Government of **Western Australia**
Curriculum Council

WACE
Western Australian Certificate of Education

Western Australian Certificate of Education
Examination, 2010

Question/Answer Booklet

OUTDOOR EDUCATION

Stage 2

Please place your student identification label in this box

Student Number: In figures | | | | | | | | |

In words _____

_____

Time allowed for this paper
Reading time before commencing work: ten minutes
Working time for paper: three hours

Materials required/recommended for this paper
To be provided by the supervisor
This Question/Answer Booklet
Multiple-choice Answer Sheet
Map insert (inside the front cover of this Question/Answer Booklet)

To be provided by the candidate
Standard items: pens, pencils, eraser, correction fluid/tape, ruler, highlighters

Special items: navigational baseplate compass

Important note to candidates
No other items may be taken into the examination room. It is **your** responsibility to ensure that you do not have any unauthorised notes or other items of a non-personal nature in the examination room. If you have any unauthorised material with you, hand it to the supervisor **before** reading any further.

2010/32666

Ref: 10-101

Structure of this paper

Section	Number of questions available	Number of questions to be answered	Suggested working time (minutes)	Marks available	Percentage of exam
Section One: Multiple-choice	20	20	30	20	20
Section Two: Short answer	8	8	90	62	50
Section Three: Extended answer	3	2	60	40	30
				Total	100

Instructions to candidates

1. The rules for the conduct of Western Australian external examinations are detailed in the *Year 12 Information Handbook 2010*. Sitting this examination implies that you agree to abide by these rules.

2. Answer the questions according to the following instructions.

   Section One: Answer all questions on the separate Multiple-choice Answer Sheet provided. For each question shade the box to indicate your answer. Use only a blue or black pen to shade the boxes. If you make a mistake, place a cross through that square, do not erase or use correction fluid, and shade your new answer. Marks will not be deducted for incorrect answers. No marks will be given if more than one answer is completed for any question.

   Sections Two and Three: Write answers in this Question/Answer Booklet.

3. You must be careful to confine your responses to the specific questions asked and to follow any instructions that are specific to a particular question.

4. Spare pages are included at the end of this booklet. They can be used for planning your responses and/or as additional space if required to continue an answer.
   - Planning: If you use the spare pages for planning, indicate this clearly at the top of the page.
   - Continuing an answer: If you need to use the space to continue an answer, indicate in the original answer space where the answer is continued, i.e. give the page number. Fill in the number of the question(s) that you are continuing to answer at the top of the page.

See next page

Section One: Multiple-choice **20% (20 Marks)**

This section has **20** questions. Answer **all** questions on the separate Multiple-choice Answer Sheet provided. For each question shade the box to indicate your answer. Use only a blue or black pen to shade the boxes. If you make a mistake, place a cross through that square, do not erase or use correction fluid, and shade your new answer. Marks will not be deducted for incorrect answers. No marks will be given if more than one answer is completed for any question.

Suggested working time: 30 minutes.

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1. When selecting clothing for an expedition it is important to consider

   (a) comfort, practicality, brand.
   (b) colour, size, logos.
   (c) brand, cost, availability.
   (d) fabric, weight, durability.

2. A route plan, group goals, emergency procedures and equipment lists are all sections of an expedition

   (a) manual.
   (b) logbook.
   (c) planner.
   (d) journal.

3. Taking time to consider all options and then choosing the most appropriate solution describes which of the problem-solving methods below?

   (a) heuristics
   (b) step by step
   (c) insight
   (d) trial and error

4. Deliberately heading for a location on a linear feature close to the desired destination is called

   (a) back bearings.
   (b) triangulation.
   (c) aiming off.
   (d) handrails.

5. Which mechanism of heat loss is dominant when a body is immersed in cold water?

   (a) conduction
   (b) convection
   (c) radiation
   (d) evaporation

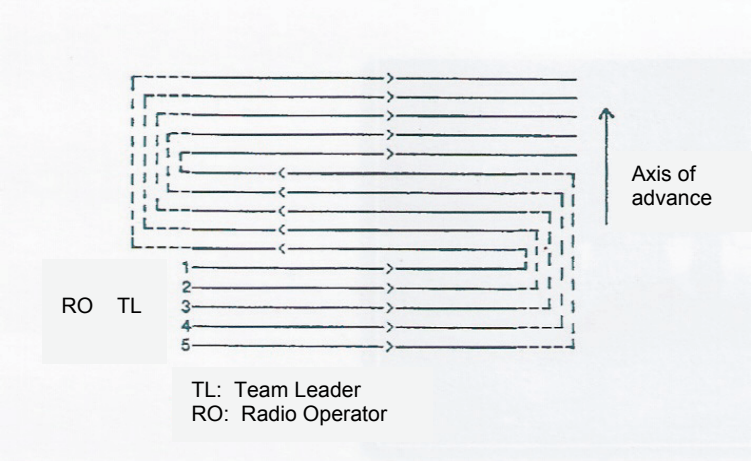
See next page

6. When completing a RAMS model of risk assessment for an activity, the causal factors that you should consider in relation to the activity include

   (a) time, first aid, environment.
   (b) industry standards, personality, environment.
   (c) people, norms, staff skills.
   (d) people, environment, equipment.

7. The diagram below represents which strategy for conducting a search and rescue?

   (a) reconnaissance search
   (b) creeping line search
   (c) general search
   (d) contour search



8. Effective interpersonal skills enable you to

   (a) solve problems efficiently and make informed decisions.
   (b) plan and prepare efficiently for an outdoor experience.
   (c) relate the outdoor activity to life and other social experiences.
   (d) provide clear and concise instructions about any predicted changes.

9. A strategy for building effective group relationships is to establish rules and expectations as this contributes to

   (a) motivating individuals to participate.
   (b) creating a positive atmosphere and group cohesion.
   (c) ensuring the safety of the group and meeting group objectives.
   (d) making certain everyone always listens to each other.

10. A people-oriented leader is more likely to

    (a) provide solutions to problems the group may have.
    (b) influence the members of the group to build strong bonds.
    (c) inspire the group to achieve the best possible results.
    (d) allow the group to resolve all conflicts themselves.

See next page

11. Which leadership style is most effective in reaching the objectives of the forming stage of group development?

    (a) selling
    (b) testing
    (c) consulting
    (d) telling

12. Which is the correct order for presenting the essential parts of a briefing session?

    (a) authority, individual goals, contract, framing the experience
    (b) contract, individual goals, authority, framing the experience
    (c) authority, framing the experience, contract, individual goals
    (d) contract, framing the experience, authority, individual goals

13. Self-appraisal of personal skills is very important in widening the open quadrant of the Johari window model. How can we use self-appraisal to move from the blind quadrant to the open arena?

    (a) Complete a personal rating scale and create a list of future improvements.
    (b) Observe and analyse a video of your personal skills performance.
    (c) Provide feedback to other group members in a debriefing session.
    (d) Discuss your self-appraisal findings with a peer and receive feedback.

14. Which activity could be used as a self-appraisal of interpersonal skills?

    (a) writing a reflection about your interactions with others
    (b) completing a peer skills questionnaire
    (c) analysing a video of your personal skills
    (d) observing and rating the group's strengths and weaknesses

15. Environmental characteristics that should be used when comparing ecosystems include

    (a) temperature, wind, wind direction and cloud cover.
    (b) rainfall, temperature, soil and vegetation.
    (c) soil, geography, river systems and population.
    (d) vegetation, biotic populations, human impact and fauna.

16. 'Sustainability' can be described as

    (a) the use and depletion of all available resources.
    (b) the maintenance of biological diversity and ecological functions.
    (c) the conservation of an available resource for future generations.
    (d) the maintenance of economic growth and ecological functions.

See next page

17. Which of the following statements best summarises the information conveyed by the isobars on a weather map?

    (a) Isobars are lines that link locations of similar weather. The distance the isobars are apart tells you how quickly the weather could change.
    (b) Isobars are lines that link locations of equal barometric air pressure. The distance the isobars are apart tells you how quickly the weather will change.
    (c) Isobars are lines that link locations of similar weather. The distance the isobars are apart tells you how hot or cold it will become.
    (d) Isobars are lines that link locations of equal barometric air pressure. The distance the isobars are apart tells you how strong the winds will be.

18. Which of the following best describes what happens during a cold front?

    (a) Warm air is forced up by approaching cold air, reducing air pressure, causing high cloud to form and rain to fall.
    (b) Cold air is forced up by approaching warm air, reducing air pressure, causing thunderstorms.
    (c) Warm air is forced up by approaching cold air, increasing air pressure, causing high cloud to form and rain to fall.
    (d) Cold air is forced up by approaching warm air, reducing air pressure, causing high cloud to form and rain to fall.

19. Die-back is a significant threat to Western Australia's biodiversity. What strategies can you employ as a bushwalker to help reduce the spread of die-back?

    (a) Cleaning your footwear when moving between sites and only walking on marked tracks.
    (b) Only using proper bushwalking boots and varying where you walk to lessen the risk of picking up the disease on your footwear.
    (c) Walking only on marked tracks and storing your bushwalking footwear separately from other shoes and boots.
    (d) Trying, wherever possible, to wash your footwear by walking through a creek, boggy or wet area during the day.

20. You have found some animal scats near a creek. These could provide you with information on

    (a) what the animal was, what it had been eating and which way it was headed.
    (b) how heavy the animal was, when it had last eaten, if it was nearby.
    (c) the animal's diet, the type of animal it was and an indication of its size.
    (d) if it had drunk at the creek, its last meal, and how recently it was there.

End of Section One

See next page

Section Two: Short answer **50% (62 Marks)**

This section has **eight (8)** questions. Answer **all** questions. Write your answers in the spaces provided in this Question/Answer Booklet. Use a blue or black pen (**not** pencil) for this section.

Spare pages are included at the end of this booklet. They can be used for planning your responses and/or as additional space if required to continue an answer.

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- Continuing an answer: If you need to use the space to continue an answer, indicate in the original answer space where the answer is continued, i.e. give the page number. Fill in the number of the question(s) that you are continuing to answer at the top of the page.

Suggested working time: 90 minutes.

Question 21 **(14 marks)**

(a) Name the **three (3)** causal factors that could contribute towards the development of a risk in an outdoor adventure activity. (3 marks)

One: _____

Two: _____

Three: _____

(b) Describe each of these causal factors, including an example. (3 marks)

One: _____

_____

_____

Two: _____

_____

_____

Three: _____

_____

_____

Management of risk includes the implementation of a risk management plan involving risk identification, risk assessment and risk reduction strategies.

(c) Identify and describe the **two (2)** critical aspects of risk that need to be considered in determining the level of risk associated with each hazard. (4 marks)

One: _____

_____

_____

_____

Two: _____

_____

_____

_____

Having determined the level of risk it is then necessary to determine what action is appropriate in relation to that risk.

(d) Describe **four (4)** actions that could be adopted in managing risk once the level of risk has been established. (4 marks)

One: _____

_____

Two: _____

_____

Three: _____

_____

Four: _____

_____

See next page

Question 22 **(8 marks)**

Identify and describe each of the **four (4)** steps required in an emergency response.

Step one: _____

Step two: _____

Step three: _____

Step four: _____

See next page

Question 23 **(5 marks)**

Using the map insert, complete all the questions below.

(a) What feature on the map could be used as a handrail while moving from the start to checkpoint 1? (1 mark)

(b) Record the compass bearing to travel in a straight line from checkpoint 4 to checkpoint 5. (1 mark)

(c) Record the compass bearing to travel in a straight line from checkpoint 6 to checkpoint 7. (1 mark)

(d) Calculate the distance travelled in a straight line between checkpoint 1 and checkpoint 2. Measure from the centre of the checkpoint circle 1 to the centre of the checkpoint circle 2. (1 mark)

(e) Calculate the height change from checkpoint 3 to checkpoint 4. Measure from the centre of the checkpoint circle 3 to the centre of the checkpoint circle 4. (1 mark)

Question 24 **(4 marks)**

Outline **two (2)** technological and **two (2)** non-technological methods of signalling in an emergency.

Technological methods of signalling (2 marks)

One: _____

Two: _____

Non-technological methods of signalling (2 marks)

One: _____

Two: _____

See next page

Question 25 **(5 marks)**

There are many reasons why a group may not function effectively together and progress through Tuckman's stages of group development. Read the examples of group issues given below and identify the stage from which the group is having difficulty advancing.

(a) Lack of concentration on the task can lead to the group becoming fearful of taking control and leaving the support of the leader; in this case the group will not progress

from the _____ stage of group development. (1 mark)

(b) If conflict is too strong and members do not want to speak or are fearful of speaking as they may feel devalued, the group will not progress

from the _____ stage of group development. (1 mark)

(c) While group members struggle to recognise what they have learnt and how they can transfer the learning into other situations outside the group, the group will not progress

from the _____ stage of group development. (1 mark)

(d) When group members are not able to make common connections about feelings of discomfort, doubts and concerns, the group will not progress

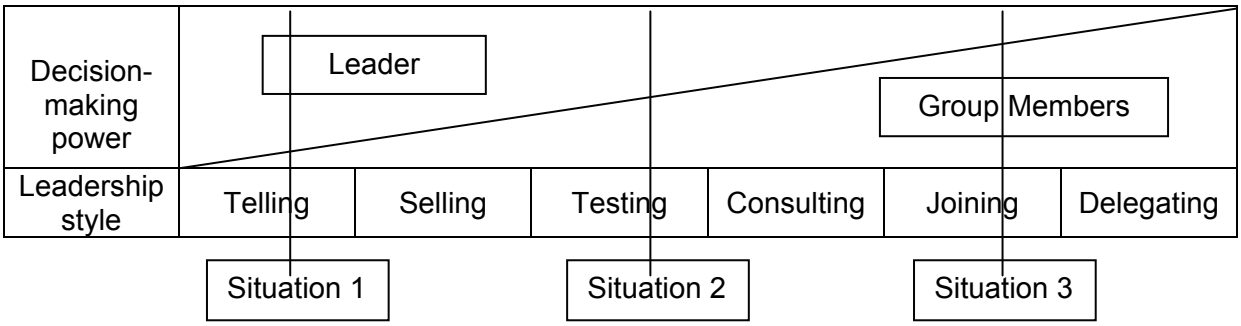
from the _____ stage of group development. (1 mark)

(e) As soon as group members do not respect the rules and are unmotivated to encourage more of a team effort, the group will not progress

from the _____ stage of group development. (1 mark)

See next page

Question 26 **(6 marks)**



Using the diagram above, describe the **three (3)** leadership styles indicated by situation 1 to situation 3. Describe one possible scenario for which each leadership style would be appropriate:

Leadership style situation 1: (1 mark)

Scenario one: (1 mark)

Leadership style situation 2: (1 mark)

Scenario two: (1 mark)

Leadership style situation 3: (1 mark)

Scenario three: (1 mark)

See next page

Question 27 **(6 marks)**

Clouds occur at different altitudes above the ground and are normally referred to as being 'upper', 'middle' and 'lower'-level. Different types of clouds give an indication of the weather that will be experienced on the ground. Knowing cloud types is therefore useful for outdoor people.

Name the **three (3)** cloud types present in the following photographs. For each type suggest what this cloud type indicates in terms of the expected weather.

Upper level clouds

Upper level clouds shown

_____(1 mark)

These clouds indicate _____

_____

_____

_____(1 mark)

Lower to middle level clouds

Lower to middle level clouds shown

_____(1 mark)

These clouds indicate _____

_____

_____

_____(1 mark)

Lower level clouds

Lower level clouds shown

_____(1 mark)

These clouds indicate _____

_____

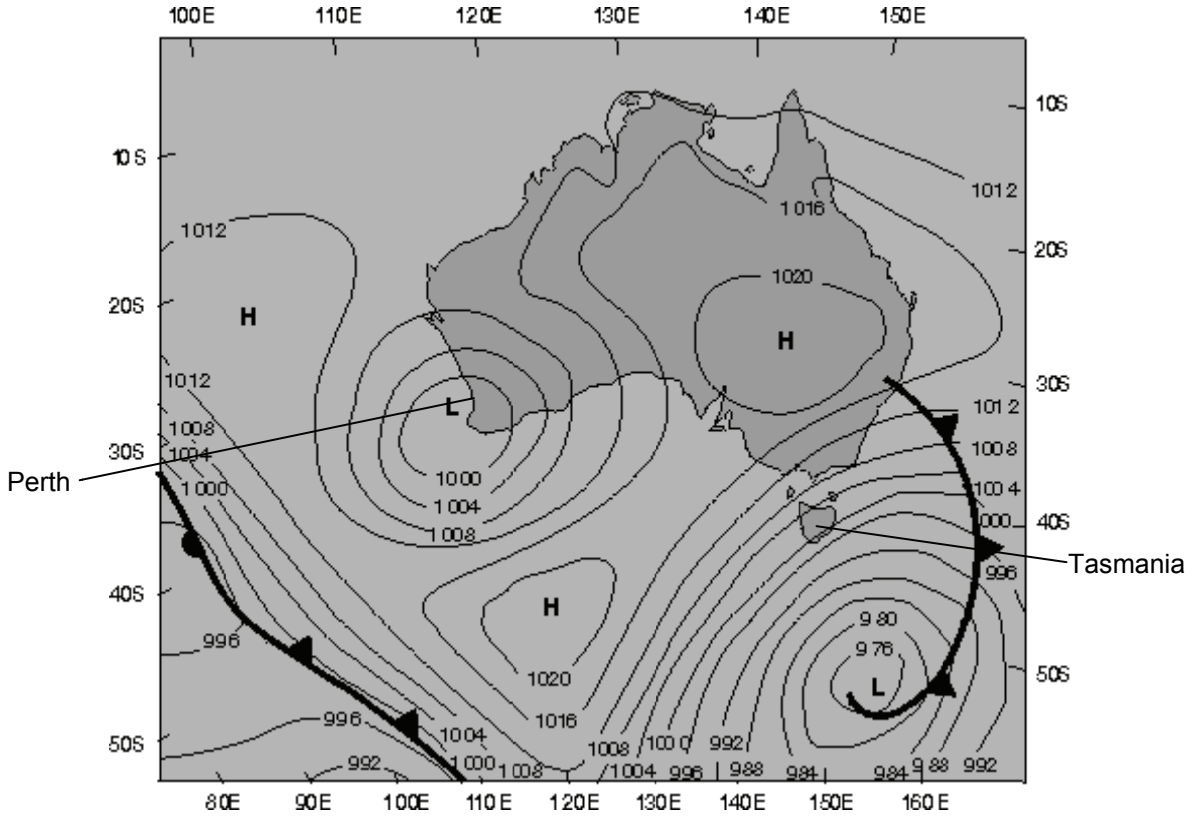
_____

_____(1 mark)

See next page

Question 28 **(14 marks)**

This question relates to the synoptic chart below.



(a) In what season would you normally expect to see a weather pattern similar to that depicted in the synoptic chart above? (1 mark)

_____

(b) What wind direction, wind strength, clouds and type of day would you expect to experience if you were in Perth on this day? (4 marks)

Wind direction	
Wind strength	
Cloud	
Weather conditions	

See next page

(c) What wind changes could be expected in Perth over the next 24 hours? (2 marks)

(d) What wind direction, wind strength, clouds and type of day would you expect to experience if you were in Tasmania? (4 marks)

Wind direction	
Wind strength	
Cloud	
Weather conditions	

(e) What wind and temperature changes could be expected in Tasmania over the next 24 hours? (3 marks)

End of Section Two

See next page

Section Three: Extended answer **30% (40 Marks)**

This section contains **three (3)** questions. You must answer **two (2)** questions. Write your answers in the spaces provided. Use blue or black pen for written answers and pencil for diagrams.

Answers may be presented in different ways provided they communicate your ideas effectively. You may choose to:

- present a clearly labelled diagram
- write notes beside a clear diagram
- write lists of points, with sentences to link them
- write concisely worded sentences
- use some other appropriate way to present your ideas.

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Suggested working time: 60 minutes

Question 29 – Outdoor experiences **(20 marks)**

Appropriate planning and preparation are factors that contribute to the successful completion of any expedition in a natural environment.

(a) Identify **five (5)** environmental factors that may influence the planning and/or preparation for an expedition. For each factor identified, describe how it might impact on an expedition. (10 marks)

See next page

(b) From an expedition in which you have participated this year:

(i) Identify and briefly describe the natural environment of your expedition. (2 marks)

(ii) Describe **three (3)** environmental factors that were considered in your planning and preparation. (3 marks)

See next page

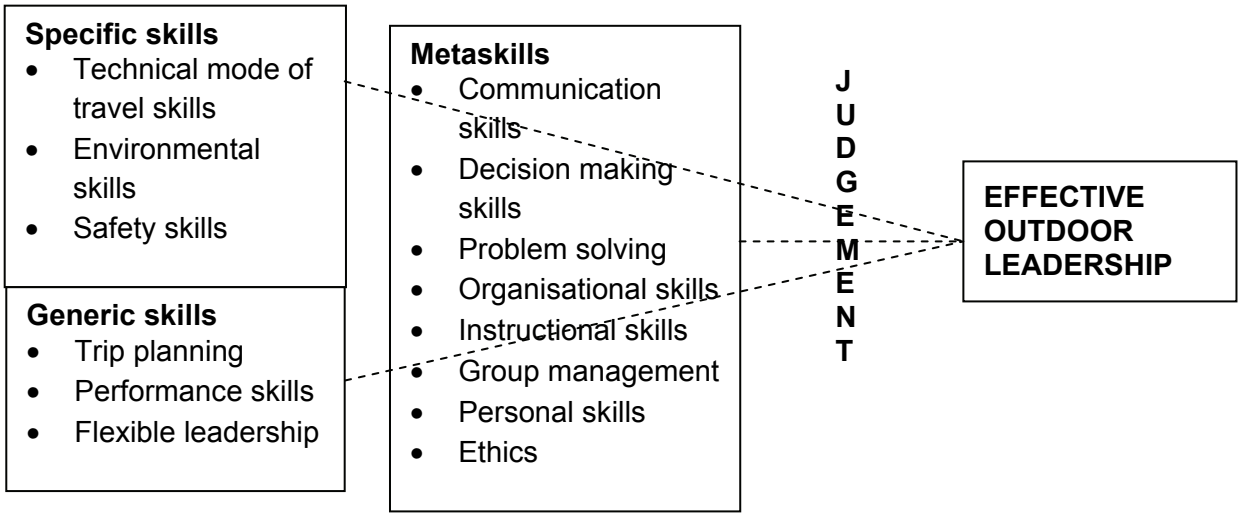
(iii) Explain **three (3)** strategies implemented for your expedition as a consequence of each of the environmental factors identified in part b (ii). (3 marks)

(iv) Give **one (1)** example of how actions were modified during your expedition in response to the actual environmental conditions encountered. Describe both the predicted and actual environmental conditions and the planned and modified response to the environment. (2 marks)

See next page

Question 30 – Self and others **(20 marks)**

The model below represents the process of effective outdoor leadership.



(a) Write your interpretation of outdoor leadership as represented in the model. (2 marks)

(b) With reference to the same diagram, describe **two (2)** leadership skills from each category. (6 marks)

See next page

(c) (i) Describe **three (3)** scenarios from your expedition this year in which the process of effective outdoor leadership was evident.
(ii) Identify the leadership skills that were demonstrated.
(iii) Describe how the leadership skills identified in each scenario followed the effective outdoor leader model.
(iv) Explain how the leadership demonstrated in each scenario proved to be effective and appropriate leading to correct judgements.

Scenario one: _____

_____

_____

_____

_____

_____

_____

_____ (4 marks)

Scenario two: _____

_____

_____

_____

_____

_____

_____

_____ (4 marks)

Scenario three: _____

_____

_____

_____

_____

_____

_____

_____ (4 marks)

See next page

Question 31 – Environmental awareness **(20 marks)**

Leave No Trace Australia proposes **seven (7)** principles that people should consider to minimise their impact on the environment during recreation outdoors.

(a) Select **four (4)** of the seven principles and describe a specific strategy/practice you implemented to support each principle and minimise your impact while on an expedition. (8 marks)

See next page

(b) Describe the effectiveness of the four strategies/practices outlined in part (a) in reducing the impact of your expedition on the local environment. (8 marks)

See next page

(c) Discuss how these strategies/practices raise issues or have implications for the natural environment more generally beyond the expedition setting. (4 marks)

End of questions

Spare answer page:

Question number: _____

Spare answer page:

Spare answer page:

Spare answer page:

ACKNOWLEDGEMENTS

Section One: Multiple-choice

Question 7 Image adapted from: Froude, C., Zaurs, J., Pocock, S., & Polley, S. (2008). *Outdoor Education: A Resource for Units 2A – 2B*. Cottesloe: Impact Publishing, p. 384.

Section Two: Short answer

Question 26 Diagram adapted from: Froude, C., Zaurs, J., Pocock, S., & Polley, S. (2008). *Outdoor Education: A Resource for Units 2A – 2B*. Cottesloe: Impact Publishing, p. 190.

Question 27 Photograph adapted from: Bureau of Meteorology. (n.d.). *Cirrus Cloud*. Retrieved August, 2010, from www.bom.gov.au/weather-services/about/cloud/cloud-types.shtml.

Photograph adapted from: UCAR. (n.d.). *Cumulonimbus Cloud*. Retrieved August, 2010, from http://t2.gstatic.com/images?q=tbn:b3sGXHU9AWYcfM:http://www.meted.ucar.edu/fire/s290/unit6/media/graphics/DI00104.jpg&t=1.

Photograph adapted from: Bureau of Meteorology. (n.d.). *Cumulus Cloud*. Retrieved August, 2010, from www.bom.gov.au/weather-services/about/cloud/cloud-types.shtml.

Question 28 Map adapted from: Bureau of Meteorology. (2010). *A summer weather map.* Retrieved August, 2010, from: http://reg.bom.gov.au/nmoc/MSL/WeatherMap.shtml#patterns.

Section Three: Extended answer

Question 30 Diagram from: Froude, C., Zaurs, J., Pocock, S., & Polley, S. (2008). *Outdoor Education: A Resource for Units 2A – 2B*. Cottesloe: Impact Publishing, p. 439.

Map insert Orienteering Western Australia. (2002). *North Ledge map* (Be Active 2008 WA school championships course 7). Subiaco: Orienteering Western Australia.

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