Take This

Research:
http://www.nzta.govt.nz/traffic/ways/foot/index.html

Years 5-6

GEOMETRY

Position and orientation
Make available to students an A4 copy of a street map of the local area (eg. within 2 blocks of the school). Have them draw an evenly spaced grid onto the map. Have students enlarge the grid and map onto A3 paper, use letters and numbers to create a coordinate system. Use a compass to locate north from the school and include compass directions on their own map.

Have students give and record directions, using compass directions, angles and directions of turns, and grid references, to move between locations on the map. Consider having students walk, locate, mark and reference driveways which require extreme pedestrian caution.

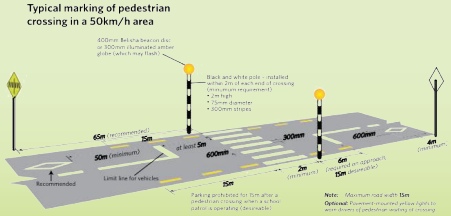
MEASUREMENT

Length
In association with road patrol responsibilities, and with adult supervision, have student pairs use measuring devices to accurately measure and record on their own diagram, the features of the school pedestrian crossing area, including road markings for pedestrians, for cars and the placement of poles/signs. All of these can be done from the pavement, except for the distance from the pavement of the first white crossing marking, the width of the white 'stripe', and the distance between this and the next marking. An adult should make this measure. Students use this info. To calculate the width of the road.

Students then access the official pedestrian crossing specifications and confirm the dimensions in their own diagrams. Diagram available online at:
http://education.nzta.govt.nz/__data/assets/pdf_file/0010/9928/School-Traffic-Safety-Manual.pdf

Create their own scale diagram 1cm:1m of the crossing area. Include this on a Road Safety poster.

Measure and record dimensions of stop signs. Create a diagram of one for their poster, choosing a suitable scale.



STATISTICAL INVESTIGATIONS AND LITERACY

*In 2012, 9 children aged 9 and under were killed on the road. Of these, 4 were passengers and 5 were pedestrians. In 2012, **358** children aged 9 and under were injured on the road. Of these, 220 were passengers, 2 were on motor-cycles, 19 were cyclists, 115 were pedestrians and 2 were other road users.*
Source: "Motor Vehicle Crashes in New Zealand 2012" MoT 2013

STATISTICAL INVESTIGATIONS AND LITERACY

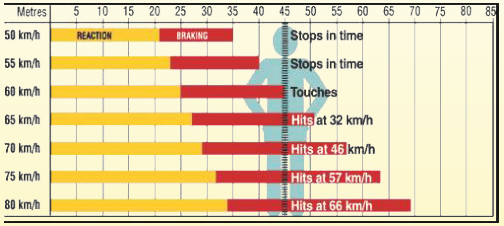
Have students present these data on a pie graph. (NB. Encourage students to see that **358** is close to 360°.) Make comparison and difference statements, and draw conclusions/ inferences.

Have students investigate summary and comparison questions, gathering, sorting, displaying multivariate data. For example: Use data squares to collect profile data of school students who walk to school/ use the pedestrian crossing/ bike to school/ride (car or bus). Profile data may include gender, age, with or without an adult, travel distance < = > 1 km, 1 or 2 ways to school (eg walk there and back), etc.

Interpret results in context, relating these to practical road safety responsibilities and messages within the school. Add data displays and findings to road safety poster.

NUMBER AND ALGEBRA

As part of ongoing numeracy learning, pose contextual traffic/safety problems that require students use partitioning strategies, mixed and inverse operations, find fractions, and use/interpret tables and graphs to show patterns. Eg. If 2/3 of ☐ (total injuries in a year), = 136, what is ☐. If 3/8 of the injuries were cyclists, and there were less than 113 total injuries, how many cyclists could have been injured?



The road is dry. A child chases a ball onto the road, 45m ahead of a modern car with good tyres and brakes. The car brakes hard. Will it stop in time? Relate this to pedestrian crossing measurements made above, and local speed limit. Explore and describe, using equations and expressions, relationships between speeds, reaction and braking distances.