

**A**

**Avalanche's,**  
**In Whistler B.C.**

Avalanches are a regular occurrence in Whistler, British Columbia, weather they are small or very large scale. Avalanches are one of the greatest threats that ski resorts face in mountainous areas. When snow falls it packs together in layers and bonds form between the snow crystals to form one large layer. Since every time it snows the snow is a little different, the newest layer that has just fallen might not stick to the layer before. This is common when there is a warm day and the top layer of snow melted and then that night froze again to form a icy layer. When the new snowfalls it will not stick to the layer of ice this is one main element in the creation of an avalanche.

Whistler has all of the components that it takes to create an avalanche.

Whistler has very steep slopes and lots of snow. They get many warm days that the temperature will rise enough to melt the top layer of snow. Once the snow has built up on the weak layer and is ready to slide Whistler has the final key elements. First they have lots skiers, when the skiers hit the weak spots on the hill the avalanche will be triggered. The next thing that the avalanche needs is an area that nothing is blocking the way so the snow can

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pick up speed and keep a steady momentum. In whistler these areas are usually scene as ski hills that were cleared because they were some of the better ski areas. Avalanches kill many people every year in British Columbia, because there is not too much you can do to escape one, considering they can move up to 50 m/sec down a hill, and destroy anything in their path. In Whistler there are many options to prevent an avalanche from causing much damage and killing many innocent skiers. Whistler would benefit form many of these methods, however I would suggest that the community should train teams of advanced skiers to use explosives to prevent avalanches. With the use of explosives the teams could plant them in areas where the conditions for an avalanche are great. Once all of the teams of skiers have cleared the area the charges will be set off, this will create controlled avalanche that will have less power and will be in an area that regular skiers are not aloud to enter. One of the other plans that the areas ski hills should put in to action would be using the explosive's teams to do a safety ski every morning. On these runs the ski patrol would look for areas that are a possible risk and check the layers of snow for the chance of avalanche conditions. All of these ideas are possible prevention ideas and all would help to lower the chance of an avalanche occurring, but you still need a back up plan for if the avalanche ever did occur. Whistler should design a

## LOW LEVEL 2

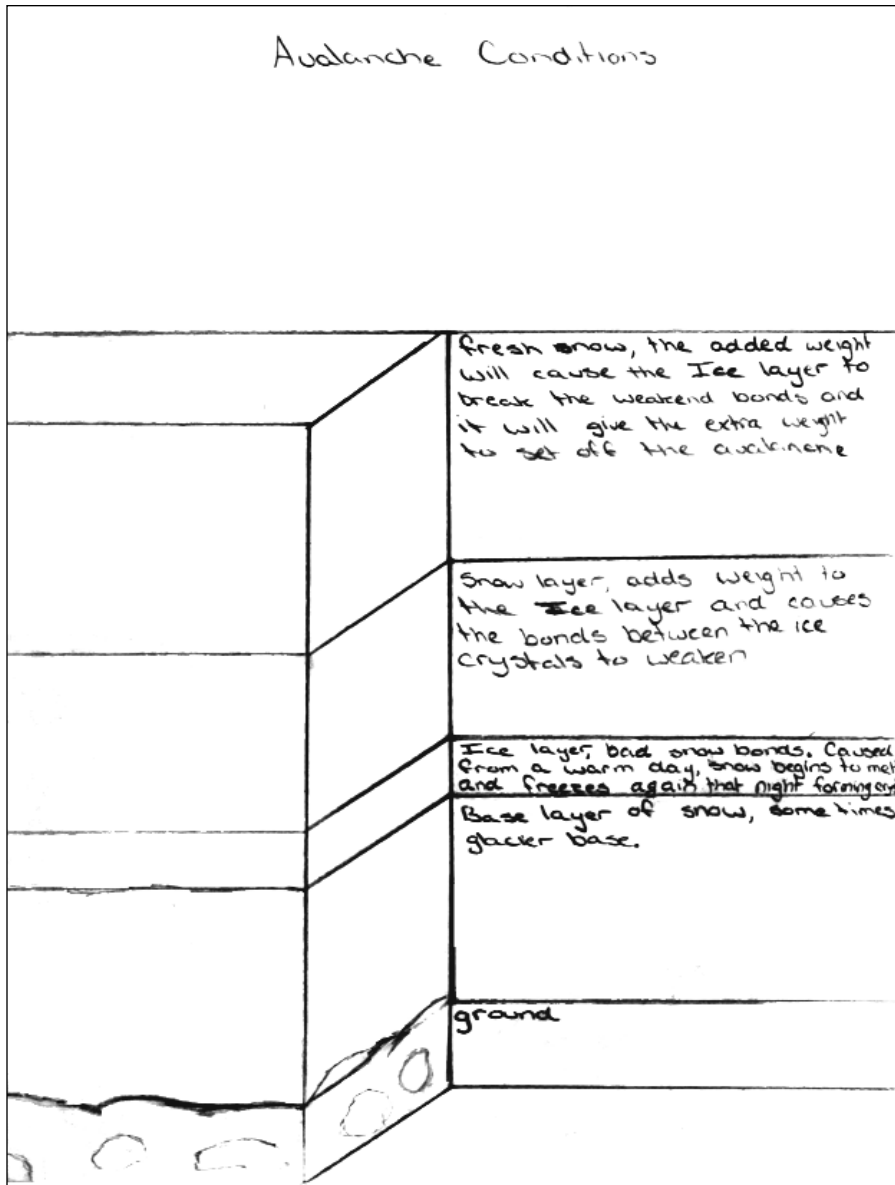
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checklist to follow if the Avalanche ever did strike the community. The list would have the highest priorities at the top of the list and would decrease in importance towards the end of the list. The town would also have a committee to plan and organize what will happen first and who will do it. There will be book put out to each resort and business. This book would have instructions of what to do to prepare and survive an avalanche. Ski resorts would report to the committee, telling them how many people were estimated to be on the hill at the time of the avalanche. One of the highest priorities on the list would be to go to send search and rescue teams to recover the victims. These would be just regular town people who took a course offered through the town. This course would train the people how to operate as a team and perform search and rescue operations. The town should also invest in trained search dogs to help locate buried people. The next thing would be to get crews to clean the roadways and railways. Whistler would achieve this task by leaving an emergency contract with one of the local construction companies. If there was ever an avalanche the construction company would immediately send all the equipment with their operators, necessary to remove the snow as soon as possible. The checklist would continue on in order of importance. The town would soon be cleaned

D

up and the regular avalanche patrol would continue checking the slopes for areas that meet the criteria for an avalanche.

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References

Perla, R. I. (1997). Avalanches. In The 1998 Canadian & World Encyclopedia (no pagination).

Unknown. (2000). White Death. Retrieved May 17, 2002 from the world wide web: [www.whyfiles.org/105avalanches/3.html](http://www.whyfiles.org/105avalanches/3.html)

## LOW LEVEL 2

**Teacher's Notes****Knowledge/Understanding**

- The student identifies and describes the mechanisms of change as they apply to avalanches at Whistler, British Columbia, with some accuracy. Although the student includes a substantial discussion on the mechanisms of change that lead to avalanches (e.g., “When the new snowfalls it will not stick to the layer of ice this is one main element in the creation of an avalanche”), he or she does not include enough specific detail about the chosen location (e.g., temperature, snowfall, numbers of skiers).

**Thinking/Inquiry**

- The student provides advice on short-term preparation that is somewhat effective. Although the student presents some practical suggestions (e.g., “train teams of advanced skiers to use explosives to prevent avalanches”; “do a safety ski every morning”), he or she does not provide advice on how officials could help the individual skier or local citizen to prepare. In addition, the student does not distinguish clearly between short- and long-term measures.
- The student provides advice on long-term preparation that is somewhat effective. Suggestions are practical and are geared to the Whistler area (e.g., “leaving an emergency contract with one of the local construction companies”; training search-and-rescue teams), but long-term measures are not clearly distinguished from short-term measures, creating some ambiguity.
- The student provides steps for dealing with the aftermath of a disaster that are somewhat useful. The suggestions are practical (e.g., implementing the steps in a prioritized checklist that includes sending out search-and-rescue teams), but they are incomplete: the student does not include steps for dealing with potential casualties or with the economic costs of a serious avalanche in a popular tourist destination such as Whistler.

**Communication**

- The student writes a report that is limited in clarity and logical organization. Although information and ideas are organized in a somewhat logical sequence, the lack of paragraph structure detracts significantly from the clarity of the report. Clarity is also occasionally limited by errors in spelling and awkward constructions (e.g., “In whistler these areas are usually scene as ski hills ...”).
- The student uses a voice and language that are appropriate for the audience to a limited degree. Although the student uses some appropriate terminology (e.g., “the use of explosives ... will create controlled avalanche”), there is no indication that he or she is addressing an audience of government officials.
- The student provides a visual that supports and enhances the written information to a limited degree. Although the visual is designed to support the discussion of mechanisms, it does not illustrate effectively how an avalanche is formed.

**Application**

- The student evaluates the impact of the hazard on the local population with some effectiveness. The student describes the local impact accurately but in too general a way (e.g., “Avalanches are one of the greatest threats that ski resorts face in mountainous areas”; “Avalanches kill many people every year in British Columbia”). The student addresses neither the effects that an avalanche would have on tourism in Whistler nor the financial implications involved in preparing for or dealing with an avalanche in such a popular area.

**Comments**

This work is representative of a low level-2 performance. The student demonstrates some degree of achievement of the expectations in the Knowledge/Understanding, Thinking/Inquiry, and Application categories of knowledge and skills. However, in the Communication category, the student demonstrates a limited degree of achievement – i.e., achievement that is more characteristic of level 1.

The result is a somewhat effective report that lacks a proper organizational structure and an appropriate voice for its audience.

**Next Steps**

In order to improve his or her performance, the student needs to:

- explain in more detail why Whistler is geographically prone to avalanche activity;
- maintain a focus on Whistler throughout, and elaborate on the effects that an avalanche would have on the community;
- provide additional recommendations for short-term preparation for a possible disaster;
- provide visuals that more clearly and more fully support the written text;
- address the report to the intended audience and adopt a more serious tone;
- organize the report into paragraphs;
- proofread carefully to correct errors in grammar and spelling, paying close attention to errors involving homonyms (e.g., weather/whether, scene/seen, allowed/aloud).