

2016 VCE Outdoor and Environmental Studies examination report

General comments

Students generally performed well in the 2016 Outdoor and Environmental Studies examination. Most students were able to provide a response to each question.

The following information may assist teachers and students in preparation for the examination.

- Re-writing or paraphrasing the question is unnecessary. Students should use key words or themes from the question in their answers.
- When students are asked to reference outdoor environments, it is essential that they make specific reference to the place they have listed and that they do not simply mention the environment at the beginning or end of their answer. For example, responses around environmental health indicators, such as *'We tested the water at Wilson's Prom and found it low in turbidity with a neutral pH level'*. This response could relate to a large number of environments around Victoria. A higher-scoring response would be, *'We tested the water at Wilson's Prom and found that, while dark in colour due to tannins in the water at Tidal River, it had low turbidity with a neutral pH'*. This answer provides specific reference to observations made in the environment listed. Marks are not awarded for simply re-writing the name of an outdoor environment within the response.
- Students should carefully consider the outdoor environments that they choose to use in their answer to ensure that they allow them to provide sufficient specific information in their responses.
- Students should feel confident to make judgments of an environment or aspects of it as unhealthy or particular practices having a negative impact. Often students provide good specific observations but their final judgment contradicts the information provided.
- It is important that students avoid making stereotypical generalisations such as 'farmers destroy the land'. Students must be able to provide factual and specific examples to support their statements.
- If students use acronyms to help in remembering key concepts (such as 'PII' for relationships) or generalised, commonly used terms such as 'cathedral', 'worth-ship' or 'worship', it is essential that they are able to unpack these using specific examples that relate to the context of the question and that they are able to explain their use of these terms.
- Relationships do not necessarily have to be described in terms of perceptions, interactions and impacts. This is simply a guide to help students start to form an understanding of how relationships are formed. Being able to unpack various relationships specific to the context of the question is essential.
- It is essential that students understand and know how to apply the key skills such as: 'describe', 'explain', 'analyse', 'evaluate' and 'identify', as well as others. These skills should indicate to students the length and type of response that is required. A student may provide a high-level explanation of a particular concept, but if the question asked them to 'evaluate', they would not have access to full marks as they have not addressed the question fully.

- Students must ensure that they read the question carefully and address all aspects. The importance of re-reading not only the answer but also the question should be highlighted.
- For longer questions, including the extended response, students are encouraged to make a plan to help them ensure that they address all aspects of the question. This can occur either on the same page of the question if space permits or alternatively at the back of the examination in the extra space.
- Teachers and students are reminded that the format, type of questions and content covered in the examination vary from year to year and revision should be based around the study design with strong, specific links to outdoor environments that have been visited.

Specific information

Note: Student responses reproduced in this report have not been corrected for grammar, spelling or factual information.

This report provides sample answers or an indication of what answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

The statistics in this report may be subject to rounding resulting in a total more or less than 100 per cent.

Question 1a.

Marks	0	1	2	3	Average
%	8	17	40	36	2

Students needed to select one characteristic and explain how that characteristic influenced flora and fauna prior to human settlement in Australia.

A number of students did not make clear links to flora and fauna and simply provided an explanation of the characteristic. Another common error was students not providing explanations/examples for the characteristic that they had selected or not clearly distinguishing between characteristics such as climatic variation and geological stability or geological stability and biological isolation.

The following are examples of high-scoring responses.

Example 1

Geological Stability: Upon separating from Gondwana around 50 million years ago, what is now known as the Australian continent gradually drifted north and settled roughly in the middle of the Australasian tectonic plate. The low number of fault line on the continent has led to little geological movement which has resulted in the soil not being renewed and becoming old and nutrient poor. This has meant that only tough flora species, such as the Eucalypts can survive and fauna such as the Koala eat these leaves in large amounts to cater for a lack of nutritional value.

Example 2

Biological Isolation: The splitting of the Australian continent around 50 million years ago from Gondwana lead to isolation with the country being surrounded by water. This isolation lead to the success and dominance of marsupials in Australia such as the Kangaroo and Koala as there was no major predators. The little success of other species is due to no surrounding land of the Australian continent.

Question 1b.

Marks	0	1	2	3	Average
%	7	20	43	30	2

Students needed to provide a specific example and explain how the arrival of humans (Indigenous or European) had an impact on the flora and fauna in Australia.

Most students handled this question well; however, there were a number of students who wrote about the impact of European arrival on the Indigenous people without mentioning the impact on flora and fauna. A response such as this did not attract any marks.

The following are examples of high-scoring responses.

Example 1

The arrival of the Indigenous people is thought to have contributed to the eradication of megafauna and the increased prominence of vegetation that needs fire to regenerate due to their use of fire in firestick farming practices. The megafauna were slower moving which made them easier targets for the Indigenous people to hunt. The Indigenous people also used fire to help areas regenerate and flush animals out of areas to help with hunting. This practice has led to a dominance of fauna species that rely on fire to regenerate or are fire resistant.

Example 2

The arrival of the Europeans had a negative impact as they introduced species such as sheep, foxes and rabbits which overtook the native species food. Rabbits damaged the land and eroded soils and foxes were a threat to native species such as the mountain pigmy possum. The native flora and fauna had to learn to adapt to the introduced species.

Question 2ai.

Marks	0	1	2	3	4	Average
%	11	6	21	19	43	2.8

Students needed to describe two specific management strategies that they had either observed or that could be used in the specific environment they had named.

When referencing an outdoor environment, it is important that students ensure that their examples are specific to that environment and that their response relates directly back to the environment they have listed. A number of students provided generic examples and then simply added 'at Wilson's Prom' or similar to the end of their response. Generic examples with just a place listed did not attract full marks.

Management strategies that could have been used were either those of a practical nature – for example, minimal impact practices such as boot washing – or those laid out in policy. Students on the whole handled this question well and were able to describe either form of management strategy well.

The following are examples of high-scoring responses.

Example 1

While hiking in the Otways National Park we had to wash our boots at boot wash stations along the way. This was to help prevent the spread of cinnamon fungus throughout the area. We also had to ensure that we carried all our rubbish with us as there were no bins to dispose of rubbish. This is to help prevent animals from being attracted to bins and becoming reliant on humans visiting the area for their survival. It also helped make us more aware of the amount of packing on food.

Example 2

One management strategy that I saw at Phillip Island was boardwalks. The boardwalks were built over the penguin burrows to allow people to observe them without any damage. Another management strategy I saw was signage that directed people in the national Parks to take rubbish out and not take anything away from them.

Question 2aii.

Marks	0	1	2	3	4	5	6	Average
%	13	4	12	16	20	17	18	3.5

Students needed to analyse the effectiveness of the strategies they described in part ai. As a part of their analysis students needed to be able to look in detail as to whether or not the strategy is or could be effective and what factors contribute to this.

The following are examples of high-scoring responses.

Example 1

Bootwash stations: The bootwash stations have been implemented to try and prevent the spread of the cinnamon fungus. They are only effective if people accessing the area use them correctly and understand the reason behind them. It is not possible to enforce the use of them as it is hard to know when groups are moving through the area. Providing education about these stations at campgrounds and at the site of the station will help educate people about why they are necessary and how to use them correctly.

Carrying out rubbish: Carrying out rubbish is an effective way of preventing local wildlife from becoming dependant on the rubbish and food scraps of humans. By providing education to the users of the area about why there are no bins and the negative effective human food packing and waste can have on local wildlife should encourage people accessing the area to do the right thing. Advertising the 'Carry In, Carry Out' strategy in the local stores that people may access prior to visiting the area will help make people more aware and be better prepared to do the right thing.

Example 2

The boardwalks that were built over the penguin burrows at Phillip Island were very effective as they allow tourism to occur but without damage to the penguin homes. This allows the penguins to live without interruption from humans meaning it is more likely they will continue their 'show' at the penguin parade.

The signage at Phillip Island in the National Parks is effective for the environment as people are less likely to be destructive and leave rubbish, which can harm native wildlife. This ensures the natural environment is being protected for the future.

Question 2bi.

Marks	0	1	2	Average
%	49	22	29	0.8

Students needed to be able to identify an example of environmental legislation and describe one way that it helps, or could help, to sustain the outdoor environment identified.

This question seemed to challenge a large number of students as they were unable to list a specific piece of legislation but were able to describe how actions enforced or carried out as a result of the legislation helped to sustain the environment. The key skill in Unit 4, Area of Study 2 requires students to be able to 'describe specific legislation and agreements...'

The following are examples of high-scoring responses.

Example 1

National Parks Act: The National Parks Act prohibits people bringing domesticated animals, such as dogs and cats into the park. This helps protect wildlife in the Otways National Park from being chased and attacked by these animals, therefore creating a safer natural habitat for the native animals.

Example 2

No Fishing in the Marine National Park: No fishing in the Marine National Park at Phillip Island helps to protect endangered and rare species that are under threat. This will help them to breed and increase in number for the future.

Question 2bii.

Marks	0	1	2	Average
%	54	23	23	0.7

Students needed to describe one problem, or potential problem, with the implementation of this legislation in managing the outdoor environment.

The following are examples of high-scoring responses.

Example 1

One problem with the implementation of this part of the National Parks Act is that it can be difficult to enforce as Park rangers can't be everywhere. Also for people living on the boundary of the Otways National Park this can be frustrating as they may want to walk their dogs and won't be able to which will limit where they can go. Without enough Park rangers to enforce the legislation it can be pretty meaningless.

Example 2

Due to the Marine National Park being so big it can be hard to monitor practices such as fishing. This can mean people will still fish and protected species may still be at risk if it is undertaken. The legislation may need to be monitored frequently to ensure full protection.

Question 2ci.

Marks	0	1	2	Average
%	16	35	49	1.3

Students had to select a sustainable action and describe how it has been used, or could be used, in their selected outdoor environment.

Students generally handled this question well, but some responses lacked specific detail on the action or included a description without referencing the environment.

The following are examples of high-scoring responses.

Example 1

Landcare has been implemented in parts of the Otways National Park and surrounding areas through volunteer community groups removing weed species and replating native species. Landcare has also helped with sand dune stabilisation in the area.

Example 2

At Phillip Island, there are wind turbines that produce energy and electricity from the natural power of the wind. This is renewable energy as power is being made naturally in the environment.

Question 2cii.

Marks	0	1	2	3	Average
%	16	24	37	23	1.7

Students had to analyse the effectiveness of this action in sustaining this or other outdoor environments.

The following are examples of high-scoring responses.

Example 1

Landcare is effective in sustaining the Otways National Park as it has helped native flora and fauna through the removal of invasive pest species that were taking over flora and destroying native animals habitat. However, it does rely on volunteers and this can cause issues if the volunteers get sick of always helping out or unable to continue doing this work. Work would have to also be done to ensure people continued to help out and new people joined the group.

Example 2

Using wind turbines is effective for the environment as they produce no greenhouse gases. Implementing the turbines in other outdoor environments would reduce the amount of Co² emissions being released into the atmosphere allowing the environment to be healthy and sustainable.

Question 3

Marks	0	1	2	3	4	5	6	Average
%	3	3	11	18	32	22	12	3.9

Students needed to use the scenario material provided and analyse how each group's relationship with the environment would change if the construction of the dam were to go ahead.

Students generally handled this question well. The most common error was students discussing the relationship once the dam was constructed.

The following are examples of high-scoring responses.

Example 1

Recreational Users: Currently view the environment as a place to escape to and explore. This helps them feel connected to the environment and encourages them to look after it so they can continue to use it. If the dam construction was to go ahead, the recreation users may feel disconnected from the environment and stop visiting the area as they can no longer participate in the activities they once did. However, depending on the type of dam, they may still be able to access the area and participate in different activities.

Farmers: view the land as a resource as it provides a livelihood for them. Currently they don't have a reliable water source which is making it difficult for them to run their farms effectively. By constructing the dam, the farmers relationship with the environment will improve as they will be able to look after their land better. However, it may lead to the overwatering of some areas which could contribute to salinity.

Example 2

Recreational users: Before the construction of the dam, recreational users would have seen the river as a place to have fun, maybe even camp by. If the construction was to go a head, they may change their perception as recreational activities may not be allowed and they may be less likely to visit the area. This will have a negative impact on the environment because they are less likely to care about the area and or participate in conservation practices, leading to possibly a damaged area.

Farmers: Before the construction of the dam, farmers would have seen the river as a place to conserve but also use as a resource. They would have used practices that help to manage the amount of water used. After the construction of the dam, they would see it as a resource and by knowing they would have an unlimited supply, managing the water would not be a priority. This could have a negative impact as the water supply may decrease and threatened species living in the dam.

Question 4a.

Marks	0	1	2	3	4	5	6	7	Average
%	3	1	3	7	12	17	28	28	5.3

Students needed to select a specific outdoor environment to refer to in their response. They then had to select three environmental indicators and evaluate the level of health of this specific environment.

Students were generally able to correctly describe how particular indicators could be used to determine the health of the environment but some did not link it to the specific environment listed or just provided generic examples. It is essential that students can give specific examples related to the environments that they have visited or studied throughout the year.

The following are examples of high-scoring responses.

Example 1

Environment: Alpine National Park – Bogong High Plains area

The water quality and adequacy on the Bogong High Plains was sufficient. It was clear and free flowing and was able to be drunk without treatment. The sphagnum bogs help filter the water as it makes its way into the creek systems.

The soil quality and adequacy in the areas of the High Plains that we visited was to good levels. The ground was not compacted meaning that we could easily put up our tents and there was sufficient ground cover to protect the soil from erosion. The vegetation surrounding us looked healthy and was abundant and varied indicating that the soil was healthy as it was able to sustain a variety of plant life.

The number of pest and introduced species that we observed was minimal. In the lower areas of the park we did see some blackberries along the river but these had recently been sprayed (a sign informed us of this) and we did not see any introduced fauna. In the areas we were hiking in we did not see any introduced species even when trying to spot rabbits and foxes at night.

These three indicators demonstrated to us that the Bogong High Plains is in good health and that the threats present are being addressed by Park rangers.

Example 2

Environment: Victorian Alpine Area – Falls Creek

Air: Positive – the quality of air was good as it was clear and you could see into the distance.

Negative – where the main resort was, the air smell of fumes from the transportation. Overall – even though the air did smell where the main resort was, up further on the mountain it was fresh and clear, indicating a healthy environment.

Soil: Positive – the soil felt relatively soft and looked high in nutrients. There was also a variety of plants.

Negative – in some areas the soil was not high in nutrients as there was hardy plants growing.

Overall – although there was plants that did not need soil high in nutrients, there was still a high variety of flora, indicating a health environment.

Biodiversity: Positive – there was plenty of native species of both flora and fauna such as wallabies and the mountain ash.

Negative – there was introduced species that threaten native species such as foxes

Overall – the Alpine area of Falls Creek indicated a relatively healthy environment, and with the implementation of some strategies, it can help to minimise any negative outcomes.

Question 4b.

Marks	0	1	2	3	4	Average
%	7	7	31	24	31	2.7

With reference to the same environment and their evaluation from part a., students had to explain the importance of healthy outdoor environments for society and an individual's physical and emotional wellbeing.

A number of students only linked their response back to the environment and did not reference society or the individual. Often these answers were of a good standard but as they did not address the question, they could not be awarded marks.

The following are examples of high-scoring responses.

Example 1

The good health of the Bogong High Plains make it an enjoyable place to visit. Society benefits from this environment being healthy as it is a place where research can take place and education, such as our school group visiting to learn more about the natural environment. Individuals can benefit as it provides a terrific escape from day to day lives and is a place where we can recreate either through hiking in the summer or skiing in the winter. This contributes in a positive way to our health and wellbeing as it gets us into a clean environment and gets us more active. Research and education will help preserve this environment for future generations.

Example 2

The Alpine area of Falls Creek is extremely important for society as it provides an economic boost for surrounding towns and allows more employment opportunities. Tourism increases, allowing businesses to thrive, supporting local people. Falls Creek is also important for a person's physical and emotional wellbeing as it offers activities such as skiing or snowboarding. It also has resorts that allow people to relax and escape everyday life, improving emotional and physical wellbeing.

Question 4c.

Marks	0	1	2	3	4	5	6	7	Average
%	3	2	6	10	17	21	20	21	4.8

Students had to analyse how two environmental threats could or have had an impact on their selected environment.

Students generally handled this question well. However, students who did not reference society or individuals and just focused on the environment in part b. often wrote about threats in part b., which limited the scope of their response to this question.

The following are examples of high-scoring responses.

Example 1

Climate change: Climate change in a real threat for the Bogong High Plains. Most of the flora and fauna rely on cooler temperatures and the snow season to survive. With shortening snow seasons and warming temperatures flora is being threatened which is then in turn impact the habits of some of the endemic fauna such as the mountain pygmy possum. While there is some evidence that some species will be able to adapt to the gradual change, a number will not be able to so therefore, decreasing the biodiversity of the area.

Introduced species: Introduced species are an ongoing threat to the Bogong High Plains. A lot of work has been done to eradicate introduced species such as blackberries, rabbits and foxes and while this has been effective, if this work were to stop numbers would quickly jump. We witnessed first-hand how blackberries can choke creek and river systems while down at Mountain Creek and prevent and overtake the growth of native flora species. Rabbits impact of the low lying flora by eating it down to the roots, exposing the soil and as a result increasing erosion. Foxes prey on small marsupials, killing off local populations. If the fox population was to increase it would place significant threat on these populations, some of which are already in low numbers.

Example 2

Climate Change has had an impact and will continue to on the Alpine areas in Victoria. The warmer weather means less snow as it melts. This means they have to use the snow making machines, which have a negative impact on the environment as they use a lot of power. Climate change also affects the native species, for example if it is too hot, they have to make their way further down the mountain to find food and water.

Urbanisation in Falls Creek has had an impact on native species. Land clearing occurs to make way for new resorts, which results in damage to habitats and native flora and fauna. If this practice continues, many native species could become endangered in the future.

Question 5a.

Marks	0	1	2	Average
%	17	30	52	1.4

Students needed to explain what is meant by the term 'sustainable development'.

Some students simply provided a definition without any explanation. Some responses lacked detail and could not be awarded full marks. Students must understand the level and type of response required through the key skill and respond appropriately.

The following are examples of high-scoring responses.

Example 1

Sustainable development is generally thought to mean development that doesn't deplete resources quicker than what they can naturally replenish. However, some people consider it to be a contradiction in terms as sustainable means to be maintain at a certain level and development means to change.

Example 2

Meeting the needs of the current society without compromising the needs of the next generation. To develop and grow as a society while ensuring the needs of the next generation is met. e.g using renewable energy.

Question 5b.

Marks	0	1	2	3	Average
%	6	16	48	29	2

Students needed to refer to the stimulus material, make a judgment as to whether or not they agreed with the statement and then justify their response.

Students responded well to this question, and the majority of students were able to state their position and provide a strong justification.

The following are examples of high-scoring responses.

Example 1

I agree with Turner's statement because if something cannot be renewed, it can't be used sustainably. As Turner states, any use of a non-renewable resource will lead to that resource running out sooner or later regardless of how carefully it is used. True sustainable development doesn't deplete resources quicker than what they can be renewed. So if the resource can't be renewed it shouldn't be used.

Example 2

Yes, I agree with Turner's argument. He is suggesting that people are saying we need to be more sustainable, however to be sustainable we are still using resources. The term can contradict itself because we do need these resources to live, however we will exhaust them for the future.

Question 6a.

Marks	0	1	2	3	4	5	Average
%	10	7	19	21	24	20	3

Students had to identify two environmental conflicts and then analyse the use of direct action in these conflicts.

High-scoring students provided an accurate description of the use of direct action in their selected conflicts and either provided an analysis overall or an analysis for each conflict separately. Either approach was acceptable.

Low-scoring students often could only answer in relation to one conflict or provided incorrect information in relation to the conflicts they had selected. Their information about the conflict was usually generalised and more of a description based on the information given in the question.

The following are examples of high-scoring responses.

Example 1

Conflict 1: Franklin River Conflict 2: Grazing in the Alpine National Park

In the Franklin River Campaign direct action was used in a variety of ways. Blockading of the river to prevent construction crews and materials from entering the work site as well as street protests and rallies got the conflict into the public's eye and national media. This made people feel sorry for those trying to protect the river and encouraged even more people to join the cause of trying to save that environment. This then helped make the conflict a political issue and gained support for those wanting to protect the environment.

Mountain Cattlemen used direct action in the form of marching through the Melbourne CBD to Parliament House with their horses and some cattle. This caused major disruption in the city and certainly put their conflict in the public spotlight, however, it was in a negative sense as people who lived or were trying to commute through the area were disrupted and became frustrated and annoyed with the protestors. This, combined with information and education provided by the VNPA swayed the public to support the grazing ban.

Example 2

Conflict 1: Cattle grazing Conflict 2: Franklin River Campaign

Cattle grazing: the Victorian National Parks Association used direct action by dressing up as cows and protesting. The use of this was successful as it got more people supporting their view that cattle grazing should be banned. The Mountain Cattleman's association also used direct action through a protest on horses to Parliament house in Melbourne.

Franklin River Campaign: the Tasmanian Wilderness Society used direct action through the use of a human blockade and gained support by showing the importance of the river. Their work was successful as they won they campaign preventing the dam from being built.

Question 6b.

Marks	0	1	2	3	4	5	6	Average
%	34	11	14	13	12	8	8	2.3

Using the conflicts identified in Question 6a., students were required to evaluate the processes that decision-makers used in resolving the two conflicts.

A large number of students struggled with this question. Many students evaluated the methods from part a. but others did not link decision-making processes with specific conflicts or did not have accurate information in relation to the conflicts that they had specified within the answer. For example, a number of students referred to VEAC as being key in the decision-making process of the Franklin River Campaign or stated that the Tasmanian government took the federal government to court to fight for the protection of the environment. It is essential that students have accurate knowledge around the conflicts that they study.

The following are examples of high-scoring responses.

Example 1

Decision makers tried a number of processes in the Franklin river conflict. This initially included a referendum and legislation lead by Tasmania Government at the time. These were ineffective as the people felt they were not given a fair choice. It was not until Heritage Listing was sort and the Federal Government took the Tasmania Government to the High Court to enforce this listing that the conflict was resolved. This was therefore effective as it meant there was a clear and final enforceable decision made.

The Cattle grazing conflict has been through a number of processes where legislation has been made either banning the conflict or allowing it to go ahead in certain areas for research purposes. The reason for these changes was due to changes in government and the new government changing legislation and policy. This clearly showed that this was not an effective process to resolve this conflict. In 2015, the new government reinstated the ban but also amended the National Parks Act closing the loop hole for grazing being allowed to continue for research purposes. Other research shows that grazing is detrimental to the environment which helped the new government get their changes through. The new governments approach in looking to close the loop hole for further changes was effective as it now means grazing is permanently banned from the Alpine National Park.

Example 2

Cattle grazing: the legislation was passed in the supreme court that cattle grazing should no longer be allowed in the Alpine Area. The issue was taken to court by the State Government to win the conflict against the Mountain Cattlemen's association.

FRC: A referendum was held by Tasmanian Government which was not successful as many voters wrote 'NO DAM' on their ballot paper as it was not an option. A legislation was passed later, making Franklin River World Heritage Listed for its environmental significance. The Tasmanian Government tried to fight this, taking the cause to the High Court, where the Federal Government won in ruling that the area is too important to dam.

Question 7a.

Marks	0	1	2	3	4	5	6	Average
%	2	2	8	16	27	24	21	4.2

Students had to select two items from the list and then analyse how the selected items influence societal relationships with outdoor environments.

Most students were able to at least discuss how the selected items influence relationships. Again, it is essential that students understand the key skill within the question and respond appropriately in order to ensure that they have access to full marks. Some students focused only on environmental impacts and not on the societal relationship, highlighting the importance for students to ensure that they have read and understood the question correctly.

The following are examples of high-scoring responses.

Example 1

Mobile phone: The increased access to and use of mobile phones has influenced societal relationship with outdoor environments in a number of ways. People now feel more safe when participating in outdoor activities knowing that help is only a phone call away. This gives some people a false sense of security as they don't realise that help may take hours to reach them depending on their location or that they may not have reception on their phone or their phone may go flat depending on how long they are out there for. Having access to a phone may also decrease a person's experience as they are still checking their phone for messages so aren't really escaping or paying attention to the environment that they are in so are not appreciating it fully.

Ski Lifts: Skis lifts have increased the participation in downhill skiing as it is now easier. This has helped more people access the outdoors and enjoy spending time there, increasing their appreciation for this area. However, due to the higher number of people participating, people can't connect with the environment as it is crowded but has also been significantly altered to accommodate the increased number of people.

Example 2

Mobile phone influence societal relationships by discluding our connection with the outdoors. They impact our connection by taking away our natural thoughts while we are in the outdoors. They also reduce our capabilities to navigate due to maps on our phones which can also make us loose a sense of connectivity.

Four-wheeled drives allow people to experience the outdoors in a fun and adventurous way. They can allow us to have a connection with the outdoors by allowing individuals to believe it is there for fun and recreation purposes.

Both of these items can have a negative impact on our relationship with the outdoors as they can take our appreciation away from the outdoor environment.

Question 7b.

Marks	0	1	2	3	4	Average
%	38	10	19	19	15	1.7

Students needed to evaluate how one of the items they had selected in part a. affects a specific environment that they had visited or studied.

A number of students continued to discuss or evaluate societal relationships in this response and did not evaluate environmental affects or link the selected item to a specific environment.

The following are examples of high-scoring responses.

Example 1

We visited Falls Creek both in the summer when the resort was not really in use and again in winter when the resort was in full function. In summer, the environmental impact of the ski lifts was obvious to see with cleared areas, soil compaction and erosion throughout most of the resort area. In the winter, this is all covered by snow so most visitors will not realise this impact. Both the cleared areas in the summer and high human population in the winter contribute to habitat fragmentation. While some conservation efforts were being undertaken to repair and try and minimise damage, the affect the ski lifts have on the environment is huge.

Example 2

Four-wheel driving negatively affects the Alpine area in Victoria. When we visited Falls Creek, we took note of the tracks and how the four-wheel drives damage the tracks and roads through erosion and compacting the soil. They also effect native vegetation by driving over habitats that could effect survival rates of some species in Victoria.

Question 8

Marks	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Average
%	16	1	3	5	5	5	7	7	7	8	8	7	8	4	3	4	7.1

Students needed to select an outdoor environment that they had visited or studied and then identify three historical events that have affected that environment. Students needed to identify the correct time period and accurately describe each event while making specific links to the environment that they had identified. They then had to explain how the human relationships changed throughout this time and discuss the relationships that humans now have with this environment.

The majority of students were able to respond to some level. A number of students did not sufficiently discuss current-day relationships with the environment or link their answer strongly enough to an outdoor environment. The term 'historical events' also seemed to confuse some

students. This is a term from the key skills in the study design. Students should become familiar with a range of terms and ways of describing various elements of the study.

Some students discussed environmental conflicts or current events, but these responses did not attract any marks. Some students used the arrival of Indigenous people as well as European settlers. This was acceptable and most students who took this approach responded well with accurate, relevant and specific information.

The following are examples of high-scoring responses.

Example 1

Environment: Greater Bendigo Region

Event 1: First European Settlers

Event 2: Increasing Population (Gold Rush)

Event 3: Industrialisation

The First European Settlers in what is now known as the Greater Bendigo Region were sheep farmers who when exploring looking for better grazing grounds discovered areas near Mt. Alexander that met their needs. This was in the 1830's. In this area they had access to water from what they called the Bendigo Creek (named after an English boxer). They established their sheep runs on the Dja Dja Wurrung's prime hunting ground. The first settlers relationship with the land was one of it being an adversary and a resource. They were struggling to survive and establish their farms and at times felt that they were fighting against the environment. They viewed the Dja Dja Wurrung people as a threat and killed them if they thought they were threatening them or their livestock.

The story goes that the wives of some of the sheep farmers found the first pieces of gold in the Bendigo area in the creek while washing their clothes. This was in the early 1850's. The word quickly spread which saw an influx of people to the Bendigo area. As more discoveries were made, mining quickly become more invasive and shifted from gold panning to the digging of shafts and larger scale projects. This destroyed the environment and there was no thought into conservation or any desire to protect the environment. The focus was on get rich quick and destroy anything that laid in the way. Once they had stripped an area, they simply left and moved onto the next. The environment was nothing more than something to be used and abused.

During the time of industrialisation, the city of Bendigo began to grow. People in the area now had money, so the area was flourishing. By the 1890's there was a fully functional train and tram network running, architectural projects being undertaken with more than 80 stately buildings being constructed, a number of which still stand today. While still viewed as a resource, people started to care more for the environment as they wanted to live in a beautiful area. Parks were constructed containing a mix of native and introduced flora species and mine shafts that were no longer in use filled in and native forest encouraged to grow. Due to the wide spread land clearing, the majority of the forest around Bendigo is still considered fairly new as it is only around 100 years old.

This increase in appreciation of the natural environment has continued to the present day with now Bendigo being surrounded by National Park and various parks and reserves throughout the region being restored and revegetated with native species. Areas such as Crusoe Reservoir have been improved to allow better access for the public. Relics throughout the area are signed so visitors can understand how the area was once used. It is now a popular recreation area where people can come and walk and run and swim in the natural environment. This has led to people gaining a great appreciation of the environment and developing a greater level of respect so are now looking after it better than ever.

Example 2

Environment: Phillip Island

Event 1: Increasing Population

Event 2: Industrialisation

Event 3: National Building

Increasing population: this event was around the early 1800's to the 1880's. During this period, more people arrived in Australia due to the gold rush and an opportunity to start a new beginning. The people feared the Australian land as it was different to Europe. At Phillip Island, the first land sale was around 1840 – 1845 and more people began to move as there was land for farming. Farming practices began to occur, which had a negative impact on the island due to land clearing and destroying many habitats. Introduced species were also brought to the island such as sheep and land for native species decreased. The outdoor environment was negatively impacted during this time as no one saw the land to be protected.

Industrialisation: this event occurred from around the late 1800's to early 1900's. It was a time when people began building more efficient equipment and larger infrastructure. People's perceptions began to change as they realised they could begin to earn an income off the resources the land provided them with. Practices such as farming occurred at Phillip Island, but on a much larger scale, which meant more land was being destroyed as more and more people were setting up farms. The chickory kiln opened in Phillip Island and business began to increase. Tourism also increased due to the penguins being discovered. This had a negative impact on Phillip Island as more people were visiting and put a strain on the environment.

Nation Building: occurred around the beginning of the 20th Century (early 1900's, around 1901). This was when people realised they could actually build a Nation out of Australia. People also began to realise the impacts they were having on the environment and the first National Parks began to open. This had a positive impact on the environment as species began to be protected for the future. In Phillip Island, the penguin's became part of a protected area and people realised they needed to protect them. A bridge from the mainland to Phillip Island was also constructed, which has a negative impact on the environment due to increased tourism.

Human's today have a very strong relationship with the outdoor environment of Phillip Island. Conservation practices for the Koala's and penguins are implemented by the Koala sanctuary that we visited. Human's now see the environment as a place to protect, which is reflected by the Marine National Park in Phillip Island. This has many positive impacts such as species can be protected for the future to sustain a rich biodiversity in Phillip Island.