

TE PAEPAE O AOTEA MATHS BADGE: THE OUTDOORS

SECTION A		SECTION B	
Select and complete three out of the five in Section A		Select and complete three out of the six in Section B	
1	Pitch a 2 person tent and calculate the following: • The area of the floor • The angle of the pitch of the roof • The surface area of the roof and walls • The volume of air in the tent	1	Plan and map a cross-country course around your school environment. Produce a legend showing important features, measurement of distances and estimated times for students to complete the course. Make it interesting and use some of the play ground features around your school.
2	Design and make a brochure advertising an outdoor event, camp or sporting event. Include in your brochure: maps, timetables, cost of equipment or hire, etc.	2	Produce a design for a raft, which will be able to transport yourself and a friend. List the cost of all components required. Construct a model and test it's seaworthiness appropriately using equivalent and comparable weights.
3	Choose 5 sports that interest you. Design, draw and make a tangram (7 geometrical pieces) for each one, showing sports people in action.	3	Design an original game (one that you invent) that can be played outdoors. Use graphics, symbols and diagrams to produce a description of the game explaining the objectives, rules, scoring system, playing area and equipment.
4	Devise and draw a model of a 3D maze which can be constructed outdoors. Work out and record the actual dimensions.	4	Devise a menu for your class camp for 4 days. Work out the quantities of each type of food and establish the costs involved.
5	Brainstorm ideas for entertainment for a camp extending over four nights. Assess the popularity of these ideas and develop a programme for each night's entertainment. Get feedback from a teacher regarding the appropriateness of your programme. Publish a timetable for the programme.	5	Identify a suitable tabloid sporting event for your school. Develop a programme which includes: a) timetable of events b) draw or list of events c) map or diagram d) scoring system
		6	On grid paper, design a pattern for a T shirt for yourself. Create a decorative motif for the front of the shirt, that promotes conservation values in the outdoors. Use paper to produce models of the T shirt in three different sizes a) for yourself b) for a 3 year old c) for an adult Make sure that the design is correctly enlarged and reduced.

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