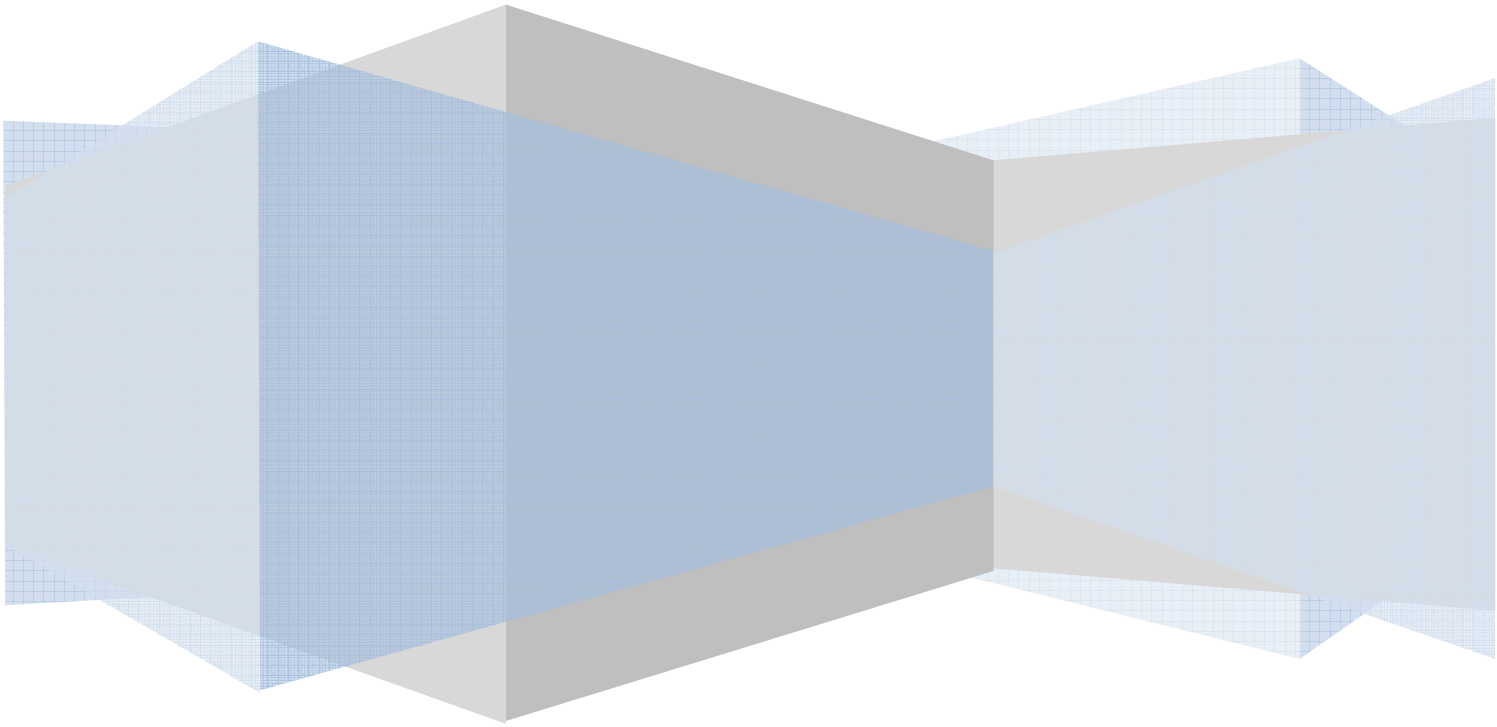
Additional Applied Science:

Forensic Science Portfolio

Author:_____



Additional Applied Science: Forensics Coursework Portfolio

Forensic scienctist (Student)_____

Lab supervisor (Teacher)_____

Introduction & background information

The crime scene

In this introductory section you should describe the details of the incident that has occurred. For example:

- Who was involved?
- When & where did it happen?
- What actually happened?

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Evidence to be investigated

In this section you should describe the evidence that can be obtained from the crime scene. Explain how the crime scene and evidence should be handled so that the evidence remains viable.

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Investigation 1:_____

Purpose of investigation

In this introductory section you should explain carefully the problem that you are investigating and explain how the evidence would be used by a forensic scientist.

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Equipment

You could include a list of the equipment that you will need.

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Risk assessment

You should complete a risk assessment for each part of your investigation.

Activity/Substance/ Material	What is the hazard?	What is the risk?	What control measures are necessary?

Procedure

You could set your plan out as a series of steps and use diagrams to help explain.

Results

Observations & measurements

- Where appropriate, you should carefully record your observations and measurements for your investigation(s) in tables.
- You should include headings for the columns of any table you prepare, and make sure you include the correct units.
- Don't forget to use the correct number of significant figures when you are recording your measurements.
- When recording observations you should be careful to record exactly what you have seen.
- You should also be able to summarise your results.

Calculations

- Where appropriate, you should use your results to carry out calculations.
- You should explain how you are going to use your measurements in any calculations that you carry out.
- You should present the outcome of your calculations in tables containing appropriate headings and units.

Conclusion

You should be able to use your measurements and/or observations to make accurate conclusions. You should show that you understand your results by referring to scientific knowledge gained during your course.

Evaluation

In this section you will need to answer a number of questions about your investigation. For example:
How good were my results?
Did I have any problems completing the investigation?
How strong are my conclusions?
How could I improve my investigation?

Uses in other vocational context

Explain how the techniques you have used could be used or adapted for use in other vocations.

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Use the checklist to track your progress – put a tick in the appropriate box when you complete each task.

The shaded items are what you need to do extra to reach Stage 3.

Title of investigation:		
	Tick	
I have given a vocational application for my investigation		
I have described a vocational application for my investigation		
I have researched and explained the vocational significance of my investigation		
I have written a plan for my investigation	**Some help**	
	Little help	
	No help	
My plan is clear and someone else could easily follow it		
I have completed a risk assessment for the experimental part of the investigation	**Some help**	
	Little help	
	No help	
I have selected appropriate equipment for my investigation and used it correctly	**Some help**	
	Little help	
	No help	
I have recorded the data I obtained/measurements I made		
I have presented my results appropriately		
Where appropriate, my tables have the correct column headings/graphs have the correct axes		
Where appropriate, I have used the correct units in my tables/sensible scales on my graphs		
I have independently recorded my observations and results accurately using a consistent number of decimal places throughout		
I have repeated measurements and explained why		
I have not repeated measurements but I have explained why		
I have given a simple explanation using my measurements/observations		
Where appropriate, I have carried out some calculations on data		
I have used my scientific knowledge to make conclusions using my measurements/conclusions		
Where appropriate, I have carried out some calculations on data and checked them for accuracy and consistency		
I have referred to my data, other sources and scientific theory to make conclusions		
I have described what went well		
I have described the problems that occurred		
I have suggested an improvement and given a reason why the improvement would be better		
I have stated the strengths and weaknesses of my investigation		
I have described the changes I would make if I did the investigation again		
I have explained why these changes would improve the data/information that I have obtained		
I have given a vocational use for this investigation		
I have explained how this investigation could be used in a vocational setting		

Investigation 2:_____

Purpose of investigation

In this introductory section you should explain carefully the problem that you are investigating and explain how the evidence would be used by a forensic scientist.

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Equipment

You could include a list of the equipment that you will need.

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Risk assessment

You should complete a risk assessment for each part of your investigation.

Activity/Substance/ Material	What is the hazard?	What is the risk?	What control measures are necessary?

Procedure

You could set your plan out as a series of steps and use diagrams to help explain.

Results

Observations & measurements

- Where appropriate, you should carefully record your observations and measurements for your investigation(s) in tables.
- You should include headings for the columns of any table you prepare, and make sure you include the correct units.
- Don't forget to use the correct number of significant figures when you are recording your measurements.
- When recording observations you should be careful to record exactly what you have seen.
- You should also be able to summarise your results.

Calculations

- Where appropriate, you should use your results to carry out calculations.
- You should explain how you are going to use your measurements in any calculations that you carry out.
- You should present the outcome of your calculations in tables containing appropriate headings and units.

Conclusion

You should be able to use your measurements and/or observations to make accurate conclusions. You should show that you understand your results by referring to scientific knowledge gained during your course.

Evaluation

In this section you will need to answer a number of questions about your investigation. For example:
How good were my results?
Did I have any problems completing the investigation?
How strong are my conclusions?
How could I improve my investigation?

Uses in other vocational context

Explain how the techniques you have used could be used or adapted for use in other vocations.

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Use the checklist to track your progress – put a tick in the appropriate box when you complete each task.

The shaded items are what you need to do extra to reach Stage 3.

Title of investigation:		
	Tick	
I have given a vocational application for my investigation		
I have described a vocational application for my investigation		
I have researched and explained the vocational significance of my investigation		
I have written a plan for my investigation	**Some help**	
	Little help	
	No help	
My plan is clear and someone else could easily follow it		
I have completed a risk assessment for the experimental part of the investigation	**Some help**	
	Little help	
	No help	
I have selected appropriate equipment for my investigation and used it correctly	**Some help**	
	Little help	
	No help	
I have recorded the data I obtained/measurements I made		
I have presented my results appropriately		
Where appropriate, my tables have the correct column headings/graphs have the correct axes		
Where appropriate, I have used the correct units in my tables/sensible scales on my graphs		
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I have not repeated measurements but I have explained why		
I have given a simple explanation using my measurements/observations		
Where appropriate, I have carried out some calculations on data		
I have used my scientific knowledge to make conclusions using my measurements/conclusions		
Where appropriate, I have carried out some calculations on data and checked them for accuracy and consistency		
I have referred to my data, other sources and scientific theory to make conclusions		
I have described what went well		
I have described the problems that occurred		
I have suggested an improvement and given a reason why the improvement would be better		
I have stated the strengths and weaknesses of my investigation		
I have described the changes I would make if I did the investigation again		
I have explained why these changes would improve the data/information that I have obtained		
I have given a vocational use for this investigation		
I have explained how this investigation could be used in a vocational setting		

Investigation 3:_____

Purpose of investigation

In this introductory section you should explain carefully the problem that you are investigating and explain how the evidence would be used by a forensic scientist.

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Equipment

You could include a list of the equipment that you will need.

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Risk assessment

You should complete a risk assessment for each part of your investigation.

Activity/Substance/ Material	What is the hazard?	What is the risk?	What control measures are necessary?

Procedure

You could set your plan out as a series of steps and use diagrams to help explain.

Results

Observations & measurements

- Where appropriate, you should carefully record your observations and measurements for your investigation(s) in tables.
- You should include headings for the columns of any table you prepare, and make sure you include the correct units.
- Don't forget to use the correct number of significant figures when you are recording your measurements.
- When recording observations you should be careful to record exactly what you have seen.
- You should also be able to summarise your results.

Calculations

- Where appropriate, you should use your results to carry out calculations.
- You should explain how you are going to use your measurements in any calculations that you carry out.
- You should present the outcome of your calculations in tables containing appropriate headings and units.

Conclusion

You should be able to use your measurements and/or observations to make accurate conclusions. You should show that you understand your results by referring to scientific knowledge gained during your course.

Evaluation

In this section you will need to answer a number of questions about your investigation. For example:
How good were my results?
Did I have any problems completing the investigation?
How strong are my conclusions?
How could I improve my investigation?

Uses in other vocational context

Explain how the techniques you have used could be used or adapted for use in other vocations.

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Use the checklist to track your progress – put a tick in the appropriate box when you complete each task.

The shaded items are what you need to do extra to reach Stage 3.

Title of investigation:		
	Tick	
I have given a vocational application for my investigation		
I have described a vocational application for my investigation		
I have researched and explained the vocational significance of my investigation		
I have written a plan for my investigation	**Some help**	
	Little help	
	No help	
My plan is clear and someone else could easily follow it		
I have completed a risk assessment for the experimental part of the investigation	**Some help**	
	Little help	
	No help	
I have selected appropriate equipment for my investigation and used it correctly	**Some help**	
	Little help	
	No help	
I have recorded the data I obtained/measurements I made		
I have presented my results appropriately		
Where appropriate, my tables have the correct column headings/graphs have the correct axes		
Where appropriate, I have used the correct units in my tables/sensible scales on my graphs		
I have independently recorded my observations and results accurately using a consistent number of decimal places throughout		
I have repeated measurements and explained why		
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Where appropriate, I have carried out some calculations on data		
I have used my scientific knowledge to make conclusions using my measurements/conclusions		
Where appropriate, I have carried out some calculations on data and checked them for accuracy and consistency		
I have referred to my data, other sources and scientific theory to make conclusions		
I have described what went well		
I have described the problems that occurred		
I have suggested an improvement and given a reason why the improvement would be better		
I have stated the strengths and weaknesses of my investigation		
I have described the changes I would make if I did the investigation again		
I have explained why these changes would improve the data/information that I have obtained		
I have given a vocational use for this investigation		
I have explained how this investigation could be used in a vocational setting		

Investigation 4:_____

Purpose of investigation

In this introductory section you should explain carefully the problem that you are investigating and explain how the evidence would be used by a forensic scientist.

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Equipment

You could include a list of the equipment that you will need.

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Risk assessment

You should complete a risk assessment for each part of your investigation.

Activity/Substance/ Material	What is the hazard?	What is the risk?	What control measures are necessary?

Procedure

You could set your plan out as a series of steps and use diagrams to help explain.

Results

Observations & measurements

- Where appropriate, you should carefully record your observations and measurements for your investigation(s) in tables.
- You should include headings for the columns of any table you prepare, and make sure you include the correct units.
- Don't forget to use the correct number of significant figures when you are recording your measurements.
- When recording observations you should be careful to record exactly what you have seen.
- You should also be able to summarise your results.

Calculations

- Where appropriate, you should use your results to carry out calculations.
- You should explain how you are going to use your measurements in any calculations that you carry out.
- You should present the outcome of your calculations in tables containing appropriate headings and units.

Conclusion

You should be able to use your measurements and/or observations to make accurate conclusions. You should show that you understand your results by referring to scientific knowledge gained during your course.

Evaluation

In this section you will need to answer a number of questions about your investigation. For example:
How good were my results?
Did I have any problems completing the investigation?
How strong are my conclusions?
How could I improve my investigation?

Uses in other vocational context

Explain how the techniques you have used could be used or adapted for use in other vocations.

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Use the checklist to track your progress – put a tick in the appropriate box when you complete each task.

The shaded items are what you need to do extra to reach Stage 3.

Title of investigation:		
	Tick	
I have given a vocational application for my investigation		
I have described a vocational application for my investigation		
I have researched and explained the vocational significance of my investigation		
I have written a plan for my investigation	**Some help**	
	Little help	
	No help	
My plan is clear and someone else could easily follow it		
I have completed a risk assessment for the experimental part of the investigation	**Some help**	
	Little help	
	No help	
I have selected appropriate equipment for my investigation and used it correctly	**Some help**	
	Little help	
	No help	
I have recorded the data I obtained/measurements I made		
I have presented my results appropriately		
Where appropriate, my tables have the correct column headings/graphs have the correct axes		
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I have described the problems that occurred		
I have suggested an improvement and given a reason why the improvement would be better		
I have stated the strengths and weaknesses of my investigation		
I have described the changes I would make if I did the investigation again		
I have explained why these changes would improve the data/information that I have obtained		
I have given a vocational use for this investigation		
I have explained how this investigation could be used in a vocational setting		

Investigation 5:_____

Purpose of investigation

In this introductory section you should explain carefully the problem that you are investigating and explain how the evidence would be used by a forensic scientist.

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Equipment

You could include a list of the equipment that you will need.

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Risk assessment

You should complete a risk assessment for each part of your investigation.

Activity/Substance/ Material	What is the hazard?	What is the risk?	What control measures are necessary?

Procedure

You could set your plan out as a series of steps and use diagrams to help explain.

Results

Observations & measurements

- Where appropriate, you should carefully record your observations and measurements for your investigation(s) in tables.
- You should include headings for the columns of any table you prepare, and make sure you include the correct units.
- Don't forget to use the correct number of significant figures when you are recording your measurements.
- When recording observations you should be careful to record exactly what you have seen.
- You should also be able to summarise your results.

Calculations

- Where appropriate, you should use your results to carry out calculations.
- You should explain how you are going to use your measurements in any calculations that you carry out.
- You should present the outcome of your calculations in tables containing appropriate headings and units.

Conclusion

You should be able to use your measurements and/or observations to make accurate conclusions. You should show that you understand your results by referring to scientific knowledge gained during your course.

Evaluation

In this section you will need to answer a number of questions about your investigation. For example:
How good were my results?
Did I have any problems completing the investigation?
How strong are my conclusions?
How could I improve my investigation?

Uses in other vocational context

Explain how the techniques you have used could be used or adapted for use in other vocations.

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Use the checklist to track your progress – put a tick in the appropriate box when you complete each task.

The shaded items are what you need to do extra to reach Stage 3.

Title of investigation:		
	Tick	
I have given a vocational application for my investigation		
I have described a vocational application for my investigation		
I have researched and explained the vocational significance of my investigation		
I have written a plan for my investigation	**Some help**	
	Little help	
	No help	
My plan is clear and someone else could easily follow it		
I have completed a risk assessment for the experimental part of the investigation	**Some help**	
	Little help	
	No help	
I have selected appropriate equipment for my investigation and used it correctly	**Some help**	
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I have described the changes I would make if I did the investigation again		
I have explained why these changes would improve the data/information that I have obtained		
I have given a vocational use for this investigation		
I have explained how this investigation could be used in a vocational setting		

Investigation 6:_____

Purpose of investigation

In this introductory section you should explain carefully the problem that you are investigating and explain how the evidence would be used by a forensic scientist.

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Equipment

You could include a list of the equipment that you will need.

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Risk assessment

You should complete a risk assessment for each part of your investigation.

Activity/Substance/ Material	What is the hazard?	What is the risk?	What control measures are necessary?

Procedure

You could set your plan out as a series of steps and use diagrams to help explain.

Results

Observations & measurements

- Where appropriate, you should carefully record your observations and measurements for your investigation(s) in tables.
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- You should also be able to summarise your results.

Calculations

- Where appropriate, you should use your results to carry out calculations.
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Conclusion

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How good were my results?
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How could I improve my investigation?

Uses in other vocational context

Explain how the techniques you have used could be used or adapted for use in other vocations.

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The shaded items are what you need to do extra to reach Stage 3.

Title of investigation:		
	Tick	
I have given a vocational application for my investigation		
I have described a vocational application for my investigation		
I have researched and explained the vocational significance of my investigation		
I have written a plan for my investigation	**Some help**	
	Little help	
	No help	
My plan is clear and someone else could easily follow it		
I have completed a risk assessment for the experimental part of the investigation	**Some help**	
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I have stated the strengths and weaknesses of my investigation		
I have described the changes I would make if I did the investigation again		
I have explained why these changes would improve the data/information that I have obtained		
I have given a vocational use for this investigation		
I have explained how this investigation could be used in a vocational setting		

Summary:

This final part of your report is very important and you should outline the findings from your investigations. You should be able to summarise and use your findings, conclusions and evaluation when giving a recommendation in this final section.

Overview of results from investigations

Summative conclusion

Summative evaluation