LESSON PLAN

Unit 3: Getting ready to ride on the road

Lesson 6: Road 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 sixth of ten lessons for Unit 3 – Getting ready to ride on the road.
Suggested lesson duration: 45 minutes.

LEARNING INTENTIONS

- For students to identify and be able to mitigate detailed hazards in a classroom setting.

SUCCESS CRITERIA

- Detect hazards and explain why they are dangerous.
- Explain ways to avoid hazards.

EQUIPMENT

Computer, projector or tv; hazard videos, road hazards and blank hazard scene worksheets available from the Bike Ed Resources website https://www.roadsafetyeducation.vic.gov.au/educational-resources/programs/bike-ed-new/school-program-resources

ROAD SAFETY EDUCATION VICTORIA

LESSON PLAN

Unit 3 Lesson 6: 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.

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. Brainstorming key bike skills.

Approx. 5 minutes

Activities & Differentiation

Ask the class (collate class responses)

- What things can be dangerous when you're riding your bike on a bike path?
- What can be dangerous when you're riding on the road?

Discuss any hazards that have not been raised.

Teaching Points

Provide a definition of what a hazard is and an example.

- Hazard: Something that is, or has the potential to become, dangerous to for you.
- For example, another bike rider or a car on the road is a hazard because it could be unsafe, and we have to avoid them. Or a slippery water puddle is a hazard, because we may slip and fall off the bike.
- Check for: other road users (pedestrians, cars, pets etc.), road furniture (signs, traffic lights, posts and trees etc.) and the riding surface (stones, water, holes, cracks, tram/train tracks etc.).

Key Questions

- Which hazards do you think are the most common?
- What are some that you saw on your way to school today?

LESSON PLAN

Unit 3 Lesson 6: Hazards

Activity 1. Hazards on paths.

Approx. 5 minutes

Resource Requirements

Teacher: TV or projector, computer, hazard videos.
Student: Pen and workbook.

Safety

N/A

Activities & Differentiation

Note: These videos are for hazards on paths. The class rides will be on roads, so make sure that you allow enough time to view some of the road-based hazard videos.

A series of videos have been provided of riding along a path from a bike rider's perspective. Each contains approximately 30 seconds of riding footage.

- The first half of the video is unedited footage from the rider's point of view (POV).
  - Tell the students to watch the videos and remember the hazards that they see.
  - Pause the video after the unedited rider POV section has finished.
  - Ask students which hazards they saw why they think they're a hazard.
- The second half of the video is the same footage slowed down and highlights the main hazards the rider faced.
  - Were any of these hazards surprising?
  - Could the students see any other hazards that weren't highlighted?
  - How would the students change their riding behaviour to negotiate the hazards?

Repeat this activity for as many videos as you find are useful.

There are six videos of the rider on a shared path, which can be selected in any order.

- Video 1: Easy ride on path with minimal hazards.
- Video 2: Easy ride, finishing with an approach to a busy road.
- Video 3: Easy ride, with rider crossing a road.
- Video 4: Starts at traffic lights with other pedestrians and bike riders.
- Video 5: Approaches and crosses at traffic lights with other pedestrians and bike riders.
- Video 6: Rides around blind corners on shared path.

Teaching Points

What a hazard is:

- Something that is, or has the potential to be, dangerous.

Scanning:

- Keep moving your eyes around the area rather than staring at only one spot.

Potential Hazards:

- Look at things that might be dangerous when you get there, not just things that are already dangerous

Things to look for:

- Cars, bike riders, pedestrians on the road or near the road, animals, road surface changes like potholes, water, dirt or leaves, gravel, stop/give way signs and traffic lights.

Avoiding hazards:

- You may either slow down/stop or move to avoid the hazard.
- It's better to slow down since moving may put you in danger from cars or other bike riders driving nearby.

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?

Activity 2. Hazards riding on the road.

Approx. 15 minutes

Resource Requirements

Teacher: TV or projector, computer, hazard videos.
Student: Pen and workbook.

Safety

N/A

Activities & Differentiation

This activity is the same as the previous one, but the videos will be of riders on the road. These roads may be busier than the roads they are riding down, so there will be many hazards to look at.

Each contains approximately 30 seconds of riding footage.

- The first half of the video is unedited footage from the rider's point of view (POV).
  - Tell the students to watch the videos and remember the hazards that they see.
  - Pause the video after the unedited rider POV section has finished.
  - Ask students which hazards they saw why they think they're a hazard.
- The second half of the video is the same footage slowed down and highlights the main hazards the rider faced.
  - Were any of these hazards surprising?
  - Could the students see any other hazards that weren't highlighted?
  - How would the students change their riding behaviour to negotiate the hazards?

Repeat this activity for as many videos as you find are useful.

There are four videos of the rider on a road, which can be selected in any order.
Video 1: No major intersections, a few car interactions.
Video 2: Riding through roundabout and past a worksite.
Video 3: Ride that ends at a traffic light.
Video 4: Car activity, car door near miss.

Ask the students where they were looking when they were looking for hazards.

- When on our bikes we should be looking well ahead of the bike. That's because we want to see the hazards early so that we can avoid them.

Think/pair/share:

- Write down as many hazards as you saw in the journey.

Teaching Points

Many of the hazards are similar on paths as they are on roads. There are some important differences:

- Cars and other vehicles.
- Car doors. These are very dangerous as many drivers don't look when they open a door, so ride at least 1-1.5 m away from them.
- Some people won't be looking for bikes, so you need to assume that you might not be seen.

Where are you looking in the video?

- Students should be looking well ahead of the bike (20 metres).
- Try to anticipate the hazards before they arrive at the bike.
- Reinforce constant scanning.

Avoiding hazards:

- You may either slow down, stop, or move to avoid the hazard.
- It's better to slow down since moving may put you in danger from cars or other bike riders driving nearby.

Key Questions

- What road hazard do you expect will be different for riding on roads, when compared with the bike paths?
- Where are you looking to see the hazards (i.e., always scanning around the scene)?
- Why should we be trying to see hazards when they are further away?
- How do you avoid a collision with someone who can't see you?
  - Use your bell or a loud voice.

- Which hazard do you think was the most dangerous?
- Which hazard was the most difficult to see?

Activity 3. Road hazards worksheet.

Approx. 15 minutes

Resource Requirements

Road hazards worksheets.

Safety

N/A

Activities & Differentiation

Hand out worksheet for completion. The worksheet is focused on a few key hazard scenarios, with the additional focus being on how to avoid the hazards before they become dangerous.

Modifications

If needed, reduce the number of scenarios needed to be completed or hazards to be identified.

Progressions

- Students may add their own scenarios and ways to avoid them.
- Students may wish to draw their own scenario.

Teaching Points

Key understandings are:
- Identifying hazards and potential hazards.
- Appropriate reactions to hazards.

Key Questions

- What are the best ways to avoid a hazard?

Optional. Blank hazard scene worksheet.

Approx. 5 minutes

Resource Requirements

Blank hazard scene worksheets.

Safety

N/A

Activities & Differentiation

- Hand out worksheet for completion.
- This worksheet asks students to imagine potential hazards and draw them on a blank path.
- Students can colour in the scene if they finish early.

Key Questions

- Which hazards do we have outside this school?
- How are we able to avoid or reduce the risk of these?

Unit 3 Lesson 6: Hazards

Optional. Bike riding game.

Approx. 5 minutes

Resource Requirements

Bikes and helmets, cones etc as needed.

Safety

- Ensure full safety checks are completed before any bike riding activity.

Activities & Differentiation

Some teachers have found it useful to include an on-bike session at the end of this classroom-based theory lesson.
Feel free to select from the list of bike games if you would like to include a cycling component.

Key Questions

- Hazard awareness.
- The importance of scanning within the activity.

Key Questions

- How are you using your knowledge of hazards in this game?

Reflection & closure.

Approx. 5 minutes

Activities & Differentiation

Provide feedback on worksheet, including the hazard scenarios.

Ask some students to provide their own hazard scenarios from the worksheet.

Thumbs up/down/sideways: Do you feel like you know how to identify and avoid hazards when you're riding?

Key Questions

- What is a hazard?
- Which hazards do you think are the most common?
- Which hazards do you think are the most dangerous?
- Where are you looking to see the hazards (i.e., always scanning around the scene)?
- Why should we be trying to see hazards when they are further away?
- What are the best ways to avoid a hazard?