Everyone is a road user: appendices

Updated 2022

# Appendix 1: SOLO self-assessment rubrics

These SOLO self-assessment rubrics cover:

**Actions** – no compromises; demonstrate a commitment to safer travel on local roads and keeping citizens safe when they use local roads. Adopt a “sort it and report it” approach to unsafe actions on local roads. Take responsibility for past actions and make efforts to improve situational awareness when using local roads. Seek out and correct unsafe actions on our roads. [Functioning Knowledge]

**Collaboration** – listen, respond and act together to make safer travel for all citizens and road users on local roads. [Functioning Knowledge]

**Communication** – communicate (describe, explain and justify) ways to manage safer travel with others on local roads. [Functioning and Declarative Knowledge]

**Links to exercising and strengthening Key Competencies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Thinking** | **Managing self** | **Participating and contributing** | **Relating to others** | **Using language, symbols and text** |
| Critically analyse the factors influencing safer travel for [a given group of road users] on local roads.  Example – describe, explain and justify ways to stay safe when using local roads as a pedestrian, cyclist or passenger. | Act responsibly when using local roads. (Demonstrate situational awareness when using local roads.)  Example – adopt a “sort it and report it” approach to unsafe road user behaviour or conditions. | Contribute to the responsible actions and/or situational awareness of other road users.  Example – listen, respond and act together to make local roads a system free of death and serious injury. | Interact with other road users to fix local issues around safer travel on the road network.  Example – demonstrate a commitment to safer travel for yourself and other local road users. | Interpret and use language, symbols and text to communicate with other local road users for safer travel.  Example – share safe rules and behaviours for places on and around local roads. |

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| **SOLO Functioning Knowledge Rubric**  **Actions** – no compromises | **SOLO_Prestructural_Fred**  Prestructural | **SOLO_Unistructural_Fred**  Unistructural | **SOLO_Multistructural_Fred**  Multistructural | **SOLO_Relational_Fred**  Relational | **SOLO_Extended Abstract_Fred**  Extended abstract |
| **Learning intention**  *[verb] [content] [context]* | *[needs help]* | *[if directed]* | *[aware but lacks reasons – makes mistakes]* | *[purposeful – strategic – knows why and when – can identify mistakes]* | *[new ways – seeks feedback to improve – acts as role model – teaches others]* |
| **Demonstrate** a commitment to safer travel for all local road users.  **Adopt** a “sort it and report it” approach to unsafe actions and conditions on local roads.  **Take responsibility for** past actions and make efforts to improve situational awareness when using local roads.  **Seek out and correct** unsafe actions and conditions on local roads. | I need help to [insert action]. | I can [insert action] if I am prompted or directed. | I use several strategies to [insert action] but I am not sure when and/or why to use them.  *(trial and error – aware of strategies but not sure why or when to use them so makes mistakes)* | I use several strategies to [insert action] and I know when and why to use them.  *(strategic or purposeful use of strategies – knows why and when)* | I use several strategies to [insert action] and I know when and why to use them.  I can teach others to [insert action].  I act as a role model for others to help them [insert action].  I seek feedback on ways to improve how I can [insert action]. |
| Effective strategies |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **SOLO Functioning Knowledge Rubric**  **Collaboration** | **SOLO_Prestructural_Fred**  Prestructural | **SOLO_Unistructural_Fred**  Unistructural | **SOLO_Multistructural_Fred**  Multistructural | **SOLO_Relational_Fred**  Relational | **SOLO_Extended Abstract_Fred**  Extended abstract |
| **Learning intention**  *[verb] [content] [context]* | *[needs help]* | *[if directed]* | *[aware but lacks reasons – makes mistakes]* | *[purposeful – strategic – knows why and when – can identify mistakes]* | *[new ways – seeks feedback to improve – acts as role model – teaches others]* |
| **Collaboration** – listen, respond and act together to make local roads a system free of death and serious injury.   * **Listen** with others. * **Respond** to others. * **Act** with others. * **Collaborate** with others. | I need help to [insert action]. | I can [insert action] if I am prompted or directed. | I use several strategies to [insert action] but I am not sure when and/or why to use them.  *(trial and error – aware of strategies but not sure why or when to use them so makes mistakes)* | I use several strategies to [insert action] and I know when and why to use them.  *(strategic or purposeful use of strategies – knows why and when)* | I use several strategies to [insert action] and I know when and why to use them.  I can teach others to [insert action].  I act as a role model for others to help them [insert action].  I seek feedback on ways to improve how I can [insert action]. |
| Effective strategies |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **SOLO Functioning Knowledge Rubric**  **Communication** | **SOLO_Prestructural_Fred**  Prestructural | **SOLO_Unistructural_Fred**  Unistructural | **SOLO_Multistructural_Fred**  Multistructural | **SOLO_Relational_Fred**  Relational | **SOLO_Extended Abstract_Fred**  Extended abstract |
| **Learning intention**  *[verb] [content] [context]* | *[needs help]* | *[if directed]* | *[aware but lacks reasons – makes mistakes]* | *[purposeful – strategic – knows why and when – can identify mistakes]* | *[new ways – seeks feedback to improve – acts as role model – teaches others]* |
| **Communication** – describe, explain and justify ways to have safer travel on local roads.   * **Describe** ways to have safer travel on local roads. * **Explain** ways to have safer travel on local roads. * **Justify** ways to have safer travel on the local road network. * **Share** ways to have safer travel on the local road network. | I need help to [insert action]. | I can [insert action] if I am prompted or directed. | I use several strategies to [insert action] but I am not sure when and/or why to use them.  *(trial and error – aware of strategies but not sure why or when to use them so makes mistakes)* | I use several strategies to [insert action] and I know when and why to use them.  *(strategic or purposeful use of strategies – knows why and when)* | I use several strategies to [insert action] and I know when and why to use them.  I can teach others to [insert action].  I act as a role model for others to help them [insert action].  I seek feedback on ways to improve how I can [insert action]. |
| Effective strategies |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **SOLO Declarative Knowledge Rubric**  **Communication** | **SOLO_Prestructural_Fred**  Prestructural | **SOLO_Unistructural_Fred**  Unistructural | **SOLO_Multistructural_Fred**  Multistructural | **SOLO_Relational_Fred**  Relational | **SOLO_Extended Abstract_Fred**  Extended abstract |
| **Learning intention**  *[verb] [content] [context]* | *[needs help]* | *[if directed]* | *[aware but lacks reasons – makes mistakes]* | *[purposeful – strategic – knows why and when – can identify mistakes]* | *[new ways – seeks feedback to improve – acts as role model – teaches others]* |
| **Communication** – describe, explain and justify ways to stay safe on our roads.   * Describe ways to stay safe on local roads.   . | I need help to describe ways to stay safe on our roads.  . | My description has one relevant idea about staying safe on our roads. | My description has several relevant ideas about staying safe on our roads.  . | My description has several relevant ideas about staying safe on our roads **and I explain how and why these ways work.** | **… and I make a generalisation about ways to stay safe on our roads.** |
| Effective strategies |  |  |  |  |  |

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| **SOLO Declarative Knowledge Rubric** | **SOLO_Prestructural_Fred**  Prestructural | **SOLO_Unistructural_Fred**  Unistructural | **SOLO_Multistructural_Fred**  Multistructural | **SOLO_Relational_Fred**  Relational | **SOLO_Extended Abstract_Fred**  Extended abstract |
| **Learning intention**  *[verb] [content] [context]* | *[needs help]* | *[if directed]* | *[aware but lacks reasons – makes mistakes]* | *[purposeful – strategic – knows why and when – can identify mistakes]* | *[new ways – seeks feedback to improve – acts as role model – teaches others]* |
| **Communication** – describe, explain and justify ways to stay safe on our roads.   * Explain ways to stay safe on local roads. | I need help to explain ways to stay safe on our roads. | My explanation has one relevant reason for staying safe on our roads. | My explanation has several relevant reasons for staying safe on our roads. | My explanation has several relevant reasons for staying safe on our roads **and I explain why these reasons are relevant.**  [this is a reason because …] | **… and I make a generalisation about the reasons for staying safe on our roads.** |
| Effective strategies |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **SOLO Declarative Knowledge Rubric** | **SOLO_Prestructural_Fred**  Prestructural | **SOLO_Unistructural_Fred**  Unistructural | **SOLO_Multistructural_Fred**  Multistructural | **SOLO_Relational_Fred**  Relational | **SOLO_Extended Abstract_Fred**  Extended abstract |
| **Learning intention**  *[verb] [content] [context]* | *[needs help]* | *[if directed]* | *[aware but lacks reasons – makes mistakes]* | *[purposeful – strategic – knows why and when – can identify mistakes]* | *[new ways – seeks feedback to improve – acts as role model – teaches others]* |
| **Communication** – describe, explain and justify ways to stay safe on local roads.   * Justify ways to stay safe on local roads. | I can make a claim about staying safe on our roads but I need help to give a relevant reason and objection. | I can justify ways of staying safe on our roads and give a relevant reason and objection. | I can justify ways of staying safe on our roads and give several relevant reasons and objections. | **… and** I can explain why these reasons and objections are relevant to my justification. | **… and** I can :   * provide evidence, * judge the overall support for the reasons and objections, and * make an overall evaluation of my justification. |
| Effective strategies |  |  |  |  |  |

# Appendix 2: Children’s books about cycling and cyclists

Stanley and Janice Berenstain, *The Bike Lesson* (London: HarperCollins, 1964).

An overly controlling father bear buys a bicycle for his son. He attempts to teach his son by riding the bike himself, seemingly unwilling to actually give it up. The safety lessons featured are partially relevant, as they include riding on the left-hand side of the road. The father seems to “teach” by being inept enough to do “what you should not do”. He returns beaten and bruised to the house where the mother bear has remained in her nightgown (reinforcing traditional gender roles).

Cari Best, illustrated by Christine Davenier, *Sally Jean, the Bicycle Queen* (New York: Farrar Straus Giroux, 2006).

Sally Jean outgrows her old bicycle Flash and is unable to easily obtain a new one. She helps out in the neighbourhood and eventually is able to obtain a new bike; she gives her old bike to Murray Bing who proclaims himself the bicycle king. The rules of succession in the Bicycle Monarchy are not clearly explained by the end of the book.

Matt Davies, *Ben Rides On* (New York: Roaring Book Press, 2013).

Ben enjoys riding his bike to school. However, the school bully “Adrian Underbite” steals his bike, leaving Ben depressed. On his way home Ben finds Adrian dangling off a cliff, having crashed the bike. Ben considers leaving him to his fate, but saves Adrian, only to have him run away with the damaged bike. Ben awakes the next day to find that Adrian had repaired the bike for him and returned it.

At one point Ben jumps over a river which appears to contain three sharks (likely bull sharks due to the country and location).

Mordicai Gerstein, *How to Bicycle to the Moon to Plant Sunflowers* (New York: Roaring Brook Press, 2013).

A child manages to attach a length of garden hose to the moon and then cycles there from Earth to plant sunflowers so that the moon can look happy. Although the premise and plot of the story are clearly implausible, a surprising amount of thought has gone into the actual process of getting to and from the moon by bicycle, and the consequences of doing so.

In attempting the impossible, the child takes special precautions to ensure he doesn't float off into space, run out of food or suffer asphyxiation.

Lisa M. Herrington, *Bicycle Safety* (Auckland: Scholastic, 2013).

This book features a guide to the key rules of riding a bicycle safely, including hand signals for road riding and tips and tricks to avoid dangerous situations. The content is based on American road rules (unless you interpret “right side” to mean “correct side” in which case you should disregard the photo on pages 20–21, or mirror it ...).

Paul Mason, *Instant Expert: Bike Mechanic* (London: A & C Black Publishers Limited, 2011).

This book provides a “how to” guide to repair and maintain bicycles. It features tips and tricks to operate a bicycle safely and efficiently. It also contains advice on what to take on a bicycle trip and a troubleshooting section with solutions to many common problems with bicycles. Finally, switching genre entirely, the book sets out a timeline of important bicycle-related dates throughout history, making a point of difference to what would otherwise be a purely functional and practical book.

Joanne Mattern, *Staying Safe on My Bike* (Milwaukee: Weekly Reader Early Learning, 2007).

This book features full-colour photos with annotations describing safe procedures for riding bikes. It is set in the United States of America, so refers to riding on the right side of the road; for use in the New Zealand context, one must interpret the “right side” to mean the “correct side”. It includes a brief description of necessary hand signals to communicate your intentions while riding a bike.

Errol McLeary, *The Path To Ponga Pond* (Auckland: Scholastic, 2007).

Felix rides his bicycle to Ponga Pond in order to go for a swim. On the way he picks up the pug, duck, and frog. Felix and the animals work hard to get up and over the hill rather than going round it. They reach the pond at the end. In the illustrations Felix wears appropriate safety gear including a helmet. However, he puts himself at risk and seems to overburden himself by carrying the animals on his bike. The rules of doubling are not made clear in the text. Doubling is not allowed unless there is a pillion seat fitted with footrests and all passengers must wear cycle helmets.

Emilie Warren McLeod, illustrated by David McPhail, *The Bear's Bicycle* (New York: Little, Brown & Company, 1975).

This story features a child safely riding his bike around town. He performs pre-ride safety checks and follows relatively safe procedures, including for crossing roads.

A subplot is contained within the illustrations, wherein a large brown bear accompanies the child on his adventures, causing mayhem and havoc wherever he goes. The bear clearly interacts with several people throughout the story, colliding with objects and frightening bystanders, while at the start and the end he takes the form of a brown bear soft toy. It is unclear by the end whether the child is accompanied by a shape-shifting soft toy bear, or if the bear’s soft toy nature is symbolic of the child's psychosis. Without further information, the true nature of the bear, and its meaning or purpose cannot be determined.

The plot is likewise left open to interpretation.

Claudia Mills, illustrated by Catherine Stock, *Gus and Grandpa and the Two-wheeled Bike* (New York: Farrar Straus Giroux, 1999).

Gus doesn’t want to give up the training wheels on his current bike, even when he is bought a newer bike that is similar to a neighbouring boy’s bike. His grandpa helps him conquer his fear and ride a bike without training wheels.

Michelle Mulder, *Pedal It! How Bicycles are Changing the World* (Victoria, BC: Orca Book Publishers, 2013).

The multiple chapters in this book cover the origins of bicycles, the modern bicycle and its role in modern societies, non-traditional uses of bicycles, and the benefits of bicycles in society.

A. B. Paterson, illustrated by Kilmeny and Deborah Niland, *Mulga Bill's Bicycle* (Australia: Angus & Robertson, 1973).

Mulga Bill discovers that his skills at horseback riding are not transferable to bicycle riding. As a result of his misplaced confidence, he loses control of his bicycle and crashes into a river. Mulga Bill decides to go back to horse riding.

Mark Pett, *The Girl and the Bicycle* (New York, Simon & Schuster, 2014).

The story of a young girl and her fascination with a bike is told without words. The illustrations use the selective colour technique à la *Schindler's List* or *Sin City*. The girl becomes obsessed with the green bicycle, selling off her toys and her labour-power to afford the bike. When she eventually gets to the store with her money, the bike has already been sold so she spends her money on a tricycle for her little brother. Upon returning home, the girl finds that her mother/grandmother has bought the bike for her, potentially teaching her a lesson about the value of money or something along those lines.

Chris Raschka, *Everyone Can Learn to Ride a Bicycle* (New York: Schwartz & Wade Books, 2013).

Two-time Caldecott medallist Chris Raschka tells the tale of a young girl who is asked if she wants to learn how to ride a bike while wearing a bicycle helmet. The girl then learns how to ride a bike, starting with training wheels and then gaining the confidence to ride without them. The story focuses on her determination to ride bike despite the challenges involved.

Elizabeth Raum, *Timeline History: Transportation: From Walking to High-speed Rail* (Chicago: Heinemann Library, 2011).

This book contains a timeline that maps out the invention and popularisation of methods of transportation from 98,000 BCE to today. It features key dates and a glossary of terms.

Allen Say, *The Bicycle Man* (California: Parnassus Press, 1982).

Set during the Allied military occupation of Japan, this story involves a sports day at a small Japanese school. Towards the end of the story, two American soldiers arrive and perform a series of stunts and tricks on a bicycle, impressing everyone and winning a large prize. The stunts are performed without any safety gear.

Peter Smith, illustrated by Bob Graham, *Monsieur Albert Rides to Glory* (Australia: Allen & Unwin, 2014).

Monsieur Albert is a big fan of cycling and lives in Paris. He reads a newspaper and finds out about a “Grand Cycle Race”. Being a sprightly old chap, he decides to enter the race. He prepares himself a variety of supplies to ensure his safety on the ride. Albert approaches the race start and is berated by “Handsome François”, who is also racing. Albert plays it cool as the story suddenly shifts to basic rhyming pattern with a mixture of end and slant rhymes. The rhyming continues as the race begins. The race takes a dangerous turn as illustrations show cyclists weaving in and out of traffic and loose dogs interfering with the race.

(Note: This appears to represent a catastrophic failure on behalf of the race organisers, especially as there was no pre-registration of participants required.)

As the race continues, Handsome François appears unfamiliar with the classic tale of the tortoise and the hare. Albert tires and takes a nap while the race continues. Albert progresses in last place to the alpine portion of the race.

(Note: A quick Google search suggests that the nearest mountain range that fits the description in the book is the Alps.)

From his position in last place, Albert witnesses an avalanche that absorbs all the other racers including Handsome François, and carries them all into the sea. All the racers survive and Albert helps them out of the sea before continuing on to win the race by virtue of being the only racer left.

Sue Stauffacher, illustrated by Sarah McMenemy, *Tillie the Terrible Swede: How One Woman, a Sewing Needle, and a Bicycle Changed History* (United States: Alfred A. Knopf, 2011).

This is the true story of Tillie Anderson, a Swedish woman who emigrated to the United States as a teenager and grew up to become the best female cyclist in the world. The book presents her achievements in the face of adversity as a feminist model for women worldwide, inspiring a sense of freedom and self-reliance. The book lists her accomplishments at the end.

Frank Viva, *Along a Long Road* (New York: Little, Brown and Company, 2011).

A person rides a bike along a long road, passing people and buildings. He rides on the right of the road as per American road rules. The person rides fast, but does stop on occasion.

Rod Waters, *Eric’s Big Day: A Bicycle Race Unlike Any Other* (Colorado: VeloPress, 2014).

A boy leaves his house on his bike and taking an eclectic mix of objects to meet a girl from another town to watch the end of a bike race and have a picnic. Throughout his cycling journey he manages to use all the objects he brought with him to assist participants in the race. In his hurry to meet with the girl, he wins the bike race but, rather than stick around to enjoy the pageantry, he moves on to meet the girl (likely realising that the organisers would figure out that he joined the race in the final leg and wasn't registered in the first place).

*Ten Poems about Bicycles* (Nottingham: Candlestick Press, 2009).

Andrew Barton (Banjo) Paterson, Mulga Bill’s Bicycle  
Connie Bensley, Wheel Fever  
James Roderick Burns, Boy on a Bicycle  
Jonathan Davidson, A Lady Cyclist Learns to Cycle  
Derek Mahon, The Bicycle  
Helena Nelson, Bike with no Hands  
Michael Donaghy, Machines  
Paul McLoughlin, The Bicycle Garden  
Phyllis Flowerdew, A Spider Bought a Bicycle

# Appendix 3: Transport Hexagons

Infrastructure cannot keep up with growth in drivers



wicked problem



traffic congestion



Induced demand (fundamental law of road congestion):



New roads make it easier and this creates new drivers, resulting in the intensity of traffic staying the same.



parking difficulties



in suburbs close to public transport routes



in city centres



increased demand for parking space



parked cars create space consumption problems



**SOLO Hexagons**

**Unistructural LO** - single hexagon.

**Multistructural LO** - several separate hexagons.

**Relational LO** - connected hexagons (explain the cause for connecting two edges).

**Extended abstract** - tessellated hexagons (generalise about the vertex where three hexagons meet).

longer commuting times



cruising for a parking space adds to congestion



affordability of parking



increasing time spent commuting between home and work or school



caused by increasing congestion



caused by increasing distance between home and work or school



increased social isolation for drivers and passengers linked to increasing commuting time



commuters accept longer commute times in exchange for lower cost housing



house prices and rental become more affordable as distance from workplace increases



increased health problems for drivers and passengers linked to increasing commuting time - e.g. obesity, stress



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peak hours - overcrowded creates discomfort for users



inadequate public transport



public transport systems are over and under used



off peak hours - underused cannot cover costs



availability and access to public transport routes unevenly distributed - equity



public transport systems cannot cover operating and capital costs



affordability of public transport



safety (perceived and real) of public transport



deficits acceptable in past (public good) not now (controversial financial burden)



difficulties for active transport - cyclists, pedestrians



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high traffic speeds



factors presenting difficulties (real and perceived) for cyclists and pedestrians will increase car dependence



dense traffic



physical design of infrastructure and facilities



inadequate or poorly designed drop-off/parking leading to conflicts between vehicles and pedestrians



unsafe bus stopping locations (rural schools especially)



location of infrastructure and facilities



unsafe crossing facilities



unsafe intersections



lack of cycle ways and footpaths



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**Extended abstract** - tessellated hexagons (generalise about the vertex where three hexagons meet).

unsafe driver behaviour



parking allowed on opposite side of road (rural schools especially)



inadequate use of adjoining facilities such as community hall car parks (rural schools especially)



traffic overtaking near schools



overtaking near schools



inattention from motorists



motorists not obeying the 20 km/h speed limit, in both directions, past a stationary school bus that is picking up or dropping off children



unsafe and illegal parking near the school



not driving to the conditions



exceeding speed limits



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**Extended abstract** - tessellated hexagons (generalise about the vertex where three hexagons meet).

loss of public space to cars



unsafe pedestrian activity to and from school buses



lack of clear school policy and procedures that are followed



reduction in public activities that used the streets in past - markets, parades, games, and community interactions



traffic flows influence life and interactions of residents and their use of street space e.g. people walk and cycle less when traffic is high



environmental impact



energy consumption increased



noise pollution



air pollution



dependence on petroleum fuels increased



**SOLO Hexagons**

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**Multistructural LO** - several separate hexagons.

**Relational LO** - connected hexagons (explain the cause for connecting two edges).

**Extended abstract** - tessellated hexagons (generalise about the vertex where three hexagons meet).

promote good choices but plan for mistakes



strengthen all parts of the road transport system



design for human vulnerability



Focus area: system management that reflects international best practice



[Road to Zero: New Zealand's Road Safety strategy 2020-2030](https://www.transport.govt.nz/area-of-interest/safety/road-to-zero/)



Focus area: vehicle safety



Focus area: work-related road safety



Focus area: improved infrastructure and speed management



Focus area: safer choices and safer behaviour



road safety actions support health, well-being and liveable places



**SOLO Hexagons**

**Unistructural LO** - single hexagon.

**Multistructural LO** - several separate hexagons.

**Relational LO** - connected hexagons (explain the cause for connecting two edges).

**Extended abstract** - tessellated hexagons (generalise about the vertex where three hexagons meet).

increasing freight movements (due to globalisation) use same infrastructure (road and rail) as passengers creates challenges for both



amount of land devoted to transport - roads, motorways, parking



freight distribution



indigenous heath and wellbeing



need for culturally relevant travel



accessing cultural activities and sites relevant to ‘being Māori’



affordability and safety of public transport



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