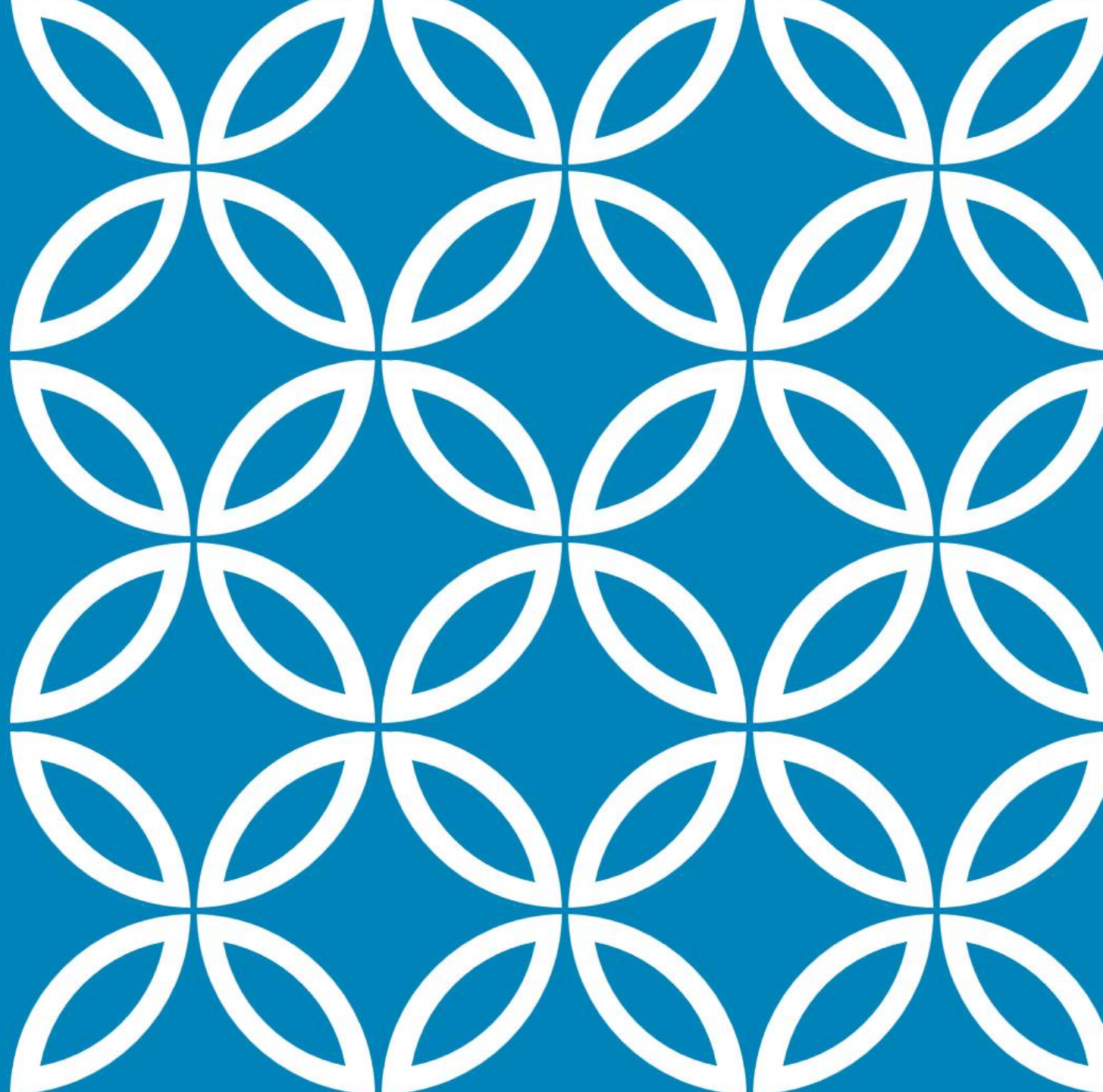




# CREST BRONZE AWARD INVESTIGATION PLANNER + REPORT

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 Edit the presentation and insert your own words instead. You can change the design as you like!





# TOPIC

WHAT WILL YOUR PROJECT BE ABOUT?

**Chocolate Chip Cookies**



# AIM

WHAT DO YOU WANT TO TEST?

**To find out what brand of chocolate chip cookie is the best by comparing the chocolate chip content.**



# VARIABLES

MAKE SURE THAT YOUR TEST IS A FAIR TEST

<b>Independent Variable</b> (the one thing that I will change)	<b>Dependent Variable</b> (what I am measuring)	<b>Controlled Variables</b> (what I will keep the same)
<b>Brand of chocolate chip cookie</b>	<b>The number of chocolate chips per unit of weight</b>	<b>The amount (grams) of cookie</b>
		<b>The method of dissecting the cookies</b>
		<b>The method of portioning the cookies</b>



# HYPOTHESIS

PREDICT WHAT YOU THINK WILL HAPPEN

**The Coles Ultimate 40% chocolate chip cookies will have more chocolate chips than the Paradise Cottage and Chips Ahoy chocolate chip cookies.**





# MATERIALS/EQUIPMENT

WHAT WILL YOU NEED TO PERFORM THE TEST? (INCLUDE QUANTITIES)

**1x Coles Ultimate 40% chocolate chip cookies**

**1x Paradise Cottage chocolate chip cookies**

**1x Chips Ahoy chocolate chip cookies**

**1x Scale**

**1x Measuring tray**

**1x Tweezers**

**1x Marker**

**1x Knife**

**Paper towel**



# METHOD

## WHAT WILL YOU NEED TO PERFORM THE TEST?

- 1) Set up testing area**
- 2) Select one brand of chocolate chip cookie and take one out of the packet.**
- 3) Weigh 15g of the cookie (place measuring tray on scale and tare (zero), break the cookie into a 15g portion)**
- 4) Place the cookie portion onto paper towel (label the paper towel)**
- 5) Carefully dissect the cookie with tweezers (remove chocolate chips)**
- 6) Count the chocolate chips and record the data.**
- 7) Repeat steps 1-6 four times for the same brand of cookie.**
- 8) Repeat steps 1-6 four times for the other brand of cookies.**

# METHOD

DRAW A DIAGRAM OF YOUR TEST SET UP (INSERT A PICTURE)





# SAFETY

WHAT SAFETY ISSUES DO YOU NEED TO CONSIDER?

- 1. Be careful with the use of the knife when portioning the cookies.**
- 2. Place the knife in a safe place when not in use.**
- 3. Do not eat cookies used in the test**



# RECORDING RESULTS

HOW WILL YOU RECORD YOUR RESULTS? WHAT ARE YOU GOING TO RECORD?

**The data collected will be the number of chocolate chips per 15g of cookie for each brand. An average of the data will be calculated as well as the percentage of chocolate chips.**

**The results will be recorded in a table.**



# RECORDING RESULTS

Trial	Number of chocolate chips (per 15g of cookie)		
	Coles Ultimate 40% chocolate chip cookies	Paradise Cottage chocolate chip cookies	Chips Ahoy chocolate chip cookies
1	6	5	5
2	8	4	5
3	7	6	6
4	7	4	6
5	9	5	4
Average	7.4	4.8	5.2
Percentage (%)	49.3	32	34.6



# LOG BOOK

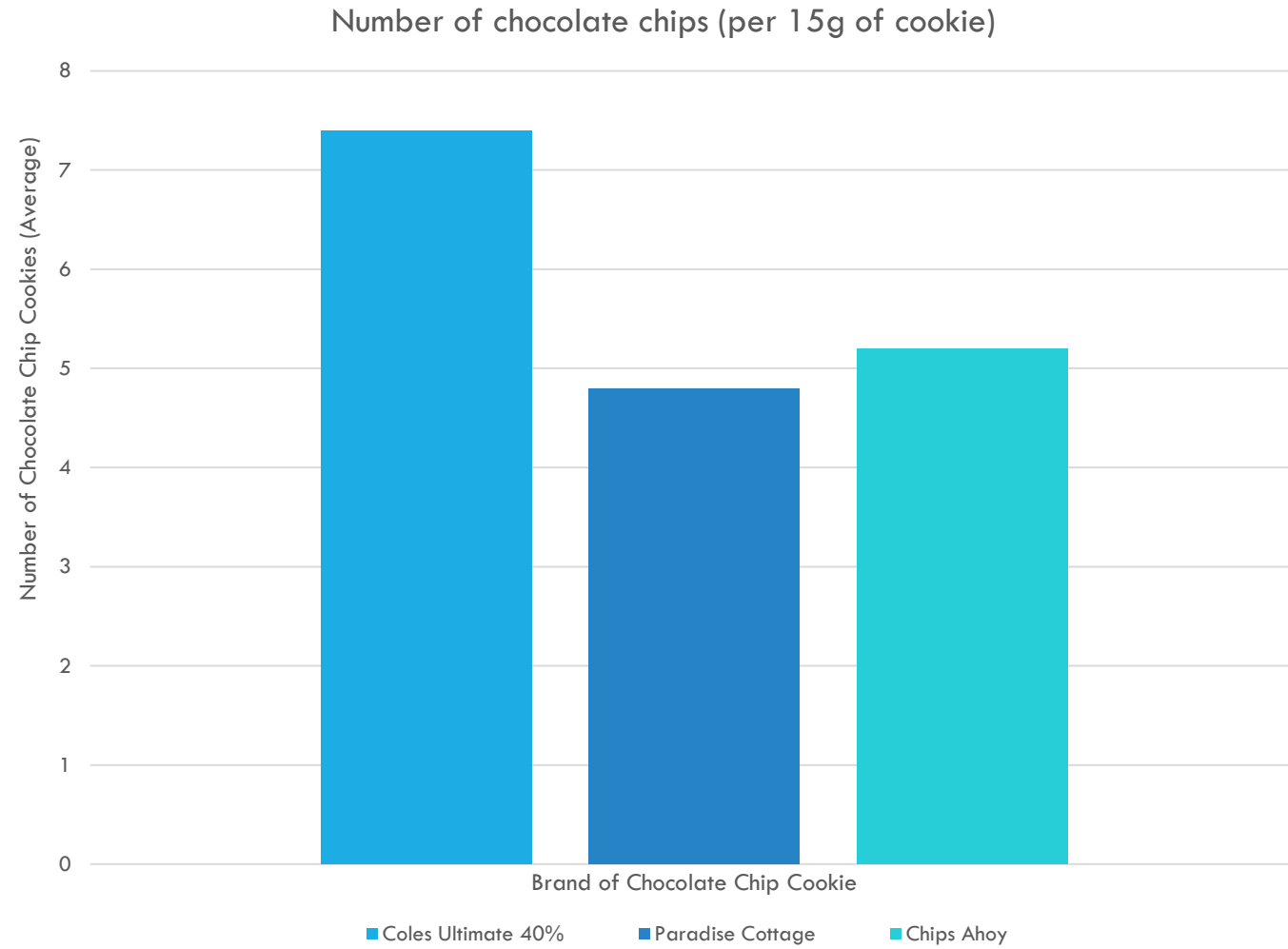
ADD ANOTHER SLIDE IF YOU NEED TO!

## RECORD WHAT YOU DO WHEN YOU ARE TESTING

<b>Date Time</b>	<b>Notes</b> (Include what you did, particularly any changes that you made to your method)
<b>25<sup>th</sup> November 2018</b>	During a test trial, I tried different ways of dissecting chocolate chip cookies. First I tried breaking it apart with my hands, but I ended up losing some of the chocolate chips. Because of this I used tweezers instead. By using the tweezers I was able to dissect the chocolate chips much quicker and easier.
<b>27<sup>th</sup> November 2018</b>	I brought the different brands of cookies into school and tested how to portion them. I decided that 10g of cookie was too small to use in the test, so I increased the size to 15g. Also, I was able to get a good idea of how much 15g grams of cookie looks like for each brand. To make the portioning of the cookies easier I used a knife to cut them.
<b>29<sup>th</sup> November 2018</b>	The method was followed for the test.

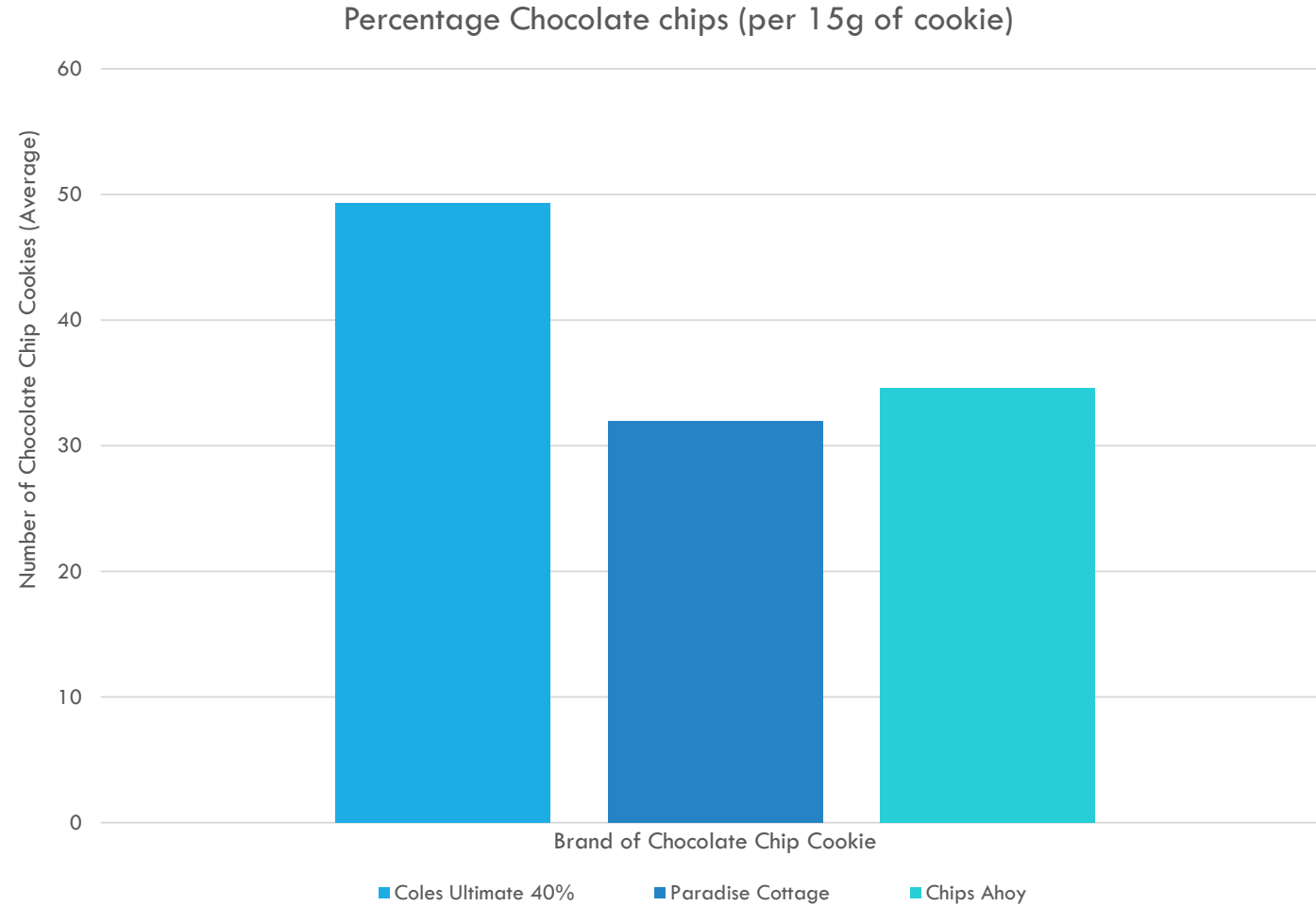


# RESULTS





# RESULTS





# DISCUSSION

**What does the pattern of the results show you?**

**Explain the results using science.**

**How could you improve your experiment?**



# CONCLUSION

**What were your findings?**

**Was your hypothesis accepted or rejected?**

**What are the results useful for?**