



School-based Activities

Sport Safety

Skateboarding & bike riding safety

Sportsworks



What you need

- Access to an area in your local community where bike riders and skateboarders are highly visible.

What to do

1. Fill in a survey like the one below to determine who is more safety conscious, bike riders or skateboarders. Are males or females more likely to wear helmets?

Venue	Gender M/F	Approx. age	Helmet Y/N	Other safety gear
Rider 1				
Rider 2				
Skateboarder 1				
Skateboarder 2				

2. Can you provide a reason why bike riders or skateboarders are more or less safety conscious when doing risky moves?
3. Discuss whether competent skateboarders should be compelled to wear helmets. Interview competent skateboarders to find out what sorts of accidents they experienced when learning new stunts.

Useful website

Go to this website to view spectacular footage of skateboard stunts.
 Search for 'Skateboard': <http://breaktaker.com/>

School-based Activities





Racing at Moonee Valley

Background

Horse racing is very popular as a spectator sport for all sorts of reasons apart from the chance of winning some money. It is a very demanding and dangerous sport to engage in whether the horse is a thoroughbred or a paddock hack. Both horses and jockeys are regularly injured, and sometimes seriously, in their pursuit of racing glory. Over 61 jockeys have been killed in racing or training incidents in Victoria over the past 70 years.



What you need

- Collect the racing pages of the newspaper over a few weeks.

What to do

1. Draw a table to collate the frequency and type of injuries sustained by horses and jockeys either in the city or country.
2. Do the gallopers and their jockeys sustain more injuries than the trotters and their drivers?
3. Consider contacting a racing stable in order to engage a young jockey to speak to the class about his/her horse riding education. Hear about the risks and rewards of horse riding first hand.

Try, think and explain

1. To determine the speed of a jockey's impact in a fall, calculate the speed horses are travelling over a kilometre. Racing horses can run a kilometre in about a minute.

Useful website

How do I become a jockey?

<http://www.jockeysroom.com/msg4.htm>



Safety equipment

Background

Sports injuries can be severe, moderate or minor. Despite the wisdom of the adage 'no pain, no gain', sports injuries are not always a positive experience. They have the potential to detract from or even destroy the pleasure of playing sport. They can also be very expensive to treat. The sensible sports participant will try to minimise or avoid injury to increase the enjoyment and satisfaction of training, playing or competing against others.

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What you need

- A list of the safety equipment used in the following sports.
- Access to the internet.

Sport	Safety Equipment	Body part protected
AFL football		
Soccer		
Netball		
Cycling		
Cricket		
Softball		
Baseball		
Hockey		
Skateboarding		
Surfing		
Formula One		
Horse riding		
Martial arts		

School-based Activities



What to do

1. Discuss why sports people choose to wear safety equipment even when not compulsory.
2. Research the typical injuries which occur in your favourite sport. Could any of these injuries be reduced by wearing appropriate safety equipment?
3. What rates of sports injury are there in your sport or at your school?

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Above: A selection of bicycle helmets worn over the years. Only two would be acceptable nowadays.

Try, think and explain

1. Which single item of sporting equipment seems to have made the greatest contribution to individual safety?
2. How does wearing the correct helmet help individual safety?
3. What changes to rules or equipment can make a sport safer for younger students?
4. What do you think the smart play message 'Warm up, drink up and gear up' means?

Useful website

General advice on safety equipment in common sports:

http://kidshealth.org/teen/food_fitness/exercise/sport_safety.html

School-based Activities



Safety vest

Background

In December 2002, Shelia Laxon, pictured below, was thrown from a young horse into a steel gate. The list of injuries suffered by Sheila is recorded on the next page. These horrific injuries could easily have killed someone who did not have the added protection of the safety vest pictured below. All jockeys are now required by law to wear this style of safety vest when riding.

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Above left: Pictured here is Sheila Laxon, the first female trainer of the Melbourne and Caulfield Cups double.

Above right: A Phoenix Tipperary safety vest; padding constructed from polyester closed cell cross-linked foam, with Velcro adjusting straps. Made in Canada. Weight 800 grams. Look closely at the back of the safety vest to see the clear imprint of a horse shoe, which occurred at the time Sheila had her fall.

What you need

- List the safety equipment used in horse racing and horse riding e.g. helmet, boots, safety vest, safety stirrups, etc...

What to do

Find out and describe how each item of equipment works.

Try, think and explain

1. Injuries from riding horses are not common but when they occur they are often very severe. Should recreational riders be compelled by law to wear helmets?
2. Common sense will often prevent injuries to riders. Make a list of some simple common sense rules for avoiding injury.

School-based Activities





Punctured one lung

Six ribs broken

Badly bruised liver and kidneys

Right femur popped out of socket

Cracked two vertebrae

Caption: Sheila credits her safety vest for reducing the extent of her injuries.

Useful websites

The Monash University Accident Research Centre:

<http://www.monash.edu.au/muarc/reports/muarc103.html>

A useful website for investigating the range of equipment used for rider safety:

<http://www.dir.qld.gov.au/workplace/subjects/horseriding/safety/>

A complete guide to equine safety:

<http://www.publish.csiro.au/nid/20/pid/5130.htm>

Australian longitudinal study on equestrian injuries with and without helmets:

<http://www.blackwell-synergy.com/links/doi/10.1046%2Fj.1445-2197.2003.02707.x>



Parachutes

What you need

- A piece of very thin cloth or plastic, for example a freezer bag
- 4 pieces of thread, each 30 cm long
- An object to act as the parachutist (for example; metal washers, plastic figures)
- Scales
- Stop watch
- Tape measure

What to do

1. Cut a square with side length 30 cm from the cloth or plastic.
2. Tie a piece of thread to each corner.
3. Tie the other ends of the threads to your parachutist.
4. Use the scales to measure the mass of your parachute and parachutist.
5. Stand on a chair and hold your parachute at the centre of the cloth.
6. Measure and record the distance of the bottom of the parachutist to the floor.
7. Have a partner record the time it takes for the parachutist to reach the ground. Do this three times.
8. Repeat the above steps using different masses.
9. Repeat steps 1 to 7 using smaller squares of cloth.

Try, think and explain

1. How does the area of the parachute affect the time taken for it to reach the floor?
2. Why was it necessary to take three measurements of the time, and then find the average?
3. How does the total mass of the parachutist and the parachute affect the time taken for it to reach the floor?



Be seen, be safe

What is the best colour to wear at night so that others can see you?

What you need

- Squares of card of equal size but different colours (eg white, black, yellow, red, blue, green)
- Torch

What to do

1. Darken the room.
2. Shine the torch on the squares. Keep the torch the same distance from the squares.
3. Observe which card lights up the most.
4. Try different materials from safety clothing.

Try, think and explain

1. What is the best colour to wear at night? Why?
2. Why is it important to hold the torch an equal distance from the cards in each test?



Egg challenge

What you need

- Hard boiled eggs
- Cardboard box
- Garbage bag
- Other materials of your choice

What to do

1. Line the box with the garbage bag.
2. Design a way of dropping an egg into the box from a height of 1 metre. You can put any material you like into the box. The egg must not crack.
3. Design a way of packaging the egg so that it will survive a fall of 1 metre into the box when there is nothing in the box.
4. If at first you don't succeed, try, try again.
5. Draw your designs in the space below.

Try, think and explain

1. What were the characteristics of your successful designs?
2. Think of sports where people might fall to the ground (for example pole vaulting). How are they protected from injury?
3. Think of sports where people might be hit by hard balls (for example cricket) or sticks (for example hockey). How are they protected from injury?
4. How does a cyclist's helmet prevent head injuries?