face then position the back strap over the top of the head.

Every person has to be able to clear the mask of water if and when the seal leaks. To do this, students should hold the top of the mask and breathe out. The expired air forces the water down and out.

Fins are worn to help with propulsion, allowing greater distance with little effort. As fins increase the size of snorkellers feet allowing them to create more leverage against the water, it may be best to use shorter fins initially to avoid getting cramp in the legs. However, swim training fins are too short and so not suitable for open water use. There are two main types of fins, the open adjustable heel strap or enclosed heel types. The open heel strap type may be more flexible for children as several shoe sizes can be accommodated by altering the strap. Socks can be worn with either type to prevent rubbing. Fitting the enclosed heel fins is important as chaffing can occur if they are too small or large. The heel section of these fins should be turned back to allow the foot to slip in and then the heel is returned to normal.

Once fins are on the feet normal walking becomes difficult so the fins can be put on in the water or students can be encouraged to walk backwards to the pool edge. If the water is deep enough then students can jump in feet first. However they need to hold the mask in place on their face. If the water is shallow they do a normal safe entry lowering themselves in. Do not dive in head first when wearing a mask as it could cause injury or loss of mask.

Students should practice their breathing through the snorkel before they enter the water. Breathing should be slow and regular and occasionally a forceful breath out could be added to simulate the clearing of the snorkel of water. The face should be in the water when snorkelling with eyes looking down so the snorkel is in a vertical position. Arms should be by the side. The leg kick is slower than when swimming and is with slightly bent legs. Fins should not break the surface as this wastes propulsive effort. Short bursts of speed can be obtained by doing a dolphin kick rather than fining.

Once the students are comfortable with the snorkelling technique on the surface of the water, duck diving can be introduced. This can be extended by diving through hoops anchored at different depths by ropes tied onto weights (milk bottles full of sand). Items can be picked up from the pool floor. This allows the students to practice clearing their snorkels and possibly masks upon surfacing. Best practice on surfacing from a dive is that a leading arm is extended high above the head so the hand breaks the water surface first to protect the head if diving near a boat.

Best practice for snorkeling requires the use of a buddy system. A buddy has a safety role as well as providing companionship. The relationship with the buddy should start before entering the water to plan where to go, for how long and to check each other's gear. A system of hand signals needs to be established for under water communication. This needs to be agreed upon before entering the water. Both buddies should leave intentions with family or friends. Once at the water buddies can discuss the conditions, help with and check each others gear and equipment. They provide support for each other especially if they observe the one up and one down rule and can keep an eye on changing conditions. Once the experience is over they can talk, evaluate and prepare for the next dive.

For further details on the one up and one down rule and hand signals see:

**Using a Buddy System in Aquatics Education** Teacher Guide WaterSafe Auckland