LESSON PLAN

Unit 3: Getting ready to ride on the road

Lesson 9: Planning to avoid hazards

Bikes are for everyone!

Anyone can ride a bike. However, some students may require additional assistance in the form of modified equipment and differentiated teaching. Suggestions for activity differentiation are provided throughout the lesson plans. Some students may also benefit from learning support aids such as social stories and other resources. If you would like further information on options for equipment modifications, adaptive bicycles and assistive technology, and learning support aids to assist with the delivery of Bike Ed, please email bikeed@transport.vic.gov.au.

SUGGESTED STAGE

While this Unit is designed for **Years 5 and 6 (age range 10-13 years)**, you may choose to use these lessons for a different age range, depending on the development, maturity and existing bike riding experience level of your students.

SUGGESTED DURATION

This is the ninth of ten lessons for Unit 3 – Getting ready to ride on the road.
Suggested lesson duration: 45 minutes.

LEARNING INTENTIONS

- For students to plan as a group (with teacher oversight) the route for lesson 10, identifying and minimising the hazards and planning alternatives.

SUCCESS CRITERIA

- Map the safest route using technology.
- Identify and minimise hazards through planning on the route.
- Retell the planned route with others.

EQUIPMENT

Workbook, worksheets, video projector, maps, computers.

ROAD SAFETY EDUCATION VICTORIA

LESSON PLAN

Unit 3 Lesson 9: Planning to avoid hazards

CURRICULUM LINKS

The Bike Ed program is designed to support all students by emphasizing the importance of safety and promoting independent travel skills. The Bike Ed program caters for all students and recognizes the need to teach safety and independent travel for all. Acknowledging the diverse needs of learners, we are committed to providing tailored assessment materials for students working at levels below the Foundation stage (A-D curriculum). For more information please email bikeed@transport.vic.gov.au.

CONTENT DESCRIPTORS

(Geography)

VC2HG6S02 locate, collect and organise information and data from primary and secondary sources, including from fieldwork.

(HPE)

VC2HP6M01 adapt movement skills across a variety of situations, including indoor, outdoor and aquatic settings.
VC2HP6M02 transfer familiar movement strategies to different movement situations.
VC2HP6M03 investigate how different movement concepts related to effort, space, time, objects and people can be applied to improve movement outcomes.
VC2HP6M06 participate in physical activities that enhance health and wellbeing in outdoor environments and aquatic settings and investigate the steps and resources needed to promote safe participation.
VC2HP6M10 participate positively in groups and teams by contributing to group activities, encouraging others and negotiating a range of roles and responsibilities.

ACHIEVEMENT STANDARD (EXTRACT)

(Geography)

By the end of Level 6, students:

- develop questions, and locate, collect and organise information and data from a range of primary and secondary sources

(HPE)

By the end of Level 6, students:

- refine and modify movement skills and apply movement concepts across a range of situations. They transfer movement strategies between situations and analyse the impact on movement outcomes. They apply the elements of movement when creating movement sequences. They propose strategies to promote safe physical activity participation that enhance health and wellbeing.

LEVEL 5 – 6 RUBRIC: BIKE ED

By the end of Level 4	Progressing towards Level 6	By the end of Level 6
Students can identify safety issues with theirs and others' bikes, clothing or equipment.	Students can identify safety issues in their own and others' bikes, clothing, and equipment, and suggest some practical solutions to improve safety.	Students can identify safety issues in their own and others' bikes, clothing, and equipment, and suggest practical solutions to improve safety.
Students can perform a head scan and use hand signals safely at all times whilst maintaining control of the bike (in a simulated school environment).	Students demonstrate successful communication to other riders whilst within the school (head scan, head checks, hand signals, voice commands)	Students demonstrate successful communication to other riders whilst riding outside of the school (head scan, head checks, hand signals, voice commands).

Continued overleaf.

ROAD SAFETY EDUCATION VICTORIA

Unit 3 Lesson 9: Planning to avoid hazards

LEVEL 5 – 6 RUBRIC: BIKE ED (Continued)

By the end of Level 4	Progressing towards Level 6	By the end of Level 6
Students can follow basic traffic rules of riding on the left side of the road, giving way to the right and obeying road signs (in a simulated school environment).	Students obey all road safety rules in a simulated school environment (Keep to the left side of the road, leave at least 1 metre space from the parked cars, give way to the right, obeys all traffic signals and signs)	Students obey all road safety rules whilst riding outside the school (keep to the left side of the road, leave at least 1 metre space from the parked cars, give way to the right, obeys all traffic signals and signs).
Students can safely negotiate a T and cross intersection (leaving safe distance and using safe speed) (in a simulated school environment) Students can follow instructions and work as a group in the outside school grounds ride.	Students obey all road safety instructions and norms in a simulated school environment (follows all instructions from the teacher, ride in single file and does not overtake unless instructed, maintains safe space between riders (two bike lengths)).	Students obey all road safety instructions and norms whilst riding outside the school (follows all instructions from the teacher ride in single file and does not overtake unless instructed, maintains safe space between riders (two bike lengths)).
Students can identify and mitigate hazards in a simulated school setting.	Students can identify and mitigate some hazards in a community setting with assistance.	Students can identify and mitigate hazards in a community setting with assistance.
Students can plan a safe travel route with assistance (including identifying some hazards) in their community.	Students can plan a safe travel route using one form of technology and other information (with teacher assistance).	Students can plan a safe travel route using a range of technologies and information (with teacher oversight).

Tuning in activity. Observations from on-road ride.

Approx. 5 minutes

Resource Requirements

- Workbook and pen.

Safety

- N/A.

Activities & Differentiation

Brief recap of the ride that students did previously.

Students write down five different hazards that they saw whilst they were on the recent ride.

- For each hazard, describe how it is hazardous and how you negotiated it safely.

Compare this list with the student next to you. Pick one of the items from your list and share it with the class, including how you safely negotiated it.

Teaching Points

What types of hazards were there?

- Cars, intersections, parked cars, pedestrians, slippery surfaces, loose stones etc.

Key Questions

- Where are you looking to see the hazards (i.e., always scanning around the scene)?
- Which hazards do you think are the most common?
- How would you avoid the hazards?

LESSON PLAN

Unit 3 Lesson 9: Planning to avoid hazards

Activity 1. Route planning.

Approx. 10 minutes

Resource Requirements

- Printed maps.

Safety

- N/A.

Activities & Differentiation

Hand out the map of the route we will be riding for the class ride.

- The maps should have screenshots attached for the key intersections and typical scenes during the ride.
- Plot the ride on Google Maps and display this for the class.
- Have the students note the main intersections that they will be passing through. With a discussion for each key intersection.
- Students should note the key hazards they think they will find at these key locations and mark them on their maps.

Teaching Points

Key understandings are:

- Becoming more familiar and comfortable with the complicated parts of the riding route.
- Identifying hazards and potential hazards
- Appropriate reactions to hazards

Key Questions

- What are the best ways to avoid a hazard?
- Do you know these roads and intersections?
- Can you think of any hazards when you have walked or driven down these roads before?

Activity 2. Virtual ride.

Approx. 10 minutes

Resource Requirements

- Computers for students.

Safety

- N/A.

Activities & Differentiation

Distribute iPads or computers for each student or one between two.

- Using Google Street View, students should do a virtual bike ride through the route.
- Students should rank the key intersections and locations by difficulty, writing this down on the maps.
- After ranking, talk through the most difficult intersection(s) with the class. Show how we will be negotiating them and providing strategies on negotiating similar locations.

Modification

- If no IT is available, the activity can be teacher led using a screen at the front of the classroom.

Teaching Points

Teachers should focus on map reading skills in additional to gaining familiarity with the route and riding from a bike riders' perspective.

Key Questions

- Why did you rank this as the most difficult location?
- Which was the easiest place to ride? Why?

Progression

If time allows challenge students to find a better route to ride.

The criteria should be:

- Easy to ride (i.e., not too hilly)
- Safe to ride (safe roads, safe intersections, identify potential hazards)
- The right length to fit in class (approx. 60 minutes)

Plot the ride on a fresh map. Provide a justification- for the ride that addresses the key criteria.

Unit 3 Lesson 9: Planning to avoid hazards

Activity 3. Road hazards story worksheet.

Approx. 15 minutes

Resource Requirements

- Hazard perception worksheets, video projector.

Safety

- N/A.

Activities & Differentiation

Hand out the worksheet, where students will need to identify common hazards in a road scene.

- Students will take these hazards and create a story of a hypothetical ride where they encounter these hazards.

Teaching Points

One of the best ways to react to hazards is if you've already imagined them. This means that you can already have a plan and then simply enact it when you encounter the hazard in real life.

Key Questions

- How do we know what the hazards are?
  - Does it have the potential to affect our riding path? Such as a car crossing the bike lane, or dog, or a slippery bit of road?
- How should we be reacting to them?
  - Don't make sudden movements, like swerving, as you may put yourself in the way of other road users behind you.
  - Slow down in a controlled manner, and ride at a speed where you can easily deal with the hazard.

Optional. Follow the leader.

Approx. 5 minutes

Resource Requirements

- Bicycles and helmets.

Safety

- Students must maintain at least two bike lengths distance to other bike riders.
- Ensure full safety checks are completed before any bike riding activity.

Activities & Differentiation

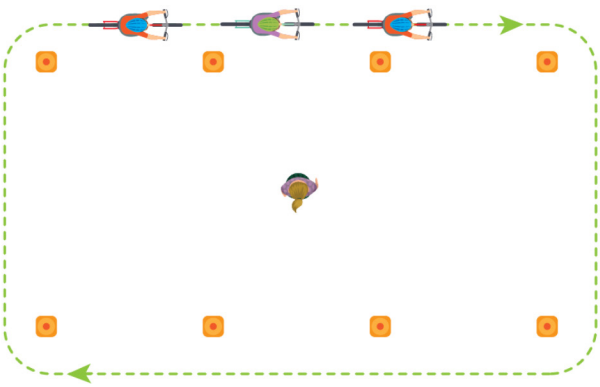
If you wish to (and can) get the students out of the classroom and onto their bikes, then do some practice following the teacher on bikes. This is what they will be doing next class on their outside ride, so this is a good skill to practice.

Practice ride for next class

Ask students about what is important when you are riding with other people?

- Keeping space between yourself and the bikes around.
- Keep at least two bike lengths between yourself and the bike in front.

Activity Setup



- Remember signaling and head-checks.

Follow the leader

Set up a large square or oval circuit for students to ride around.
Students ride in a single file around the course.

- Students must be careful to maintain the two bicycle lengths between them and the bike in front.

An alternative is for the teacher to lead a ride around the school ground or surrounds. This is preparation for the out of school ride next class.

- Include hand signals and voice calls that need to be passed back along the group – such as hand signals for turning, and calls for "slowing", "stopping", or pointing out obstacles (pot-holes, posts, speed humps, sticks, rocks, dogs, potential car doors, etc).

Modifications

- Students who are not yet able to balance and pedal can still participate in this activity using a balance bike (refer to additional resources).

For students who are struggling or nervous about taking a hand off the handlebars to signal, suggest that they follow this process. Once they can ride for at least 10 metres completing the task, they can move to the next step.

1. Start by simply loosening the grip with the signaling hand, to feel how the balance needs to shift.
2. Take the hand off the grip completely but hover it approx. 5-10cm above the grip.
3. Take the hand off the grip and place it on the knee on the same side.
4. Take the hand off and move it very slowly outwards away from the body.
5. Progress to a full signal.

- *Note that the first 3 steps have the hand in line with the body, so that the balance point is not disrupted by moving the arm sideways. Explain this to students so they understand the importance of moving the arm out slowly, until they are very comfortable with the process.*

Teaching Points

Teacher or assistant should lead the ride since moderating the speed will be important.

Signaling

- Communication is very important so that group members and other road users (cars etc.) are not going to be surprised by our movements.
- Use both voice and arm signals.

Head checks

- The head check should be smooth and brief, just long enough to see what's around.
- The tendency is for riders to drift in the direction they are doing the head-check. Make sure that the riders keep riding straight.
- To avoid drifting while performing a head check over the right shoulder, lock the right elbow (straight arm), and bend the left. This locks the handlebars in position and prevents them turning outwards when you turn your head. (for the left side head check, lock the left elbow).
- It is easier to turn your head when you tuck your chin slightly towards your armpit first, especially for those with limited range of motion.

Key Questions

- Why do we need to keep space between the bikes?
  - To help us prevent any collisions.
  - Safe attitude!
- Why do we signal?
  - So that other people can know what we are going to do, so they can avoid us.
  - Safe!
- Why do we do a head-check?
  - Because we want to make sure that nobody is coming when we turn or change lanes.
  - We can't see behind us, so we need to do a quick look so that we know what's coming.
  - Safe!

Reflection & closure.

Approx. 5 minutes

Activities & Differentiation

Reflect on route mapping and hazard identification activities.

Thumbs up/down/sideways: Are you confident negotiating the hazards we will be seeing on the class ride?

Key Questions

- What are the most important things to look for when selecting a route to ride?
- Why should we look to check our route online before we go for a ride?