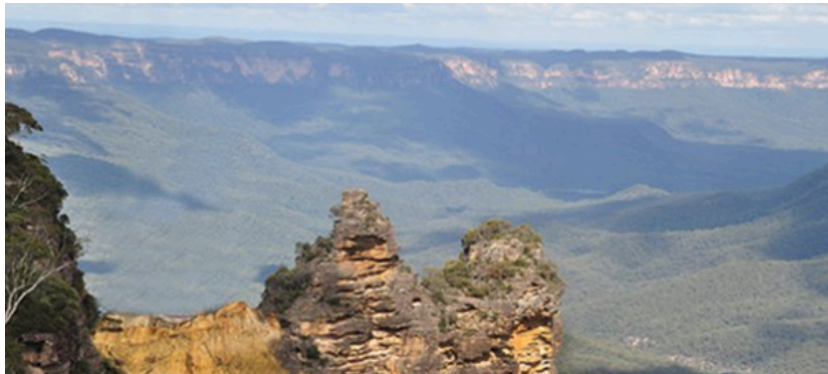


BLUE MOUNTAINS EXCURSION

Landscapes and Landforms (+ Geographical Tools)

Our Inquiry Question : What happened to the third sister?



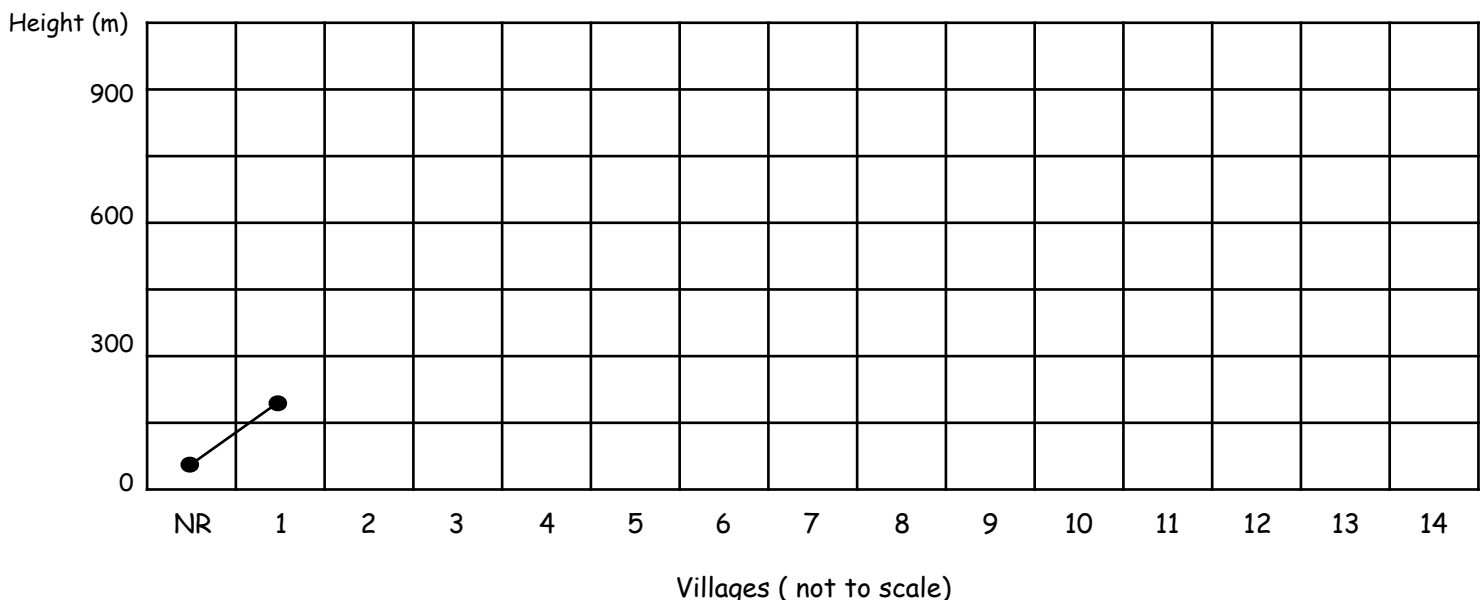
Name _____ Class _____

Section A - Villages of the Blue Mountains

On the way up the mountains find the names of these villages and their height above sea level:

Villages	Metres	Villages	Metres
1. Lapstone	160	8. L	
2. G		9. H	
3. B		10. L	
4. W		11. B	
5. V Heights		12. W Falls	
6. S		13. L	
7. F		14. K	

Graph your results below - The Nepean River and Lapstone have been done for you



Section B - ECHO POINT STOP:

1. Use the interpretive signs to complete the following:-

Landscapes and Landforms

Landforms: Millions of years ago huge swamps gradually turned to c _ _ _ after being covered with vast amounts of sand. Massive uplifting of the area left an exposed p _ _ _ _ _ (not really mountains) known as the Blue Mountains.

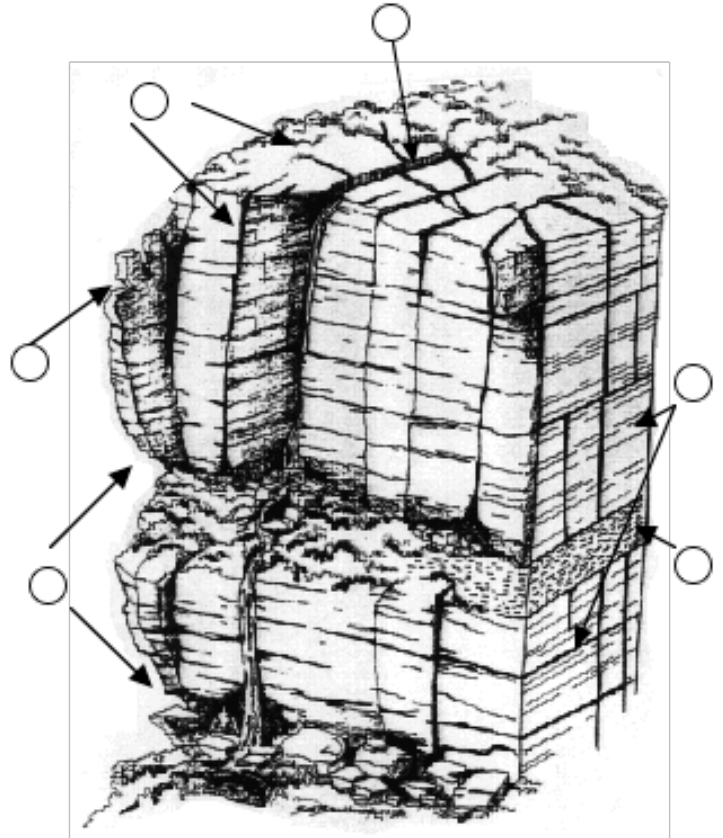
The Landscape Today:

The shape of the cliffs are formed because soft c l _ _ _ _ _ layers are eroded and collapse the rock above.

Landform Features: (also continued next page)

Use the letters in the list below to label the diagram.

- A. Horizontal and Vertical Faults
- B. Hanging or gliding rock
- C. Water erodes along faults
- D. Sandstone
- E. Overhanging rocks collapse
- F. Claystone (soft layer)



Value of landscapes and landforms

a. Aboriginal value

Muggadah Dreaming: The people living around Echo Point are the G u n _ _ _ _ _ . The valley is called G e d _ _ _ _ _ and is subject to Muggadah Dreaming. According to Muggadah Dreaming, there were actually _ _ _ _ _ sisters, not just three.

Popular legend has it that three sisters were turned to s _ _ _ _ _ to stop their capture by three brothers of a Nepean tribe. They couldn't be turned back from stone. They became the 3 Sisters. The cultural significance to the Gundungurra people, and environmental damage (erosion), means c _ _ _ _ _ is banned on the Three Sisters.

Mount Solitary, K _ _ _ _ _ , is said to have once been a sacred aboriginal men's initiation site.

b. European value

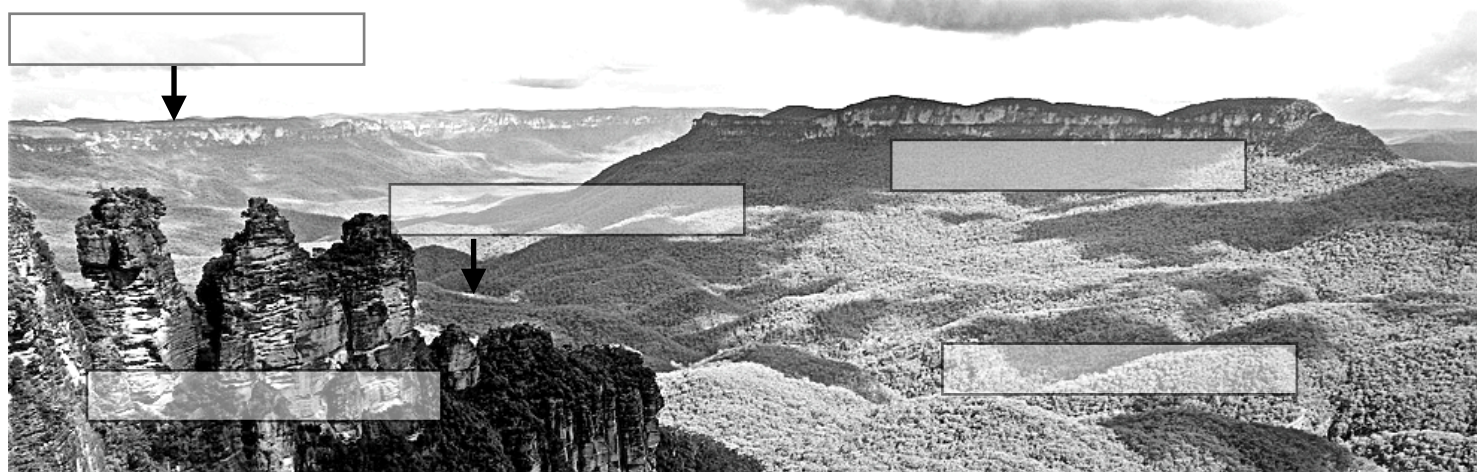
Find the following dates for these events:-

•Echo Point Reserve _____ •Blue Mts National Park _____ •World Heritage List _____

The Greater Blue Mountains World Heritage Area was mainly recognised for its outstanding
f _____. It has been described as a natural laboratory for the evolution of e _____.
More than 90 different eucalypt species are found here - some ____ % of all eucalypt species in
the world. They grow in a great variety of communities, from tall c _____ forests
(rainforests) to the s _____ mallee shrublands (heathlands) on the exposed plateaus.

2. **Field Sketch** - a) A photographer took a picture of the view looking south-east from the Echo Point lookout. Label the following (hint the names are on the signs at the end of the lookout) :-

• Three Sisters; • Kedumba River; • Mount Solitary; • Kings Tableland; • Jamison Valley.



b) Complete a line drawing in the rectangle below - the Three Sisters have been partially drawn.



Section C - Katoomba Park - Microclimates 1 (First hand investigation)

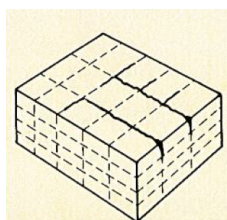


1. Complete the following table at **Katoomba Park**. You need to write down the name of the weather instruments, or aid, from the list below and record your results.

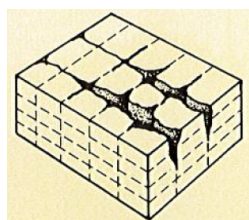
List: Anemometer Hygrometer Thermometer Compass Lux Meter.

Factor	Instrument / Aid	Result
Temperature		°C
Humidity		%
Light		lux
Wind Speed		km/hr
Wind Direction		
Cloud Cover	Observation	%
Cloud Type	Cloud chart	

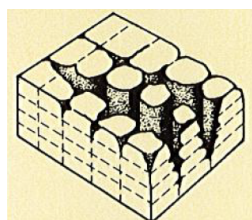
Section D - REID'S PLATEAU - Formation of Orphan Rock (and The 3 Sisters)



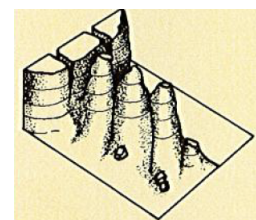
Erosion tends to follow planes of weakness called **joints**.



The joints occur here in vertical sets, and give the cliff lines the blocky straight edged appearance.



With progressive erosion, great blocks of sandstone fall into the valleys, breaking off at the joints.



Often large pillar like structures like Orphan Rock and the Three Sisters are left standing.



Along the **spur** beyond the Three Sisters can be seen a series of four stumps, suggesting that there may have once been Seven Sisters.

Eventually Orphan Rock and the Three Sisters will be worn away. All that will remain would be a pile of rubble.



Orphan Rock - Can you see it?

Section E - Walk down to the Furber Steps



Cool Temperate Rainforest (Sign 2)

Complete the sentences below:

Words - soil, recycled, leaf, water, drying, bacteria, rainforest, erodible.

1. The soils here are thin and highly _____. Nutrients from _____ litter and fallen branches are constantly _____ by fungi, worms, beetles and soil _____. Reliable _____ supply and protection from _____ winds supports a rich _____. The mulch of sticks and leaves prevents the _____ from being washed away.

Witches Leap (Sign 3)

2. What is the brown coloured material on the rocks? _____

3. What pollutants have caused this? _____

Rainforest Lookout (Sign 5)

4. Why is it important not to use the fallen wood for BBQ's? _____

5. Name one plant and two insects that help to turn the wood into humus (soil)



Plant _____ Insects _____

Microclimates 2

Factor	Result
Temperature	
Humidity	

Factor	Result
Light	
Wind Speed	

6. Account for the microclimate differences between here and Reid's Plateau . _____

Section F - Landscape Management and Protection

(This could be completed during the day or used a follow-up activity)

This area was listed as a World Heritage site in 2000. This means the natural features have been protected by law. However this does not stop the area being under threat from a variety of sources.

Some sources include tourism, non-native plants and animals, and urban development.

1. Explain how these sources may impact on the Blue Mountains landscape.



2. What could be done to lessen the impact of these sources on the landscape?

3. Describe any features you saw on the day which would lessen the impact of the above sources.

4. Look at the picture on Page 1. Explain what could have happened to the 'third sister'.

