

THERE ARE 2 PARTS TO THE PHYSICS IN MOTION SCIENCE EXCURSION

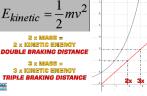
PART 1: TRAINING VIDEOS

You will be sent a series of videos to prepare students for the excursion. There are 6 videos covering:

ACCELERATIONVEHICLE DYNAMICSBRAKINGVEHICLE SAFETY SYSTEMSG-FORCECRASH ANALYSIS









A SCIENCE EXCURSION TO EXPERIENCE VEHICLE SAFETY AND THE LAWS OF MOTION

2. PRACTICAL EXCURSION

Students then attend a 4 hour science excursion and collect data for their Physics in Motion workbooks.

Practical demonstrations and experiments will cover: BRAKING

Vehicle Safety Systems (ABS, AEB) Braking Techniques Coefficient of Friction Braking Distances vs Speed Braking Distances vs Mass Skid Mark Analysis

SPEED/VELOCITY

Speed & Velocity Measurements Radar Guns vs GPS vs Speedometer vs Distance over Time

G-FORCE

Acceleration vs Braking vs Cornering Vehicle Dynamics 100% Rule of Tyres Stability Control on/off How Seatbelts Function



VENUES:

RACQ Mobility Centre¹ (Cornubia) 8:30am Willowbank Raceway (Ipswich) 9:30am start Carnell Raceway (Stanthorpe) 9:30am start

Also available in Townsville, Mackay, Emerald, Roma, Grafton, Armidale, Tamworth but additional costs apply

\$2880 inc GST This excursion is for up to 32 students with 2 instructors + 2 vehicles

\$4620 inc GST This excursion is for up to 60 students allowing physics classes from several schools to combine and share the cost. 3 instructors + 3 vehicles will be supplied

¹ The RACQ Mobility Centre imposes strict cancellation penalties which make us liable for the venue hire within 35 days of a proposed date. As such we must seek a non-refundable deposit of \$660 and the course must proceed regardless of the weather.

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A SIMULATOR PROGRAM TO EXPERIENCE CRASHES AND THE LAWS OF MOTION

THERE ARE 2 PARTS TO THE PHYSICS IN MOTION SIMULATOR PROGRAM

1: TRAINING VIDEOS

You will be sent a series of videos to prepare students for the excursion.

There are 10 videos covering:

SIMULATOR GUIDE	VEHICLE DYNAMICS
BRAKING	VEHICLE SAFETY
G-FORCE	CRASH ANALYSIS
WEATHER	TAILGATING DANGER
ACCELERATION	IMPAIRED DRIVING









2: SIMULATOR RENTAL

The Driving Simulator will allow your Physics students to experience the following scenarios:

Braking Distances vs Speed Reaction Time Vehicle Safety Systems (ABS on/off) Unexpected Emergency Situations Vehicle Crashes (into trees/poles/vehicles) Change of Weather (friction from road) Change of Lighting (night, sun glare, fog) Tailgating Dangers Alcohol Impairment Mode Distracted Driving can be experienced THE RENTAL INCLUDES: ✓ Driving Simulator frame with steering

- Driving Simulator frame with steering wheel, pedals and gear shifter
- Computer loaded with City Car Driving simulation software (commercial edition)
- Hard Storage Crate (with wheels)
- Instructions for Simulator operation YOU WILL REQUIRE:
- ✓ Chair for simulator driver to sit in
- ✓ Monitor screen (via HDMI to computer)



RENTAL FEE: South-east QLD \$1430 inc GST for up to 7 business days includes delivery and collection +\$110 per day thereafter until returned

RENTAL FEE: rest of Australia* \$2200 inc GST for up to 9 business days includes delivery and collection

- +\$110 per day thereafter until returned
- * a surcharge may apply for remote locations

The renter is liable for any damage to the simulator and all accompanying training materials/equipment while in your possession. Insurance coverage while in transit is held by us.

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