

## 35: CSI weather

### teachers' notes

- 1) When you set this work, you could focus on just one question, or on every second question, or ask different students to answer then discuss different questions.
- 2) Feel free to treat these questions as a discussion, rather than a written exercise.
- 3) Flesh out the examples. Use specific locations that your class may have visited; add more clues about the weather; and/or make up a whole lot of details about the “suspicious circumstances.”
- 4) Above all, encourage students to put their detective caps on, and think forensically.
- 5) These answers have a bias towards south-eastern and south-western Australia. The answers could be very different if the locations were in northern Australia.

### answers

#### investigation scene 1

The weather would probably have been cool, but probably not freezing (depending on the elevation).

#### discussion

Being late autumn, the day would have been warm, but not hot. The absence of cloud, however, would have resulted in a gradual lowering of the air temperature over the six or so hours since sunset. Some of the warm air, however, would have drifted up to the ridge before radiating into outer space, meaning that it would have been warmer on the ridge than down below. Being north-facing, the cooling process would have been further slowed down, because any solid objects like rocks would have first absorbed heat and then gradually re-radiated it.

#### significance

Suzie McFloozy should have been able to survive the cold outside her tent, even if she was wearing light clothing. Additionally, being a clear night, there would have been at least starlight, enabling her to see around her, even without a torch. All this means is that - if in fact she did come to a gruesome end - it would be less likely to be as a result of environmental factors.

#### investigation scene 2

The weather would probably have been cool, but not freezing (depending mainly on the elevation).

#### discussion

As June 22 is the winter solstice, it would have been a warmish but certainly not a hot day. The presence of cloud and absence of wind would have prevented the temperature from cooling a whole lot, even at somewhat higher altitudes, especially given that it was still relatively early in the night.

#### significance

Hypothermia can be ruled out because of the relatively mild conditions (and because hypothermic people don't scream). As a result of the cloud cover, however, it would have been a dark night, and a fall cannot be ruled out.

#### investigation scene 3

The weather at that time of night would have been very cold.

#### discussion

It was late winter. Being cloudy, the day before was probably a cold day Whatever heat there was radiated

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## footprints answers

away into outer space over a period of time, due to the lack of blanketing cloud and the nine hours or so that had elapsed since sunset. There are a number of other factors, however, that may have made a difference, such as aspect, altitude and latitude.

### **significance**

Being so cold and being so late, people would not be likely to be up and about voluntarily (unless they are up to no good). The shots seem all the more menacing because no-one would have been engaged in recreational shooting after dark (except during duck opening). It is also unlikely that there was any kind of accidental discharge, firstly because there were *two* shots and secondly because people don't normally handle guns at 3.11 in the morning. Foul play should be suspected.

### **investigation scene 4**

The weather would have been cold, probably very cold.

### **discussion**

Being overcast and being three weeks before the spring equinox, 1 September would already be cold. Because the clouds cleared, and because it was windy, the temperature would have cooled down even more as the night progressed.

### **significance**

These are not circumstances in which honest citizens would normally venture out. The campers would be right to feel a little anxiety.

### **investigation scene 5**

The weather would have been at least warm, possibly hot and probably muggy.

### **discussion**

January being one of the hottest months and a sunny day, it would have become warm or even hot during the day. The cloud would have trapped the heat from the day and the northerly breeze would have also been warm. In southern Australia, it usually takes a couple of days of sunny skies to produce hot weather, so it depends a little on what part of the weather cycle these conditions belonged to.

### **significance**

Regardless of the weather, the campers should have been very alert, if not alarmed. Crimes of various kinds are more likely to take place, at night at least, when conditions are pleasant. (Villains do not like to venture out in bad weather.)

### **investigation scene 6**

The wind would have been blowing from the south-west or even the south after it changed.

### **discussion**

As high pressure systems (which are anti-cyclonic) move away to the east, and low pressure systems move in from the west, wind speed intensifies and north-westerlies give way to south-westerlies.

### **significance**

Scoop McSnoop needed to land his aircraft *into* the wind by descending from the north-east. He would have been well-advised to land sooner rather than later, because these sorts of wind changes are often associated with foul weather.

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### **investigation scene 7**

Visibility would have probably been poor.

#### **discussion**

The moisture in the ground would probably have continued to produce heavy vapour that, in the absence of any wind, would have in turn formed into low-lying cloud or fog. The fog would probably have got thicker through the night so that, by 4.45am, Davo may not have been able to see more than a few metres in front of him.

#### **significance**

Given his track record, Davo didn't stand a chance.

### **investigation scene 8**

The visibility would probably have been at least fair,

#### **discussion**

In March, the vapour-laden air would probably have been warmer than, say, in October and, therefore, more likely to rise rather hang around. As well, it was early in the night when the three students snuck off and fog would not have had time to build up. The full moon would have provided plenty of natural light, even if it was a little misty.

#### **significance**

Floater and his buddies almost certainly could see where they were going.