

ROAD SAFETY STATS & FACTS

LESSON 3 – ROAD SAFETY STATS & FACTS

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LEARNING INTENTIONS

1. Rank road user groups involved in road crashes in WA from most at risk to least at risk.
2. Predict impacts of road crashes.
3. Identify individual circles of support.

MAPPING

LEARNING AREA	STRAND	SUB-STRAND	CONTENT DESCRIPTOR
Year 10 Syllabus Health and Physical Education	Personal, social and community health	Being healthy, safe and active	The impact of societal and cultural influences on personal identity and health behaviour
		Communicating and interacting for health and wellbeing	Critical health literacy skills and strategies
Year 10 Syllabus Mathematics	Statistics and probability	Data representation and interpretation	Evaluate statistical reports in the media and other places by linking claims to displays, statistics and representative data
Year 10 Syllabus Humanities and Social Sciences	Humanities and Social Sciences skills	Questioning and researching	Construct, select and evaluate a range of questions and hypotheses involving cause and effect, patterns and trends, and different perspectives

GENERAL CAPABILITIES

-  Literacy
-  Numeracy
-  Critical and creative thinking
-  Personal and social capability
-  Intercultural understanding

WHAT'S IMPORTANT FOR TEACHERS?

SUPPORT AND TRUST IN THE CLASSROOM AND APPROACHES THAT WORK

1. Discussing road trauma, serious injury and death, and criminal conviction may raise concerns and emotions among some young people.
2. It is important that teachers are aware of students who have been directly or indirectly involved with road-related trauma and consider the following points before conducting activities that refer to serious injury and death.
 - Students who feel emotional discomfort should be offered the option to pass or disengage from the activity.
 - Provide regular opportunities for students to debrief and discuss their feelings.
 - Promote the benefits of coping and self-management skills so that students have the ability and confidence to seek help for themselves and others, if needed.
 - Establish a supportive and non-threatening classroom atmosphere where discussions about beliefs and values can be shared with respect and tolerance.
 - Remind students to avoid disclosing personal information and anecdotes.
3. Provide students with information about available support services in the school and community, such as:
 - the school chaplain, psychologist, nurse, year coordinator, pastoral care coordinator or form teacher
 - **Road Trauma Support WA**
A free state-wide counselling service to reduce psychological and social distress for all people affected by road trauma.
☎ 08 9420 7262
☎ 1300 004 814
🌐 <http://www.rtswa.org.au/>
 - **Legal Aid WA**
Free advice for young people facing large debts and bankruptcy in relation to purchasing a car, and information about loans, contracts, legal rights, and repossession.
☎ 1300 650 579
🌐 www.legalaid.wa.gov.au/myCar

4. Teachers should use effective teaching and learning strategies included in the Keys4Life program, and be aware of other approaches that are less effective.
 - Interactive programs that use a discussion format to explore content and different teaching and learning strategies, have been found to be more effective than non-interactive programs (Tobler & Stratton, 1997). This is also true for programs that engage students in the underlying motivations of risky behaviour, and program that address factors such as, the influence of social norms, beliefs, values and social skills.
 - In general, images and messages arousing fear in students have not been proven to be effective and do not encourage positive behaviour change (Ruiter, Abraham and Kok, 2001; Lewis, Watson & Tay, 2007; Harris, 2013).
 - Programs that primarily focus on providing information and do not include activities that develop attitudes and self-competencies, have little success in achieving positive behavioural change (Christie, 2001).

YOUNG ROAD USERS AND CRASH INVOLVEMENT

1. Young drivers aged 17 to 24 years are significantly overrepresented in serious injury and fatal road crashes (when analysed as a proportion of licensed drivers) in Western Australia and worldwide. They are at greatest risk of crashing within the first six months of gaining a licence, and overall, young males are at a much greater risk of fatality and injury than females (Palamara, Legge & Stevenson, 2001; Senserrick & Haworth, 2005). Young males living in rural and remote areas are particularly at risk. Young Aboriginal people also have higher rates of death and hospitalisation per population compared with young non-Aboriginal people (Cercarelli, 1999).
2. Statistically 17-24 year olds are more likely to die on WA roads than other age groups (Royal Automobile Club of Western Australia, 2012).

- The number of registered motorcycles in WA has more than doubled between the baseline period (60,252) and 2016 (128,619). The 213% increase in WA is higher than other Australian jurisdictions at 78% (Road Safety Commission <https://www.rsc.wa.gov.au/Your-Safety/Vehicles/motorcycles>). People are vulnerable when riding a motorcycle on a road for a number of reasons.
 - They have little protection in the event of a crash, compared with a car.
 - Riders are subject to variations in road surface conditions.
 - It requires more control and skill by the rider to operate safely compared to a passenger car.
 - Motorcycle riders operate in high speed environments beyond the safe physical tolerance limits the body can withstand without serious harm in a crash.



FIND OUT MORE

Road Safety Commission

Ride to arrive – Video (30 secs) and key messages about motorcycle safety

<https://www.rsc.wa.gov.au/Campaigns/Ride-to-Arrive>



FIND OUT MORE

For current road trauma statistical information, access the following resources.

Road Safety Commission

Annual statistics

<https://www.rsc.wa.gov.au/Statistics/Annual-Statistics>

Australian Government

Department of Infrastructure, Regional Development and Cities

Road Trauma Australia – Annual summaries

<https://bitre.gov.au/publications/ongoing/road-deaths-australia-annual-summaries.aspx>
https://bitre.gov.au/publications/2013/files/is_051.pdf

National Road Safety Strategy

Road deaths by age group

<https://roadsafety.gov.au/performance/road-deaths-age-group.aspx>

ABC News

This is every road death since 1989

<https://www.abc.net.au/news/2018-01-25/every-road-death-in-australia-since-1989/9353794>

CHARACTERISTICS OF YOUNG PEOPLE THAT CAN CONTRIBUTE TO THEIR CRASH INVOLVEMENT

- A number of factors may contribute to the over representation of young people in road crashes, with all of these factors being accentuated in males.
 - Increase in personal independence and less likely to be driven or accompanied to school or social events by parents.
 - Socialise more often than younger or older people.
 - Often travel with inexperienced drivers.
 - Assert their individuality in various ways.
 - Are highly influenced by their peers, at times in a negative way.
 - Have a fearless attitude and tend to take more risks.
 - Are easily distracted especially when travelling with friends.
 - Are over-confident in their ability to drive.
 - Believe that 'it won't happen to me'.
- The crash rate for learner drivers is much closer to zero than for provisional drivers. This very low crash risk can be attributed to the learner driver being assisted and supervised while driving.

3.1

ACTIVITY 3.1

CRASH STATS

PLANNING AND PREPARATION

- Activity sheet – *Who's at risk? (A)* for different types of road users (page 68) – photocopy one per student
- Activity sheet – *Who's at risk? (B)* for different types of road users (page 69) – photocopy one per student
- Internet access or copies of the most recent Road Safety Commission Preliminary summary of fatalities on Western Australian roads available from <https://www.rsc.wa.gov.au/Statistics/Annual-Statistics> focusing on the pages on road user type, gender and age (eg pages 22-24 in the 2017 document)
- *Behind the wheel – Quiz 7 – Seatbelts* (page 26)

REVISE

1. Ask students to complete the following quizzes in *Behind the wheel* if not yet completed.
 - Quiz 3 – *Indicating and hand signals* (page 22)
 - Quiz 4 – *Intersections and turning* (page 23)
 - Quiz 5 – *Traffic signals and road markings* (page 24)
 - Quiz 6 – *Traffic signals* (page 25)
2. Check answers with students and re-teach any concepts required.

PROCEDURE

CRASH STATS

1. Introduce the lesson's activities by reading the preliminary summary of fatalities from the latest year available (eg page 9 of the 2017 document).
**Road Safety Commission
 Annual statistics**
<https://www.rsc.wa.gov.au/Statistics/Annual-Statistics>

2. Give each student a copy of *Who's at risk? (A)* (page 68) or *Who's at risk? (B)* (page 69).
3. Explain that students are to predict which road user group was most represented in WA fatal crashes and injuries. Each road user group card should be cut out and ranked on the list, with 1 being the highest crash involvement to 10 being the least.
4. Students then share their rankings and give reasons for their placement of each road user group.

Answers for activity sheet *Who's At Risk? (A)*

Male drivers
 Female drivers
 Male passengers
 Female passengers
 Male motorcyclists
 Male pedestrians
 Female pedestrians
 Male cyclists
 Female cyclists
 Female motorcyclists

Answers for activity sheet *Who's At Risk? (B)*

Drivers
 Passengers
 Motorcyclists
 Pedestrians
 Cyclists



Answers are based on data from the following resources. Data does change so it is recommended that educators check the order of user groups using current statistics available from the Road Safety Commission.

REPORTED ROAD CRASHES IN WESTERN AUSTRALIA 2015

Road Safety Commission
<https://www.rsc.wa.gov.au/RSC/media/Documents/Road%20Data/Statistics/Annual%20crash%20statistics/annual-crash-statistics-2015.pdf>

2017: PRELIMINARY SUMMARY OF FATALITIES ON WESTERN AUSTRALIAN ROADS

Road Safety Commission
<https://www.rsc.wa.gov.au/RSC/media/Documents/Road%20Data/Statistics/Annual%20crash%20statistics/annual-prelim-crash-statistics-2017.pdf>

5. Ask students to move into pairs.
6. Allow students to access the following website or provide them with the relevant hard copy print outs from the document (the pages on road user type, gender and age from the latest preliminary summary of fatalities document).
Road Safety Commission
Annual statistics
<https://www.rsc.wa.gov.au/Statistics/Annual-Statistics>
7. Using the information on these pages ask students to answer the following questions.
 - What have you learnt?
 - Why do you think more males than females are involved in road crashes? *(Take more risks. More often the driver. Don't wear a seatbelt. Speed can be a factor).*
 - What factors do you think contribute to crashes involving young people? *(Alcohol, drugs, fatigue, speed, distractions, not wearing a seatbelt, overcrowding vehicles, drivers who are inexperienced and overconfident).*

- What can a young driver do to reduce the likelihood of being involved in a crash? *(Get as many hours of supervised driving practice as possible. Don't drive after consuming alcohol or using other drugs. Have a 'get home safely' plan. Always wear a seatbelt. Drive to the conditions. If tired, don't drive).*



AT HOME TASK

1. Encourage students to access the Department of Transport's road rules theory test quizzes to begin building and consolidating their knowledge of road rules.



FIND OUT MORE

Department of Transport
Road rules theory test quiz
<https://www.transport.wa.gov.au/licensing/road-rules-theory-test-quiz.asp>

2. Ask students to complete Quiz 7 – Seatbelts (page 26) from *Behind the wheel*.



WHO'S AT RISK? (A)

There are several different types of road users – drivers (male; female), passengers (male; female), motorcyclists (male; female), pedestrians (male; female) and cyclists (male; female).

Consider which road user group is most at risk of being killed or injured in a crash.
Place them in order, from **most at risk (1)** to **least at risk (10)**.

MOST at risk
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
LEAST at risk

FEMALE DRIVERS
FEMALE PASSENGERS
FEMALE PEDESTRIANS
FEMALE CYCLISTS
FEMALE MOTORCYCLISTS
MALE DRIVERS
MALE PASSENGERS
MALE PEDESTRIANS
MALE CYCLISTS
MALE MOTORCYCLISTS

The Keys4Life Program is a Road Trauma Trust Account funded project approved by the Minister for Road Safety and supported by the Road Safety Commission.

WHO'S AT RISK? (B)

Which group is most at risk of being killed or injured in a crash? Cut out the groups and place them in order from **most at risk (1)** to **least at risk (5)**.

MOST at risk	
①	
②	
③	
④	
⑤	
LEAST at risk	

DRIVERS

MOTORCYCLISTS

PASSENGERS

CYCLISTS

PEDESTRIANS

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3.2

ACTIVITY 3.2

ROAD CRASH EFFECTS

PLANNING AND PREPARATION

- Activity sheet – *Roll the die* (page 72) – photocopy one per student
- Large sheet of paper – one per group
- Large sticky notes – one per student
- Die – one per group
- A4 paper – one sheet per student

PROCEDURE

ROLL THE DIE

1. Place students in groups of four to six and give each group a large sheet of paper, sticky notes and one copy per student of *Roll the die* (page 72).
2. Ask each group to draw an overhead view (ie bird's eye view) of a car on the large sheet of paper. The drawing should fill the paper.
3. Explain that each student is to create the character of a young person up to the age of 25, by writing the answers to all of the questions listed on *Roll the die* (page 72) (eg age, relationship with other people in the car, goals in life etc) on a sticky note.
4. Allow time for students to develop their character.
5. Ask each student to place their sticky note inside the outline of the car and share their character's information. Each character should be in a different position of the car (eg driver, rear left passenger).
6. Tell students that only two people in the car are wearing seatbelts. Each group must decide which two characters in their car are wearing a seatbelt and place a tick on the corresponding sticky notes.
7. Explain to students that in a real-life crash, events will not follow a strict pattern as to who lives, dies or is injured. To simulate this element of chance, read the following crash scenario.

Crash scenario

You're all on your way home after watching a sporting event. Everyone has had a great time especially since the team you all follow has won. Some of you have been drinking and the music is up really loud. Only two of you are wearing a seatbelt. There's a slow car in front and someone yells to the driver to overtake it. The driver starts to speed up and overtake but there's a curve ahead and suddenly a car's headlights appear. Crash!

8. Students take turns throwing the die to determine the level of injury for their character (described on the activity sheet).



Tell students to deduct one from the number thrown if their character was wearing a seatbelt to reduce their injury (eg throw a four, level of injury is three). For those not wearing a seatbelt, students must add one to the number thrown to increase their injury (eg throw a three, level of injury is four). If one is rolled and the character was wearing a seatbelt, they remain uninjured.

9. Each character's injuries should be written on the sticky note. If the character was fatally injured, students should draw a cross through their sticky note.

PROCESS

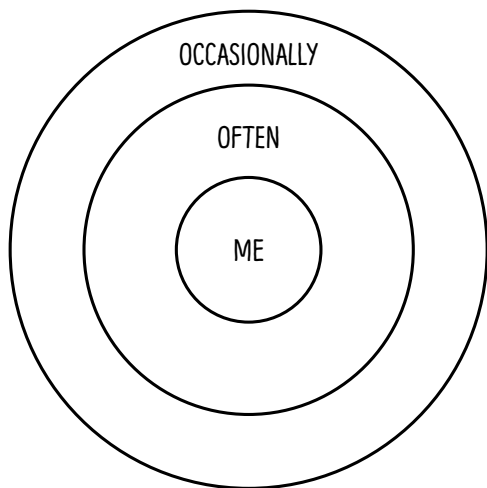
1. Give groups time to process the activity by discussing the consequences of the crash for each occupant in the car. Have students discuss and then write their answers to the questions listed on *Roll the die* (page 72).



EXTENSION ACTIVITY

CIRCLE OF SUPPORT

1. Draw three concentric circles on the board. Label the centre circle 'me', the second circle 'often' and the third 'occasionally'.



2. Suggest to students that everyone has a 'circle of support' that includes people they talk to when faced with a problem or are feeling upset, and that the person they choose to talk to may depend on the problem or situation.
3. Use the example of 'being worried about failing an important exam' or 'having an argument with a friend' to show how the circles can be used to identify those who may offer support or advice depending on the problem or situation. Ask students to give some examples and write these in the circles.
4. Ask students to draw and label their own 'circle of support' on a piece of paper then write the names of people who they always ask for advice or to listen to their problems, in the circle labelled 'often'. Students repeat this for the 'occasionally' circle.
5. In pairs, students should share and discuss why they have used these people to offer advice or support (eg a friend may be a good listener or someone to bounce ideas off on or a teacher who is always willing to help students who are struggling at school).
6. Suggest to students that how a person reacts to road trauma, either directly or indirectly, and who they seek help from, may be different to those people identified in the previous activity.

7. Read the following scenario to students.

Scenario

Your mum is driving everyone home after the movies. She pulls up at a red light. All of a sudden a car speeds through the red light, crashes into another car and rolls it onto its side. You can hear people screaming and can see one person lying on the road. Your mum runs over to the rolled car to see if she can help and asks you to check the other car. When you look in the window you can see the driver is covered in blood and is not moving.

8. Ask students how they might react to this situation both in the short and long-term and who might help them deal with their reactions (eg a parent, doctor, friend, school counsellor, person with similar experience, church member).
9. Have students write these names on their sheet using a different colour pen. Ask students to tick the names of people previously identified.

PROCESS

1. Have students share their responses then discuss the following questions as a class.
 - What changes did you notice to your circle of support when faced with a road crash situation? Why?
 - Who would you ask for help if you were involved with a road crash?
 - Why is it important to talk to others about your feelings?
 - How could you help a friend or family member deal with their reaction to a crash?
 - If someone is sharing a problem with you, what can you do to show them that you are interested and sincere? (*Paraphrasing, eye contact, sitting face on, nodding head to confirm understanding or show empathy*).
2. Advise students of the contact details for the free counselling and advice service provided by WA Road Trauma Support.
 - ☎ 9420 7262
 - ☎ Freecall: 1300 004 814,
 - 🌐 <http://www.rtswa.org.au/>

ROLL THE DIE



TASKS

1 Build a profile for your character answering the following questions.

What is your name and how old are you?

Who is in your family? (Parents, siblings, aunts/uncles, grandparents,...)

How do you know the other people in the car? (Family, school mates, in the same sporting team...)

What do you do? (Finishing high school, studying at uni, starting an apprenticeship, working, looking for a job, finished school and about to travel overseas, moving to another town, place or city...)

What are your goals in life? (Finish Year 12, be a lawyer, play for an AFL team, have a family, get a job, go to TAFE or uni, live overseas ...)

Roll the die to find out what happens to your character in the crash.



Uninjured



Injured and hospitalised for several weeks



Critically injured and on life support



Injured but not seriously enough to be hospitalised



Suffered severe injuries and became a quadriplegic



Died on impact

- 1 point
from the number rolled if
you were wearing a seatbelt.

+ 1 point
to the number rolled if you
were NOT wearing a seatbelt.

2 Reflecting on the scenario and the outcome of the crash, answer the following questions.

- What caused the crash? _____
- How might the crash have been prevented? _____
- Who do you think was responsible for the crash? Why? _____
- What would the consequences be for your character? _____
- How would the other young people in the crash be affected by the crash? _____
- How would the crash affect your character's friends, family and community? _____
- If you were the driver in a crash similar to this, how might you feel? _____
- Who could you talk to about your feelings and emotions? _____

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