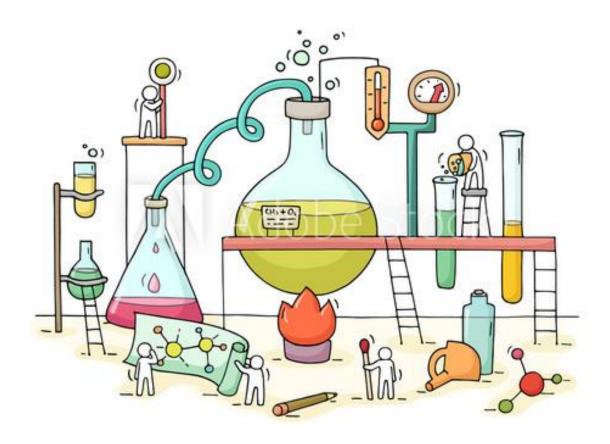
STUDENT NAME:	TEACHER NAME:	CLASS

PRACTICAL PORTFOLIO



CONTENTS:

Practical Tasks:

- Comparing the Heating Rate of Bunsen Flames
- Tracing Transpiration of Celery
- Mining a Cookie

Due Date:

15th March by 3.20pm to teacher Week 7 Term 1 2024

MARKING CRITERIA:

PRACTICAL REPORTS:

Criteria Bussen Flame Heat Mining Transpiral Aim Hypothesis Prediction Materials Correct quantities All listed Method: Controlled Variables Independent Variables Alse and Precautions Results Written observations Table contains relevant and concise data Graph Titles and units on axis Correct data Correct type of graph Discussion Question 1 Question 2 Question 3 Question 4 Question 5 Question 5 Correct Ada Conclusion summarises trends Total tront and concise data Conclusion summarises trends					
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TOTAL FOR EACH PRACTICAL SECTION /43 /44 /45	1	Conclusion summarises trends			
		TOTAL FOR EACH PRACTICAL SECTION	/43	/44	/45
ASSESSMENT TOTAL /132		ASSESSMENT TOTAL	•	/132	•

leacher Comment:			
Teacher Signature:	Date:		

Bunsen Flame Heat

Activity Description:

In this experiment you will measure the number of gauze squares heated by the 2 different types of Bunsen burner flame. You should compare the number of squares heated by each flame in a graph and conclude which flame is hotter.

Aim:
Hypothesis:
I believe
Because
Prediction:
If your hypothesis is true, what would you observe?
Materials:
List all materials needed, including sizes and quantities

Variables:		
Identify the:		
Independent variable:		
Dependent variable:		
Controlled variables:		
Method:		
List the steps required to	perform this experiment:	
☐ Start with a numbe☐ Start with a verb☐ Use impersonal lan☐ Be specific in times	guage	
		

Risk Assessment:

Risk	Precaution
What could go wrong?	How do I keep safe?

Diagram:

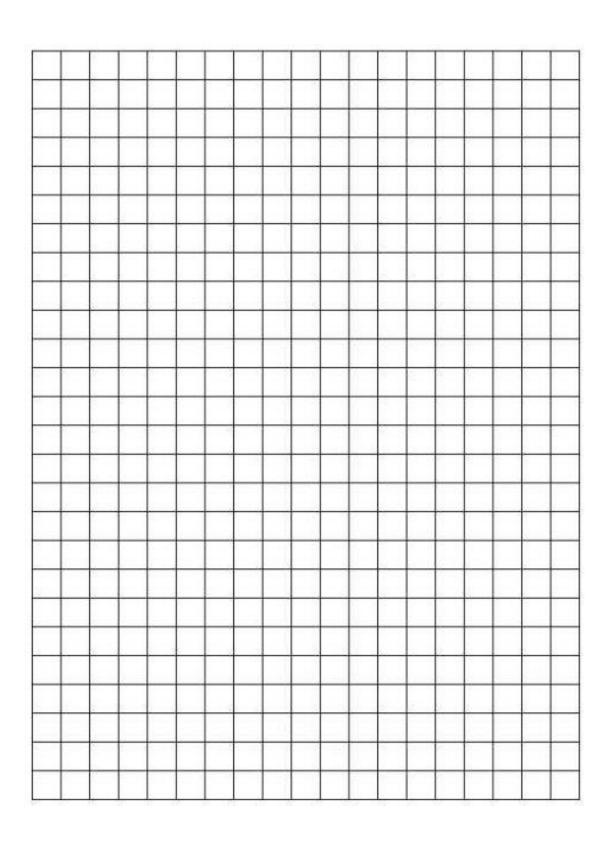
Provide a labelled diagram of your apparatus for this experiment:

Results:
Qualitative Results (words/sketches):
Overstitative Results (avershous).
Quantitative Results (numbers):
Tabulate your data in the space below

Graph:

		_	
□ Rule	in د	the	avic

- \square Labels (title, x = independent, y = dependent)
- ☐ Increments
- ☐ Plot the data:
 - 2 sets of numbers line graph
 - Number and a name column graph



Discussion:

1. Label the following diagram of a Bunsen Burner

a
b
c
d
e
gauze mat to measure the heating
periment? Does is answer your aim?

Tracing Transpiration

Activity Description:

In this experiment you will compare the transpiration rate of a plant by measuring the movement of dyed water throughout the xylem. You will compare the transpiration rate of a plant both with and without leaves. You will observe the vascular bundles of the plant under a microscope and draw them.

Background Research: (this section does not have marks attached to it)		
Using the internet, research the following:		
1. What is transpiration?		

2. Sketch a labelled diagram of the transpiration process.

Aim:
Hypothesis:
I believe
Because
Prediction:
If your hypothesis is true, what would you observe?
NA-t
Materials:
List all materials needed, including sizes and quantities

Variables:	
Identify the:	
Independent variable:	
Dependent variable:	
Controlled variables:	
Method:	
List the steps required to	perform this experiment:
☐ Start with a numbe☐ Start with a verb☐ Use impersonal lan☐ Be specific in times	guage

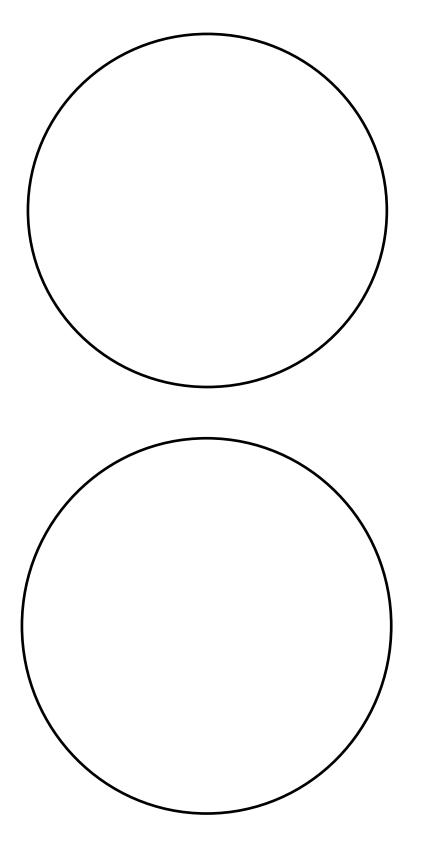
Risk Assessment:

Risk	Precaution
What could go wrong?	How do I keep safe?

Diagram:

Provide a labelled diagram of your apparatus for this experiment:

Results:					
Qualitative Results (words/sketches):					



Quantitative Results (numbers):	
Tabulate your data in the space below	

Discussion (continued from initial internet research):

 Explain the transpiration rates of the different plants by referring to the qualitative results collected.
2. Referring to your diagrams of the plant slides, explain why only part of the vascular bundle was dyed.
3. Discuss another TWO ways to test the rate of transpiration in plants

Con	clusion:
Wha	at was the overall trend in this experiment? Does it answer your aim
	Cookie Mining
	Activity Description:
	In this experiment you will need to measure the total weight of the cookie, and then the weight of the chocolate chips. From this you will be able to calculate the %Yield = (weight of chips/weight of cookie) x 100. Repeating this experiment will improve the reliability of your results. You can do this to different brands of cookies to see which is best value for money based on how much chocolate you are getting.
Aim	:
Нур	othesis:
I bel	ieve
Beca	ause
Pred	liction:
If vo	ur hypothesis is true, what would you observe?
•	, ,

Materials:	
List all materials needed, including sizes and quantities	
Variables:	
dentify the:	
ndependent variable:	
Dependent variable:	
Controlled variables:	

Method: List the steps required to perform this experiment: ☐ Start with a number ☐ Start with a verb ☐ Use impersonal language ☐ Be specific in times, amounts etc

Risk Assessment:

Risk	Precaution
What could go wrong?	How do I keep safe?

Diagram:

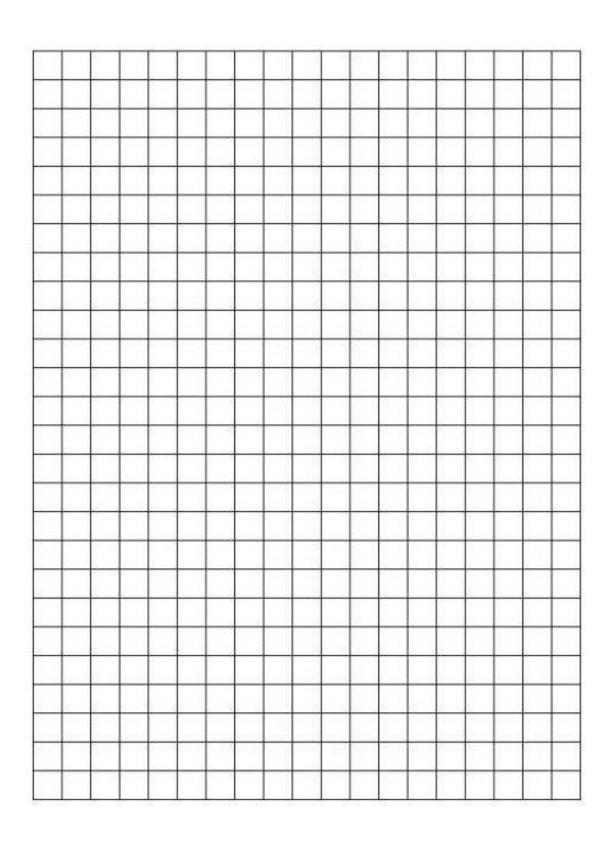
Provide a labelled diagram of your apparatus for this experiment:

Results:
Qualitative Results (words/sketches):
Quantitative Results (numbers):
Tabulate your data in the space below

Graph:

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	17(1)		1115	כוגם

- \square Labels (title, x = independent, y = dependent)
- ☐ Increments
- ☐ Plot the data:
 - 2 sets of numbers line graph
 - Number and a name column graph



Discussion:
Calculate the percentage yield for:
1. BRAND A:
2. BRAND B:
3. BRAND C:
4. Which brand of cookie provides the best value for money and why?
5. What is one source of error in this experiment?
Conclusion:
What was the overall trend in this experiment? Does is answer your aim?