

Safe Snorkelling Workbook

Second Edition
Student Worksheets



Wet Paper

Name: _____

INTRODUCTION

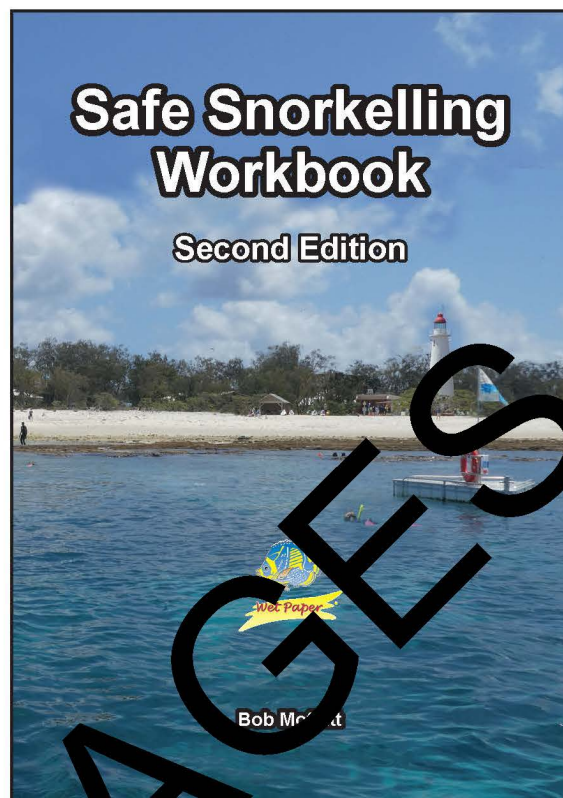
This set of worksheets are to be used with the 2023 Safe Surfing Workbook 2nd Edition.

About the worksheet questions

The workbook is not a trick question book.

Each section has objectives, and if you are studying at school, your teacher may put a different verb in.

In addition, all the answers are referenced, so it's just a matter of getting organised, looking them up from the page referenced in the book opposite and writing them out.



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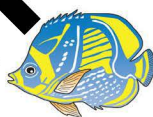
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WORKSHEET 1: EQUIPMENT SELECTION

Q1. Identify five basic pieces of equipment required for snorkelling (Page 3).

Q2. List any three pieces of advice to take when purchasing equipment giving reasons for your answer (Page 3).

Q3. Give two reasons why you should use your own equipment (Page 3).

Q4. Why should you check equipment after taking it out of storage? (Page 3)

Q5. Name three types of mask describing one feature of each (Page 3).

Q6. What are any three things to consider when choosing a mask? (Page 4)

Q7. What is a simple check to see if a mask fits properly? (Page 4)

Q8. How is a mask adjusted? (Page 4)

Q9. Why does a new mask have to be cleaned before use? (Page 4)

Q10. What three things do all snorkels include and for what purpose? (Page 5)

a.

b.

c.

PPE experiment

Based on an original activity by Mick O'Connor

Objective: To experiment with snorkelling PPE swinsuit materials to determine equipment care.

Part A: Swimsuits and heat

Aim

To analyse how heat affects materials used in snorkelling equipment.

Materials

- Old swimsuit or wetshirt
- Hair dryer or heat gun
- Retort stand and clamp
- Thermometer
- Scissors

Method

1. Note the composition of the swimsuit.
2. Cut the clothing into 10 cm by 2 cm strips.
3. Using retort stand, hold a strip between two clamps.
4. Clamp a thermometer close to the fabric.
5. Using the hair dryer or heat gun, subject the fabric to different temperatures and record your observations in a table.

Part B: Swimsuits and chemicals

Aim

To analyse the effect of common chemicals on swimsuits.

Materials

- Old swimsuit or wetshirt
- Bleach
- Petrol
- Nail polish remover
- Methylated spirits

Method

1. Note composition of swimsuit.
2. Cut the clothing into 10 cm by 2 cm strips.
3. Put one chemical on each strip.
4. Observe the results and record them in a table.

Results

Conclusions

Extended response

Analyse your results so you can prepare a warning statement that could go on the garment at a retail outlet.

Q11. What is a purge valve and why is it useful? (Page 5)

Q12. Give one reason why a close function is useful on a snorkel? (Page 5)

Q13. On what side of the head should a snorkel go? (Page 5)

Q14. Describe two types of fins and state one advantage and disadvantage of each. (Page 6)

Q15. a. What is a stinger suit? b. Why is it used? c. When and where should it be worn? d. What is it made of? (Page 7)

a.

b.

c.

d.

Q16. a. What is a wetsuit? b. why is it used? b. What is it made of? c. Where should it be worn? (Page 6).

a.

b.

c.

Q17. Describe the relationship between water temperature, wetsuit thickness and buoyancy (Pages 6 and 7).

Q18. a. What is a UPF 50 rash vest? b. What is it made of? c. Why is it used and where should it be worn? (Page 7).

a.

b.

c.

d.

Q19. a. What is a weight belt and b. why is it used? (Page 9).

a.

b.

Q20. Calculate how much weight to add to a weight belt for a 3mm wet suit for an 80kg snorkeller (Page 9).

Q21. What is the difference between a shark repellent magnetic band and an electromagnetic field? (Page 10)

Equipment care and maintenance

Q22. What two things can you do to care for your equipment? (Pages 3 - 9)

a.

b.

Q23. Describe equipment care and maintenance procedures for each of the following pieces of snorkelling equipment. Snorkel/ face mask purge valve, wet suit, rashie, camera, knife, gloves, weight belts (Pages 3 - 9).

Q24. Name one thing you should not do with your wet snorkelling gear, giving a reason (Page 8).

WORKSHEET 2: SKILLS KNOWLEDGE

Q.1 Why do you need to demonstrate the physical skills listed in Part A above? (See top of this page)

Q2. What's the difference between the safety step out (giant stride) and push off water entries from the pool and boat? (Page 14)

Q3. On what side of your head do you fit your snorkel and why? (Page 14)

Q4. How do you know if your fins are fitted correctly? (Page 14)

Q5. What is the best technique to use with your fins? (Page 15)

Q6. What should you avoid while finning and why? (Page 15)

Q7. Why is floating while looking down a good idea while snorkelling? (Page 15)

Q8. Draw a dive flag and colour it in. Why is it necessary to take while snorkelling? (Page 15)



Q9. a. What is the one up / one down rule? b. Why is it compulsory for a buddy to obey? (Page 15)

a.

b.

Q10. How do you equalise your ears? (Page 16)

Q11. How do you duck dive? (Page 16)

Q12. What are three ways to clear a snorkel? (Page 17)

Q13. What are two ways to clear a mask? (Page 17)

Q14. Name two ways you can stop your mask from fogging up (Page 17)

Q15. Describe how to ditch a weight belt (Page 18)

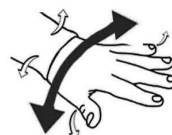
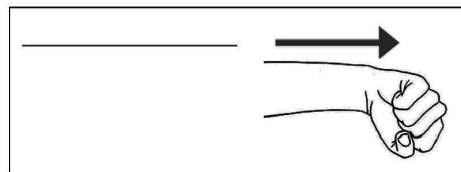
Q16. Name three rescue methods (Page 18)

Q17. Identify the signals in the illustrations below: (Page 18)

On the surface



In the water



Snorkelling certificate design

Design a snorkelling competency certificate with the aim of recording your personal physical fitness skills so you have the stamina to swim out and back to a snorkelling site, duck dive and have fun for about 30 minutes as well as demonstrating the stamina to rescue your buddy and keep afloat for 10 minutes until help arrives. Here are some suggestions:

Part A: Physical fitness

Checklist

- ☐ Distance swim 200m non-stop any stroke no time limit
- ☐ Tread water 10 minutes
- ☐ Underwater swim one breath, no push off or dive
- ☐ Underwater swim using three breaths during swim

Part B: Snorkelling skills

Checklist

- ☐ Select and fit a mask.
- ☐ Select and position a snorkel correctly.
- ☐ Defog and clear a mask in and out of the water.
- ☐ Fit a set of closed or open healed fins so they are snug and tight.
- ☐ Select and fit a rashie/stinger suit or wet suit to correct size and thickness appropriate to the area to be snorkelled.
- ☐ Step out from a pool edge as if it were entering from a rocky or reef edge.
- ☐ Push off from a pool edge as if you were entering from the beach or from a dive platform or ladder.
- ☐ Duck dive, equalise ears, swim along the pool floor and surface.
- ☐ Clear a snorkel
- ☐ Demonstrate signals for:

I need help, I need a pickup, OK at surface and underwater, danger - in that direction, something is wrong.

WORKSHEET 3: RISKS, HAZARDS AND PREVENTION

Q1. What is a risk? (Page 21)

Q2. What is a hazard (Page 21)

Q3. Give three examples of personal hazards. (Page 21)

Q4. What is a preventative measure and give an example? (Page 21)

Q5. Using nervousness as a hazard, list the six step process to reduce the hazard using 1, as the most preferred and 6 as the least preferred (Page 21)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Q6. Compare the levels of two different hazards: (a) coral and (b) a large wash striking a snorkel entry/exit platform (Page 21)

a. **Coral**

b. **Wash striking entry/exit platform -**

Q7. What is situational awareness? Use a rip current as an example to explain the term (Page 21).

WORKSHEET 4: SUNBURN, HEAT GAIN AND LOSS

Q1. What is the type of radiation hazard that causes sunburn and how can it's damaging effects be prevented? (Page 22)

Hazard -

Prevention -

Q2. What is the background behind melanoma, what are the symptoms and why is it dangerous? (Page 22)

Q3. What is hyperthermia? (Page 22)

Q4. Describe any five symptoms for heat exhaustion and list any three preventative measures. (Page 23)

Symptoms:

Preventative measures:

Q5. What is the most dangerous form of hyperthermia and what is its treatment? (Page 23)

Q6. Why do you get colder in water than in air? (Page 23)

Q7. What thickness range wetsuit would you wear in water temperatures 16-20 °C (Page 23)

Q8. What is hypothermia, why does it occur and why it dangerous? (Page 23)

Q9. What are possible causes of cramps? (Page 24)

Q10. What is the best thing to do if you or your buddy gets a cramp? (Page 24)

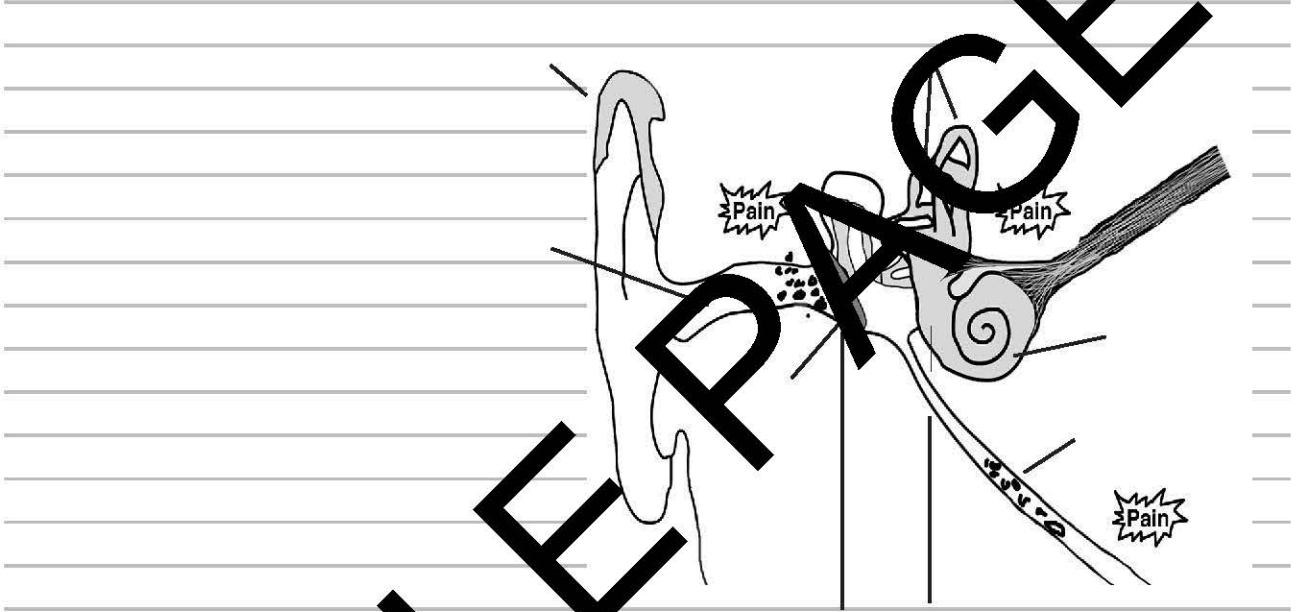
WORKSHEET 5: EYES, EARS AND SINUSES

Q1. What can cause major damage to the eyes while on the water and what should you do to prevent it? (Page 24)

Q2. What causes ear infections and what can be done to prevent them? (Page 25)

Q3. In the diagram of the ear below: (Page 25)

- Mark in the following: Pinna, outer ear canal, eardrum, semicircular canals, cochlea, eustachean tube
- Distinguish between the outer, middle and inner ear
- Mark in where mucous and bacteria can develop and grow
- Mark in where pain develops as a result of infection



Q4. What is the eustachian tube and why is it important in snorkelling? (Page 25)

Q5. Describe the three common ear infections listed below and list one treatment for each (Page 25 and 26)

Q6. Define the term barotrauma (Page 26)

WORKSHEET 6: UNDERLYING HEALTH CONDITIONS

Q1. What are the hazards associated with diabetes and snorkelling? (Page 28)

Q2. Identify 4 common triggers for a asthma attack when snorkelling? (Page 28)

Q3. List 4 common personal medications and safety items that people carry with underlying health conditions carry (Page 28)

Q4. What is nervousness and how can it be reduced? (Page 29)

Q5. What is saltwater mist, what concerns does it raise for snorkellers and how can it be prevented? (Page 29)

Q6. What happens in your lungs when you drown? (Page 29)

Q7. List any two things you can do to avoid drowning while snorkelling (Page 29).

Q8. a. What is hyperventilation and b. why is it dangerous when snorkelling? (Page 30)

Q9. List three things a diver can do to prevent drowning from hyperventilation (Page 30)

Q10. Give two examples of stupidity and describe their consequences (Page 30)

Prepare a snorkelling weekend camp

Devise an itinerary for a weekend snorkelling camp, describing the equipment you would take and the emergency plan you would execute if need be.

SAMPLE PAGES

Lung capacity experiment

Assemble the apparatus as shown to the right and blow into the tube to determine your lung capacity.

Research questions

- What affects lung capacity in snorkellers?
- What is the average human lung capacity?

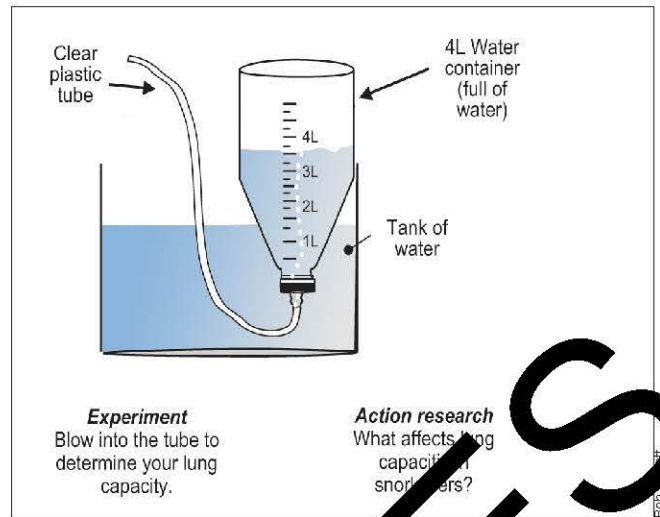
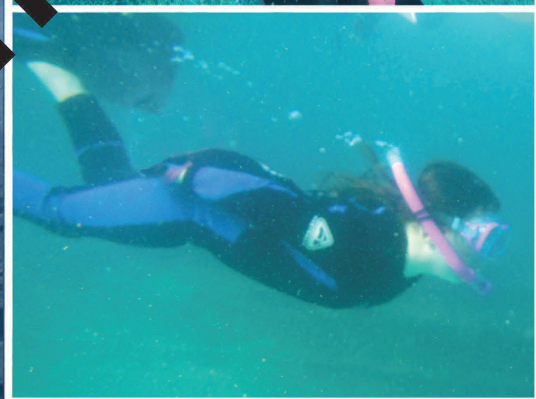
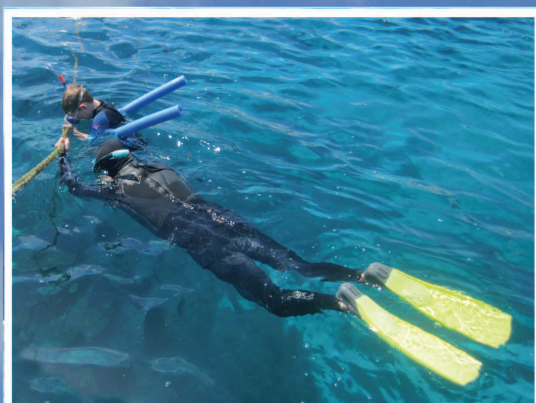


Figure 36.1 Lung capacity experiment demonstration



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