



Post main lesson plan

Topic: Passenger Safety

Year level: 4

Title: Vehicle Safety Features Eggperiment

Duration: 60 minutes



Western Australian Curriculum links

Health and Physical Education

Strand: Personal, Social and Community Health

Sub-strand: Communicating and interacting for health well being

Content:

Ways in which health information and messages can influence health decisions and behaviours

English

Strand: Language

Sub-strand: Language for interaction

Content:

Understand that social interactions influence the way people engage with ideas and respond to others for example when exploring and clarifying the ideas of others, summarising their own views and reporting them to a larger group

Strand: Literacy

Sub-strand: Interacting with Others

Content:

Use interaction skills such as acknowledging another's point of view and linking students' response to the topic, using familiar and new vocabulary and a range of vocal effects such as tone, pace, pitch and volume to speak clearly and coherently

Science

Strand: Science Understanding

Sub-strand: Physical Sciences

Content:

Forces can be exerted by one object on another through direct contact or from a distance

Strand: Inquiry Skills

Sub-strand: Communicating

Content:

Represent and communicate ideas and findings in a variety of ways such as diagrams, physical representations and simple reports



Lesson Objectives:

- Students write a scientific report on the possible impact of not wearing a seatbelt
- Students are to use their imagination to create a futuristic safe car

Materials/Equipment and preparation:

- Print out or display on the whiteboard the [scientific method worksheet](#)
- Print out science [experiment report worksheet](#) for each student in your class
- Print out [safety car template](#) for each student in your class
- Pencil (coloured and writing pencils)



| Time | Content |
|--------|--|
| 1min | <p>Introduction: <i>In the previous lesson we put our egg car to the test. Today we are going to complete our scientific write up on what happened and why?</i></p> |
| 30mins | <ol style="list-style-type: none"> 1. Project the scientific method worksheet on the board or alternatively hand out a worksheet to students. Discuss the different elements of scientific report writing and ensure students do not use the words, I, we, you etc. <p>Activity 1: Scientific report writing</p> <ol style="list-style-type: none"> 1. This activity can be completed as a class (if students are new at writing reports), in their eggperiment groups or as individuals. <p>Extension: Have a discussion about what the hypothesis is and why it is important to include in the report writing process?</p> <ol style="list-style-type: none"> 2. <i>As a scientist it is important that we record our results even if our experiment appears to have failed e.g. our eggs scrambled or broke.</i> <ul style="list-style-type: none"> - <i>Why do you think scientists write down their experiments?</i> 3. Hand out a copy of the science experiment report worksheet to each student. Guide students through the report writing process using the prompts on the worksheet. Remind students for a scientific report they should not be using words like 'I', 'we', 'they' etc. 4. Discuss some of the student's findings and the improvements they could have made to their designs to ensure the safety of the egg passenger. 5. Extension discussion: Students should reflect on their investigation and decide if it was a 'fair' experiment (teacher may have to remind students the process of a fair experiment). |
| 15mins | <p>Activity 2: Car of the Future</p> <ol style="list-style-type: none"> 1. Students are to become futuristic car designers; using the safety car template (or students can use free hand) they are to design a safety car of the future. 2. Encourage students to be imaginative and think outside the box (maybe the seatbelts could have airbags in them or the car turns to jelly when it crashes with another object at a certain speed). 3. If time permits students can showcase their work to the whole class and explain why they have included these safety features? |
| 4mins | <p>Conclusion: <i>In our scientific report we should have concluded that wearing a seat could save your life if a crash occurs. Now not wearing a seatbelt doesn't cause a crash, but our experiment did demonstrate how dangerous it is if we don't buckle up in the car. Remember the splatted eggs on the ground? EKKKK!</i></p> <ul style="list-style-type: none"> - <i>Does anybody know any reasons why a car crash might occur?</i> - <i>What are some other things people do in a car that is dangerous?</i> - <i>Can you think of a scientific experiment that would help prove how dangerous these behaviours are?</i> |



For further road safety activities refer to the Year 4 'Challenges and Choices' resource created by School Drug Education and Road Aware (SDERA) outlined below:

- Focus Area 3: Passenger Safety page 89
- Focus Area 4: Pedestrian Safety page 115
- Focus Area 5: Safety on Wheels page 145