

2017 INFORMATION KIT
PART B: PUSHCARTS

RACV



ENERGY BREAKTHROUGH

23-26 NOVEMBER 2017 | MARYBOROUGH, VICTORIA

POWERED BY IMAGINATION

THE PREMIER SCIENCE, TECHNOLOGY, ENGINEERING AND MATHS, ACTIVE LEARNING PROGRAM

A PARTNERSHIP BETWEEN



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Dear Pushcart Entrants,

Please find enclosed the Information for this year's Pushcart Event at the RACV Energy Breakthrough.

It contains information relating to:

- The requirements in each section of the event.
- Scrutineering Checklist
- Timetables for each event.

We encourage you to carefully read through this Information Kit so that you and all the members of your team are fully aware of what is required. This includes parents and supporters of your team.

Please note the changes to the Endurance section and the requirement for your student Team manager to hand your completed Scrutineering Checklist to the Pushcart Scrutineers at the event.

More Information:

If you require further information on the event please contact the RACV Energy Breakthrough on 54610 621 or breakthrough@cgoldshire.vic.gov.au

Look forward to seeing you in Maryborough.

Yours sincerely,

John Stafford
RACV Energy Breakthrough

IMPORTANT NOTICES

There are a number of issues that we would like to bring to your attention in relation to the Pushcart Event for 2017.

1. Safety Requirements:

It is important that before arriving in Maryborough that teams take all steps to ensure that both the pushcart and team members are safe to compete in all components of the event.

Teams are also encouraged to ensure that their vehicle fulfils all specifications thus ensuring the safety of other teams.

Please check through all the areas outlined in the Scrutineering checklist and ensure that they are accommodated before arriving in Maryborough. This year Student Team Managers are required to complete the Scrutineering Checklist prior to their scheduled Design & Construction time and present to Pushcart Scrutineers at the event.

2. Safety of Vehicle

Safety throughout the event is of high importance and as a result teams are expected to ensure that the vehicle and riders are safe, and have the required safety requirements (as detailed within the information in the website) at all times throughout the event.

Could we please ask that all teams ensure that their vehicle fulfills all safety requirements including sharp edges, drive safety, padding, and the like prior to coming to Maryborough.

3. Support Crew and Supporters:

We encourage all parties to support their teams. To ensure the highest level of safety; allowing judges to assess fairly; and providing all team members with an opportunity to participate on an equal basis, the following guidelines will exist for Support Crew and Supporters:

- entering onto to the race track while the Endurance, Sprint and Obstacle events are in progress is prohibited.
- running alongside, or pacing, the pushcart in events is prohibited.
- only team members are allowed in the Marquee while presenting to judges. (spectators will be able to view the presentations from outside the Marquee)
- assisting the team while they are presenting to judges or participating in track events is prohibited.

4. Assistance During Events:

If assistance is required during any event, marshals or judges will be available to assist team members where required. Judges/Marshals will be at each changeover point within the "Track Events" to assist team members if required.

Parents, teachers and other support crew are asked not to enter onto the track until invited to by the judges or marshals.

5. Teams

Teams will comprise of a minimum of eight members and a maximum of 10 members.

Please check out the information contained on the website for more information.

The requirement of having at least 50% females within a team stands regardless of the team size

6. Track events

- A Sprint relay, Obstacle and an Endurance Relay will test all aspects of vehicle design, construction and reliability as well as student fitness and teamwork.
- All teams must participant in all three elements.
- Points will be allocated on the basis of time for all events.
- Power for the vehicle must come solely from the single team member who is pushing the pushcart.
- The pusher may ride on the back of the cart while scooting along.
- Ultimate success on the track will depend as much upon fitness and teamwork as on the design of the vehicle.

Sprint relay:

The sprint relay will be conducted over a 50 metre straight track with eight team members having a turn of pushing and driving.

Points Allocation for the Sprint Relay:

- Points will be allocated on the total team time recorded.
That is: 15 points to the team recording the fastest time.

$$\text{Time Trial Score} = 15 - \left[\left(\frac{X - Y}{Y} \right) \times 15 \right]$$

- Where Y = fastest team time recorded & X = team's own time

Obstacle course:

Four team members will be required negotiate an Obstacle Course on both sealed and grassed surfaces.

Points Allocation for Obstacle Course

$$\text{Obstacle Course Score} = 10 - \left[\left(\frac{X - Y}{Y} \right) \times 10 \right] - \text{Penalty}$$

- Where Y = fastest team time recorded (in seconds) & X = teams own time (in seconds).

Obstacle Rally – Penalties & Infringements:

Infringement	Penalty Points
Contact with hay bale or barrier, loose seat belt and/or helmet,	0.2
Careless driving, contact with other vehicle, no seat belt, no helmet, incorrect pit change over	0.5
Very dangerous driving	1

Endurance Relay:

- This relay will be conducted on the Holden track with eight team members each having a turn of pushing and driving.
- Each person will be required to push for approximately 150 metres, then drive for approximately 150 metres before change-over.
- The endurance will be run in a *time trial format*, that is, each team starting with a 20-30 second gap.
- Changeover points will be handed out at the Briefing Meeting on Friday morning.

Points Allocation - Endurance Trial:

- Points will be allocated on time taken to complete the trial by the team. That is, 15 points to the team recording the fastest time.
- Other finishers: (X/Y) multiplied by 15 = points
- Where Y = highest number of laps recorded & X = team's number of laps.

7. Compulsory Meeting:

A compulsory meeting for one adult and the team captain will be held on **Friday 24th November at 7.30am sharp** at the Stage situated on the front straight of the CFA Track.

PUSHCARTS

WEDNESDAY 22 NOVEMBER

4.00 pm – 5.00pm Registration open

Location: Administration Centre

THURSDAY 23 NOVEMBER

All Day: Teams arrive and set up camp

9.00 am Registration opens

Location: Administration Centre

1.00 pm – 6.00 pm Design and Construction & Scrutineering

Location: Presentation Marquees

FRIDAY 24 NOVEMBER

7.30 am Compulsory Meeting of Team Manager and Captain

Location: Holden Stage, Holden Track

8.30 am – 10.30 am Endurance Event

Location: Holden Track

12.30 pm – 6.00 pm Display and Presentation

Location: Presentation Marquees

12.30 pm – 6.00 pm Obstacle Course

Location: Near Pushcart Marquees

SATURDAY 25 NOVEMBER

9.00 am Obstacle Course (continued)

Location: Near Pushcart Marquees

10.30 am – 12noon Sprint Event

Location: RACV Track

3.30 pm Presentation Ceremony (Primary)

Location: Stage in Energy Expo area

SUNDAY 26 NOVEMBER

No activities

*** PLEASE NOTE THAT THIS TIMETABLE IS SUBJECT TO AMENDMENTS.**

PUSHCART EVENTS

- 1. Design and Construction**
- 2. Display and Presentation**
- 3. Track Events**

DESIGN AND CONSTRUCTION

Dismantle and Construction.

Venue: The Pushcart Marquee within the “Expo Area”.

Times: Thursday between 1.00pm and 6.00pm

- Teams have been allocated times – these are outlined at the back of this Information Kit.
- Teams are asked to report to the Pushcart Officials approximately 10 minutes prior to their allocated time.

After being allocated a construction space, teams dismantle the pushcart **PRIOR** to presenting to judges.

Teams must make sure that their pushcart can fit within a box 10cm deep in its dismantled state.

What is Required of Teams:

Once judges arrive, the team of eight to ten need to demonstrate that they can rebuild the vehicle within thirty minutes.

The key elements in this area include:

- Use of Technology
- Design of Pushcart
- Use of Recycled materials
- Support of other people in design and construction
- Construction of pushcart
- Innovation in Design

After rebuilding the pushcart, the team will be engaged in a discussion about the student’s knowledge and understanding of their pushcart.

Points Allocated:

A possible 30% of the total points will be allocated to this area.

SCRUTINEERING

Venue: The Pushcart Marquee.

Times: Thursday, from 1.00pm to 6.00pm.

Scrutineering Schedule:

The Scrutineering will be completed in the same location immediately following the team Design & Construction assessment.

Therefore all team members should participate and they will need to have their safety gear with them as outlined in the Energy Breakthrough website.

PLEASE NOTE: *Teams must register at the Administration Centre prior to Design & Construction and scrutineering.*

It is the responsibility of supervising staff to ensure that the vehicle meets **ALL** the specifications and safety requirements. Please check against information contained on the RACV Energy Breakthrough website.

This year Student Team Managers are required to complete the Scrutineering Checklist prior to their scheduled Design & Construction time and present to Pushcart Scrutineers at the event.

Those teams who don't fulfill the requirements will need to rectify the areas identified prior to competing in any of the events.

SCRUTINEERING CHECKLIST

School Name: _____

Team Number: _____

AREA	YES N/A	NO	Comments
1. Design includes: a. four wheels, roll / push bar, front steering. b. No car or bike parts except seat belts. c. Lock nuts / split pins / washers on moving parts especially axles to avoid movement.			
2. Front protection: a. Min 40 mm foam padding on front of pushcart			
3. Brake operation: a. Is effective and has definite off position b. Operates on at least one rear wheel c. Brake operated by driver.			
4. Wheel size (inc. tyres) less than 251 mm in diameter			
5. Front wheels not touching any other part of the cart at full left or right steering lock			
6. Steering by the driver, not the pusher.			
7. If Rope steering: the rope must have at least 300mm of plastic tube or other reinforcing material on both sides closest to the connected point of wheels.			
8. No protruding bolts or jagged edges a. design is free of protrusions or other features capable of causing interference or injury to fellow competitors or spectators.			
9. Driver protection: Roll/push bar (roll bar must be at least 100mm above the tallest team members when sitting in seat.			
10. Seatbelt - Type a. an approved (Australian Design Rules) adult three point (minimum) automotive static or inertia reel seat belt. b. Automotive full harness types are acceptable.			

c. The seat belt will be completely standard, inc. buckle, stitching and mounting plates. d. Seat belts must be adjustable to fit all individual team members.			
11. Seatbelt – Mounting a. mounted to a major structural, non-moving member of the pushcart. b. Upper belts mounted behind the rider's shoulders, to suitably braced points on the roll bar.			
12. Rear step stability <i>If a rear step is installed to enable the pusher to scoot the vehicle, the cart must be stable while the heaviest pusher is standing on the step and the lightest driver is sitting in the pushcart.</i>			
13. Two identification panels each 200 mm x 200 mm: a. One on front b. One on left side of pushcart c. must not constitute a danger to pusher or driver.			
14. Safety Gear a. Each member of the team must have: b. knee pads c. elbow pads, d. an approved bicycle helmet, and e. protective gloves.			

Additional Comments / Actions Required

Note: Please copy this Scrutineering Checklist, have your student team manager complete the checklist and then hand the completed form to the Pushcart Scrutineers.

DISPLAY AND PRESENTATION

Venue: The Pushcart Marquee.

Times: Each team has been allocated a time on [Friday between 12.30pm and 6.00pm](#)

- Times are outlined in detail at the back of this Booklet.
- Teams are asked to report to the Pushcart Officials approximately 15 minutes prior to their scheduled time.

What is Required of Teams:

- Each team will be required to provide a presentation of at least 20 minutes to judges, followed by question time.
- A display surface and access to power will be available.
- The display can take the form of your choice but must fit within a display area of 2 metres X 2 metres X 2 metres. The use of videos, tapes, etc. is permissible on the basis that teams provide their own equipment.
- A maximum of ten team members can participate in the presentation.

Teams are to ensure that their display and presentations occur within the required display area, size and time allowance.

The key elements in this area include:

- Team work
- Planning and Building process
- Student learning
- The presentation
- Links with school curriculum.

Points Allocation:

A possible 30% of the total points will be allocated to this area.

TRACK EVENTS

Within the Track Events each team will be required to participate in the “Obstacle Event”, “Endurance Event” and “Sprint Event.”

(a) Obstacle event

Venue: Adjacent to the Pushcart Marquee.

Times: **Friday between 12.30pm and 6.00pm**

&

Saturday between 9.00am and 10.30am

- Teams have been allocated times – these are detailed at the back of this Booklet.
- Teams are asked to report to the Pushcart Officials approximately 5 minutes prior to their time.

What is Required of Teams:

The Obstacle Course will comprise:

- a course with a number of obstacles located on both grass and asphalt.
- four nominated team members comprising at least two females will be required to complete the course.
- each pair will be required to negotiate two circuits of the course with pusher and driver changing positions at the end of the first lap.
- On the first pairs completion of their two laps, the second pair will be required to complete two circuits of the course.

Teams will have the opportunity to look over the course prior to the “Official Trial”.

Points Allocation:

- A possible 10% of the total points will be available.
- Points will be allocated according to the time required to complete the course.
- A penalty of 5 seconds will be incurred for each obstacle not successfully negotiated. This includes moving a cone, leaving the changeover area before safe to do so or missing an obstacle.

(b) Endurance Event:

Venue: CFA Track

Time: Friday between **8.30am and 10.30am**

The event will follow a Time Trial approach. Pushcarts will leave the start line in 30 second intervals. There will be no heats this year.

The Endurance event will take place on a circular street track – a section of the CFA track.

Each team member will be required to push approximately 200 metres and drive 200 metres.

What is Required of Teams:

- The Endurance event will require the teams of eight to split into pairs (with at least one in each pair being a girl).
- Each member of the team must have a turn of pushing and steering during the event.
- Pairs “1” will start the event with pairs “2”, “3”, and “4” being allocated changeover points around the **CFA Track**. Maps of changeover points will be provided at the Briefing Meeting on Friday morning.
- Each pair is required to:
 - take the pushcart from their starting point to a changeover point – approximately 200 metres.
 - At this point team members swap positions (ie the driver becomes the pusher and vice versa) and take the pushcart to the next changeover point.
 - Hand the pushcart over to the next pair who will follow the same format.
 - This process will occur for all pairs.
 - Pairs will changeover at designated locations around the **CFA Track**
- Each team will complete a **total of two laps of an amended circuit** After travelling down the front straight, Pushcart teams will turn left after Marshal Point 1 rather than turn right. The will re-join the circuit between Marshal Points 4 and 5.
- Penalties are allocated for breach of safety requirements, non team members on the track or pacing, leaving changeover points before safe to do so, and unsafe driving.

Points Allocation

- Teams will be allocated points on the basis of time recorded in their heats, taking into account any penalties accrued.
- A possible 15% of total points will be allocated to this area.

(c) ***Sprint Event:***

Venue: RACV Track

Time: 10.30am on Saturday.

Teams have been allocated heats – these are detailed at the back of this Information Kit

What is Required of Teams:

- The Sprint Event will require teams of eight to split into pairs (with at least one in each pair being a female).
- Each pair is required to complete the following:
 - take the pushcart approximately 50 metres to a “bay”:
 - stop in the “bay” - swap positions: turn the pushcart around (or vice versa)
 - take pushcart back to the starting “bay” for the next pair to take over.
- Each of the four pairs is required to have a turn.
- Teams must not leave the “bays” until the seat belt is secured.
- Penalties will be incurred if the team goes outside designated changeover “bays”, leaves the bay without securing seat belts or veers into another team’s lane on the course.

Points Allocation:

- Teams will be allocated points on the basis of time recorded in their heats, taking into account any penalties accrued.
- A possible 15% of the total points will be allocated to this area.

TEAMS AND TIMETABLES

No.	Team Name	School	Class
1	Fast n Furious	Allansford and District PS	A1
2	Super Charged	Allansford and District PS	A1
3	Pyrenees Evolution	Avoca Primary School	A1
4	Team 4	Ballarat Christian College	A1
5	Candlebark	Candlebark	A1
6	Eppalock PS Stormers	Eppalock PS	A1
7	Team 1	Great Western Primary School	A1
8	Kerang Central Karters	Kerang Primary School	A1
9	Team 1	Lockington Consolidated	A1
11	O1	Ouyen P12 College	A1
12	O2	Ouyen P12 College	A1
13	Sebastopol Spinners	Sebastopol Primary School	A1
14	Rochy Rockets	St Joseph\'s Primary School	A1
15	Swift Saints	St Josephs PS Red Cliffs	A1
16	Team 1	St Mary's Warracknabeal	A1
17	Team 1	Stawell West Primary School	A1
18	Team 2	Stawell West Primary School	A1
19	Road Runners	Beaconsfield Upper PS	A2
20	Pushcarts 2	Beaconsfield Upper PS	A2
21	Team 1	Bonbeach Primary School	A2
22	The Mighty Blues	Eaglehawk North PS	A2
23	Epping Warriors H	Epping Primary School	A2
24	Epping Warriors G	Epping Primary School	A2
25	Epsom Primary Grade 5	Epsom Primary school	A2
26	Epsom Primary Grade 6	Epsom Primary school	A2
27	Lightning	Jells Park Primary School	A2
28	Thunder	Jells Park Primary School	A2
29	Vortex	Jells Park Primary School	A2
30	Kingsley Dingoes	Kingsley Park Primary School	A2
31	Team Zero	Lloyd Street Primary School	A2
32	Pushy Planet Protectors	Lloyd Street Primary School	A2
33	Lucknow Lightning	Lucknow Primary School	A2
34	Lightning MECQueen	Maryborough Education Centre	A2
35	Cruz RaMECrez	Maryborough Education Centre	A2
36	Team 3	Maryborough Education Centre	A2
37	Moama Wild Tigerz	Moama Public School	A2
38	Dashing Demons	Mornington Primary School	A2

No.	Team Name	School	Class
39	Blue Lightning	Mornington Primary School	A2
40	Neil Cartstrong	Mt Eliza Primary School	A2
41	The Milky Runners	Mt Eliza Primary School	A2
42	Star Bursts	Mt Eliza Primary School	A2
44	Sharks	Overport Primary School	A2
45	Rangebank Rockets	Rangebank Primary School	A2
46	Rangebank Allstars	Rangebank Primary School	A2
47	Rowellyn Road Runners	Rowellyn Park Primary School	A2
48	Rowellyn Racing Rebels	Rowellyn Park Primary School	A2
49	St Catherine's Pushcart Superstars	St Catherines Primary School	A2
50	Team 2	St Michael and John\'s PS	A2
51	Team 3	St Michael and John\'s PS	A2
52	Cool Runnings Jnr	St Patrick's Primary School	A2
53	St T's Turbos	St Therese's Primary School	A2
54	Take Up and Run	St. Augustine's Primary School	A2
55	sCool Runnings	St. Augustine's Primary School	A2
56	Shooting STARS	St. Augustine's Primary School	A2
57	Hands Off	Strathfieldsaye Primary School	A2
58	Rainbow Rocket	Strathfieldsaye Primary School	A2
59	Mozzie Bites	Tooradin Primary School	A2
60	Yarra Yellowbellies	Yarrawonga College P-12	A2
61	Yarra Yabbies	Yarrawonga College P-12	A2

TIMETABLES

1. Design and Construction & Scrutineering:

Thursday 1.00pm – 6.00pm

<i>Time</i>	<i>Panel</i>	<i>No</i>	<i>Team</i>	<i>Panel</i>	<i>No</i>	<i>Team</i>
1.00 pm	20A	22	Eaglehawk North PS	23A	1	Allansford and District PS
	21A	54	St. Augustine's PS	24A	29	Jells Park Primary School
	22A	3	Avoca Primary School	25A	45	Rangebank Primary School
1.30 pm	20B	30	Kingsley Park Primary School	23B	49	St Catherines Primary School
	21B	37	Moama Public School	24B	55	St. Augustine's Primary School
	22B	41	Mt Eliza Primary School	25B	2	Allansford and District PS
2.00 pm	20A	26	Epsom Primary School	23A	8	Kerang Primary School
	21A	32	Lloyd Street Primary School	24A	7	Great Western Primary School
	22A	39	Mornington Primary School	25A	14	St Joseph's Primary School
2.30 pm	20B	31	Lloyd Street Primary School	23B	20	Beaconsfield Upper PS
	21B	57	Strathfieldsaye Primary School	24B	9	Lockington Consolidated School
	22B	47	Rowellyn Park Primary School	25B	6	Eppalock PS
3.00 pm	20A	35	Maryborough Education Centre	23A	33	Lucknow Primary School
	21A	5	Candlebark	24A	38	Mornington Primary School
	22A	24	Epping Primary School	25A	42	Mt Eliza Primary School
4.00 pm	20B	15	St Josephs PS Red Cliffs	23B	50	St Michael and John's PS
	21B	21	Bonbeach Primary School	24B	11	Ouyen P12 College
	22B	27	Jells Park Primary School	25B	40	Mt Eliza Primary School
4.30 pm	20A			23A	46	Rangebank Primary School
	21A	12	Ouyen P12 College	24A	36	Maryborough Education Centre
	22A	19	Beaconsfield Upper Primary School	25A	48	Rowellyn Park Primary School
5.00 pm	20B	23	Epping Primary School	23B		
	21B	28	Jells Park Primary School	24B	16	St Mary's Warracknabeal
	22B	34	Maryborough Education Centre	25B	51	St Michael and John's PS
5.30 pm	20A	44	Overport Primary School	23A	25	Epsom Primary School
	21A	52	St Patrick's Primary School	24A	53	St Therese's Primary School
	22A	57	Strathfieldsaye Primary School	25A	60	Yarrowonga College P-12
6.00 pm	20B	61	Yarrowonga College P-12	23B	56	St. Augustine's Primary School
	21B	4	Ballarat Christian College	24B		
	22B	58	Strathfieldsaye Primary School	25B		

2. Endurance Event : (Friday - 8.30am)

HEAT 1 - Teams to Report to marshalling area by 8.00 am			
12	Ouyen P12 College	27	Jells Park Primary School
24	Epping Primary School	11	Ouyen P12 College
29	Jells Park Primary School	35	Maryborough Education Centre
51	St Michael and John's PS	30	Kingsley Park Primary School
4	Ballarat Christian College	38	Mornington Primary School
37	Moama Public School	34	Maryborough Education Centre
54	St. Augustine's Primary School	43	New Gisborne Primary
42	Mt Eliza Primary School	9	Lockington Consolidated School
31	Lloyd Street Primary School	55	St. Augustine's Primary School
60	Yarrawonga College P-12		
HEAT 2 - Teams to Report to marshalling by 8.30 am			
46	Rangebank Primary School	39	Mornington Primary School
40	Mt Eliza Primary School	33	Lucknow Primary School
2	Allansford and District PS	48	Rowellyn Park Primary School
10	Natte/Amphi Primary Schools	20	Beaconsfield Upper Primary School
52	St Patrick's Primary School	7	Great Western Primary School
14	St Joseph's Primary School	22	Eaglehawk North Primary School
28	Jells Park Primary School	36	Maryborough Education Centre
44	Overport Primary School	1	Allansford and District PS
16	St Mary's Warracknabeal	6	Eppalock PS
56	St. Augustine's Primary School	58	Strathfieldsaye Primary School
59	Tooradin Primary School	61	Yarrawonga College P-12
HEAT 3 - Teams to Report to marshalling area by 9.00 am			
5	Candlebark	3	Avoca Primary School
50	St Michael and John's PS	8	Kerang Primary School
21	Bonbeach Primary School	15	St Josephs PS Red Cliffs
41	Mt Eliza Primary School	17	Stawell West Primary School
26	Epsom Primary School	19	Beaconsfield Upper PS
13	Sebastopol Primary School	23	Epping Primary School
49	St Catherine's Primary School	25	Epsom Primary School
32	Lloyd Street Primary School	45	Rangebank Primary School
47	Rowellyn Park Primary School	53	St Therese's Primary School
57	Strathfieldsaye Primary School	18	Stawell West Primary School

3. Display and Presentation (Friday – 12.30pm – 6.00pm)

<i>Time</i>	<i>Panel</i>	<i>No.</i>		<i>Panel</i>	<i>No</i>	<i>Team</i>
12.30 pm	20A	11	Ouyen P12 College	24A	17	Stawell West Primary School
	21A	13	Sebastopol Primary School	25A	20	Beaconsfield Upper PS
	22A	15	St Joseph's PS Red Cliffs	26A	34	Maryborough EC
	23A	16	St Mary's Warracknabeal	27A	24	Epping Primary School
1.00 pm	20B	12	Ouyen P12 College	24B	18	Stawell West Primary School
	21B	14	St Joseph's Primary School	25B	21	Bonbeach Primary School
	22B	19	Beaconsfield Upper PS	26B	33	Lucknow Primary School
	23B	23	Epping Primary School	27B	26	Epsom Primary School
2.00 pm	20A	27	Jells Park Primary School	24A	28	Jells Park Primary School
	21A	30	Kingsley Park PS	25A	25	Epsom Primary School
	22A	22	Eaglehawk North PS	26A	35	Maryborough EC
	23A	36	Maryborough EC	27A	31	Lloyd Street Primary School
2.30 pm	20B	29	Jells Park Primary School	24B	37	Moama Public School
	21B	38	Mornington Primary School	25B	41	Mt Eliza Primary School
	22B			26B	50	St Michael and John's PS
	23B	9	Lockington Consolidated	27B	48	Rowellyn Park PS
3.00 pm	20A	32	Lloyd Street Primary School	24A	49	St Catherine's PS
	21A	39	Mornington Primary School	25A	2	Allansford and District PS
	22A	42	Mt Eliza Primary School	26A	53	St Therese's Primary School
	23A	44	Overport Primary School	27A	54	St. Augustine's PS
4.00 pm	20B	45	Rangebank Primary School	24B	55	St. Augustine's PS
	21B	47	Rowellyn Park PS	25B	6	Eppalock PS
	22B	5	Candlebark	26B	40	Mt Eliza Primary School
	23B	51	St Michael and John's PS	27B	1	Allansford and District PS
4.30 pm	20A			24A	46	Rangebank Primary School
	21A	57	Strathfieldsaye PS	25A	56	St. Augustine's PS
	22A	4	Ballarat Christian College	26A	8	Kerang Primary School
	23A	61	Yarrowonga College P-12	27A	3	Avoca Primary School
5.00pm	20B	52	St Patrick's Primary School	24B	7	Great Western PS
	21B	58	Strathfieldsaye PS	25B		
	22B	59	Tooradin Primary School	26B		
	23B	60	Yarrowonga College P-12	27B		

4. Obstacle Course (Friday – 12.30pm)

Time	No	Team	No	Team
12.30 pm	60	Yarrowonga College P-12	52	St Patrick's Primary School
	44	Overport Primary School	48	Rowellyn Park Primary School
	49	St Catherines Primary School	50	St Michael and John's PS
	51	St Michael and John's PS	9	Lockington Consolidated
	56	St. Augustine's PS		
1.15 pm	45	Rangebank Primary School	47	Rowellyn Park Primary School
	46	Rangebank Primary School	2	Allansford and District PS
	1	Allansford and District PS	4	Ballarat Christian College
	53	St Therese's Primary School	54	St. Augustine's Primary School
	58	Strathfieldsaye Primary School		
2.00 pm	3	Avoca Primary School	6	Eppalock PS
	5	Candlebark	7	Great Western Primary School
	59	Tooradin Primary School	8	Kerang Primary School
	55	St. Augustine's PS	57	Strathfieldsaye Primary School
	61	Yarrowonga College P-12		
2.45 pm	11	Ouyen P12 College	19	Beaconsfield Upper PS
	13	Sebastopol Primary School	12	Ouyen P12 College
	17	Stawell West Primary School	15	St Joseph's PS Red Cliffs
	20	Beaconsfield Upper PS	23	Epping Primary School
3.30 pm	14	St Joseph's Primary School	16	St Mary's Warracknabeal
	21	Bonbeach Primary School	18	Stawell West Primary School
	24	Epping Primary School	22	Eaglehawk North PS
	25	Epsom Primary School	42	Mt Eliza Primary School
4.15 pm	31	Lloyd Street Primary School	33	Lucknow Primary School
	26	Epsom Primary School	29	Jells Park Primary School
	28	Jells Park Primary School	41	Mt Eliza Primary School
	34	Maryborough EC	37	Moama Public School
5.00 pm	36	Maryborough EC	35	Maryborough EC
	38	Mornington Primary School	40	Mt Eliza Primary School
	32	Lloyd Street Primary School	30	Kingsley Park Primary School
	39	Mornington Primary School	27	Jells Park Primary School

5. Sprint Event: (Saturday - 10.30am)

Teams in Heat 1 - 11 report to marshalling area at 10.00am.

Teams in Heats 10 - 16 report to marshalling area at 10.45 am

Heat	No	Team	Heat	No	Team
1	1	Allansford and District PS	10	31	Lloyd Street Primary School
	4	Ballarat Christian College		35	Maryborough EC
	7	Great Western PS		39	Mornington Primary School
	16	St Mary's Warracknabeal		59	Tooradin Primary School
2	2	Allansford and District PS	11	32	Lloyd Street Primary School
	5	Candlebark		36	Maryborough EC
	8	Kerang Primary School		40	Mt Eliza Primary School
	11	Ouyen P12 College		44	Overport Primary School
3	3	Avoca Primary School	12	45	Rangebank Primary School
	6	Eppalock PS		50	St Michael and John's PS
	9	Lockington Consolidated		55	St. Augustine's PS
	12	Ouyen P12 College		60	Yarrawonga College P-12
4	13	Sebastopol Primary School	13	46	Rangebank Primary School
	17	Stawell West Primary School		51	St Michael and John's PS
	21	Bonbeach Primary School		56	St. Augustine's PS
	25	Epsom Primary School		61	Yarrawonga College P-12
5	14	St Joseph's Primary School	14	47	Rowellyn Park Primary School
	18	Stawell West Primary School		52	St Patrick's Primary School
	22	Eaglehawk North PS		57	Strathfieldsaye PS
	26	Epsom Primary School		49	St Catherines Primary School
6	15	St Joseph's PS Red Cliffs	15	48	Rowellyn Park PS
	19	Beaconsfield Upper PS		53	St Therese's Primary School
	23	Epping Primary School		58	Strathfieldsaye PS
	27	Jells Park Primary School			
7	54	St. Augustine's Primary School			
	20	Beaconsfield Upper PS			
	24	Epping Primary School			
	28	Jells Park Primary School			
8	29	Jells Park Primary School			
	33	Lucknow Primary School			
	37	Moama Public School			
	41	Mt Eliza Primary School			
9	30	Kingsley Park Primary School			
	34	Maryborough EC			
	38	Mornington Primary School			
	42	Mt Eliza Primary School			



CIRCUIT LENGTHS

RACV - 1.58 km
CFA - 1.11 km

KEY

- Toilets
- Showers
- Camping Area
- First Aid
- Food & Refreshments
- Assembly Point
- Marshall Point & Number
- Track Direction
- Start/Finish
- Pushcart Changeover Point
- Wrist Banding Station
- Repair Station
- Recharge Station
- Parking Area
- On-site Supermarket
- Hospitality Marquee
- RACV Stage
- CFA Stage
- Road Closure

RACV ENERGY BREAKTHROUGH SITE