

Grade 7 Natural Science Worksheet

Assessment Task: Environmental study

Signs of the wild

For this assessment, your teacher will take you to an area which you will have to study. It may be in the veld or in a park.

1. Choose an area which you personally are going to study which is about 10 m x 10 m (10 paces by 10 paces).
Imagine that you are a bird looking down on your study area.
Draw what you see. (Use a scale of roughly 1 m = 1 cm, sketch in dominant plant growth, old logs, living and non-living features.)
2. Describe your area in words.
3. Before you walk all over your area, see if you can find evidence of animal tracks/spoor and describe the tracks you observed. Use a key and show where they were found on the area map you drew in Question 1.
4. Collect four different types of grass and paste them in. Use a key and show where they were found on your area map.
5. Collect leaves from four different species of trees/shrubs and paste them in. Use a key and show where they were found on your area map.
6. Collect leaves from four different species of small plants and paste them in. Use a key and show where they were found on your area map.
7. Collect any droppings or animal remains found in your area and paste them in. Use a key and show where they were found on your area map.
8. Make a record of any animals you find in your area (insects, worms, etc.). Remember that if you find evidence that these animals have been present, record this too. Use a key and show where they were found on your area map.
9. From the evidence collected, you will realise that certain animals are living in your area while others have passed through. Why do you think these animals are/have been in your area?

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10. Look carefully at the plants in your area. Do any show signs of having been used by animals for food/shelter, etc? Record this evidence. Use a key and show where they were found on your area map.
11. Has the soil/rocks/water (any non-living matter) been used by animals? Record this evidence. Use a key and show where they were found on your area map.
12. Choose one of the animals you found a sign of in your area. What role do you think this organism plays in the veld? Draw a food web featuring this animal, and, if possible, other organisms you found evidence of in your area.

[48 marks]

The following rubric will be used to assess your practical assignment:

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Rubric to assess practical assignment on signs of the wild

Criteria	Level 4: 4 marks	Level 3: 3 marks	Level 2: 2 marks	Level 1: 1 mark
Question 1	Map drawn neatly and accurately, to scale, all features displayed.	Map drawn well and mostly to scale, most features displayed.	Map drawn satisfactorily although not always to scale, some features displayed.	Map drawn unsatisfactorily, not to scale, few features displayed.
Question 2	Written description is appropriate and accurate, well constructed sentences.	Written description is good, mostly well constructed sentences.	Written description is fair, fairly well constructed sentences.	Written description is poor, lack of well constructed sentences.
Question 3	Evidence of tracks/spoor well documented on map, key is effectively used.	Evidence of tracks/spoor is documented on map, key is used.	Some evidence of tracks/spoor fairly well documented on map, key is fairly well used.	Little evidence of tracks/spoor documented on map, key is not well used.
Question 4	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 5	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 6	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 7	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 8	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 9	Comprehensive and well	Good explanation of	Satisfactory explanation of	Poor explanation of why animals

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	articulated explanation of why animals have been in area.	why animals have been in area.	why animals have been in area.	have been in area.
Question 10	Evidence of plant usage by animals is well documented with appropriate comments.	Evidence of plant usage by animals is fairly well documented with some appropriate comments.	Evidence of plant usage by animals is satisfactorily documented with some comments.	Evidence of plant usage by animals is poorly documented with few comments.
Question 11	Evidence of non-living aspects is well documented with appropriate comments, key well used.	Evidence of non-living aspects is fairly well documented with comments, key fairly well used.	Evidence of non-living aspects is satisfactorily documented with some comments, key satisfactorily used.	Evidence of non-living aspects is not well documented with few comments, key poorly used.
Question 12	Comprehensive description of role played by organism, food web is accurate and integrates other organisms in the area.	Good description of role played by organism, food web is fairly accurate and integrates some other organisms in the area.	Fair description of role played by organism, food web is accurate in some areas and integrates a few other organisms in the area.	Poor description of role played by organism, food web is not accurate and there is poor integration of other organisms in the area.

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Suggested Solutions

Question number	Possible marks	Solution
1 – 12	48	See rubric in Appendix of Assessment Tools.

Appendix of Assessment Tools

Rubric to assess practical assignment on signs of the wild

Criteria	Level 4: 4 marks	Level 3: 3 marks	Level 2: 2 marks	Level 1: 1 mark
Question 1	Map drawn neatly and accurately, to scale, all features displayed.	Map drawn well and mostly to scale, most features displayed.	Map drawn satisfactorily although not always to scale, some features displayed.	Map drawn unsatisfactorily, not to scale, few features displayed.
Question 2	Written description is appropriate and accurate, well constructed sentences.	Written description is good, mostly well constructed sentences.	Written description is fair, fairly well constructed sentences.	Written description is poor, lack of well constructed sentences.
Question 3	Evidence of tracks/spoor well documented on map, key is effectively used.	Evidence of tracks/spoor is documented on map, key is used.	Some evidence of tracks/spoor fairly well documented on map, key is fairly well used.	Little evidence of tracks/spoor documented on map, key is not well used.
Question 4	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 5	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 6	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 7	Four examples collected, pasted	Three examples collected,	Two examples collected,	One example collected, pasted

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	in neatly, key is effectively used.	pasted in, key is used.	pasted in, key is fairly well used.	in, key is not well used.
Question 8	Four examples collected, pasted in neatly, key is effectively used.	Three examples collected, pasted in, key is used.	Two examples collected, pasted in, key is fairly well used.	One example collected, pasted in, key is not well used.
Question 9	Comprehensive and well articulated explanation of why animals have been in area.	Good explanation of why animals have been in area.	Satisfactory explanation of why animals have been in area.	Poor explanation of why animals have been in area.
Question 10	Evidence of plant usage by animals is well documented with appropriate comments.	Evidence of plant usage by animals is fairly well documented with some appropriate comments.	Evidence of plant usage by animals is satisfactorily documented with some comments.	Evidence of plant usage by animals is poorly documented with few comments.
Question 11	Evidence of non-living aspects is well documented with appropriate comments, key well used.	Evidence of non-living aspects is fairly well documented with comments, key fairly well used.	Evidence of non-living aspects is satisfactorily documented with some comments, key satisfactorily used.	Evidence of non-living aspects is not well documented with few comments, key poorly used.
Question 12	Comprehensive description of role played by organism, food web is accurate and integrates other organisms in the area.	Good description of role played by organism, food web is fairly accurate and integrates some other organisms in the area.	Fair description of role played by organism, food web is accurate in some areas and integrates a few other organisms in the area.	Poor description of role played by organism, food web is not accurate and there is poor integration of other organisms in the area.