



*What does this mean?*

# Spring 1<sup>st</sup> Half

## Year 3



- ask scientific questions and use different types of enquiries to answer them
- set up simple practical enquiries, comparative and fair tests
- make careful observations and take accurate measurements using a range of equipment, including thermometers and data loggers
- gather, record, classify and present data in a variety of ways to help answer a question
- record my results using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- explain my results by using oral and written explanations, displays or presentations of results and conclusions
- use my results to draw simple conclusions, make predictions for new values, suggest how to improve my investigation and ask further questions
- identify differences, similarities or changes related to simple scientific ideas and processes
- use scientific evidence to answer questions or to support my findings

Lesson 2

LO: To take precise and accurate measurements.

Explore and think scientifically



What are you trying to find out?  
What questions and ideas do you have?  
Who uses this or where is it used in everyday life?

Ask key Questions

What do you want to find out?  
What variables are you changing or measuring?  
Does your question tell others this?



Plan

How can you answer your question?  
What type of enquiry should you use?  
Why?

1. Exploring
2. Research
3. Observing over time
4. Fair test/pattern seeking
5. Sorting and classifying
6. Designing and developing
7. Using a model

Evaluate and Refine

Do you trust your results? Why?  
How could you change what you did to make your evidence more reliable or meaningful?  
What new questions do you have now?

Analyse and Conclude

What is the answer to your question?  
What does your evidence mean?  
Are there any patterns?  
What did you find out? How can you tell?  
Why? Is there anything odd? What could have caused this?  
Have you used secondary research to support or compare your results?



Observe & Measure

What will you need?  
How will you use it?  
How often will you do it?  
How will you record it; table, notes, drawings?  
How will you make it safe?  
How will you make it fair?  
Make predictions.



Present Information and Communicate

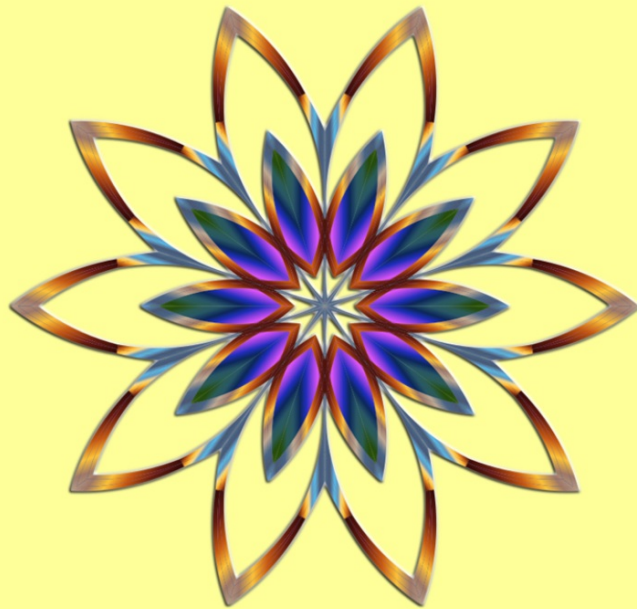
Do you need any more information?  
Do you need to double check anything?  
How will you show others what you've found out?

Carry out

Working on your own or in a team?  
Does everyone have a role?  
Will you have enough time?  
Now you've started do you need to make any modifications to succeed?



## *Paper flowers*



*What is happening?  
Can you explain why?*

What could we change, that might affect our results?



Choose one variable to investigate.

Work as a group to write your question.



Does ----- affect -----?



## Plan

Plan 1  
strategy

How can you answer your question?  
What **type of enquiry** should you use?  
Why?

1. Exploring
2. Research
3. Observing over time
4. Fair test/pattern seeking
5. Sorting and classifying
6. Designing and developing
7. Using a model



Plan 2  
Observe,  
measure,  
gather

### Observe & Measure

What will you need?

How will you use it?

How often will you do it?

How will you record it: table, notes,  
drawings?

How will you make it safe?

How will you make it fair?

Make predictions.



*Make your predictions.*

Do I  
carry  
out!

### **Carry out**

Working on your own or in a team?  
Does everyone have a role?  
Will you have enough time?  
Now you've started do you need to make  
any modifications to succeed?



*What roles might you need?*

Lesson 3

LO: To present data to help answer our question.

Do 2  
record &  
present

**Present Information and  
Communicate**

Do you need any more information?  
Do you need to double check anything?  
How will you show others what you've  
found out?

*How could you present your results?*

*Would you use a bar chart or a line  
graph?*

### Analyse and Conclude

What is the answer to your question?  
What does your evidence mean?  
Are there any patterns?  
What did you find out? How can you tell?  
Why? Is there anything odd? What could  
have caused this?  
Have you used secondary research to  
support or compare your results?

Review 1  
analyse &  
conclude

Can you explain  
your results using  
your scientific  
knowledge?

word bank


# Group discussion



## Evaluate and Refine

Do you trust your results? Why?  
How could you change what you did to  
make your evidence more reliable or  
meaningful?  
What new questions do you have now?

Review 2  
evaluate  
or refine

Lesson 3

LO: To make careful observations.

You're going to be  
doing some drawing  
today to identify help  
you identify the  
object among  
others!





## Plan

Plan 1  
strategy

How can you answer your question?  
What **type of enquiry** should you use?  
Why?

1. Exploring
2. Research
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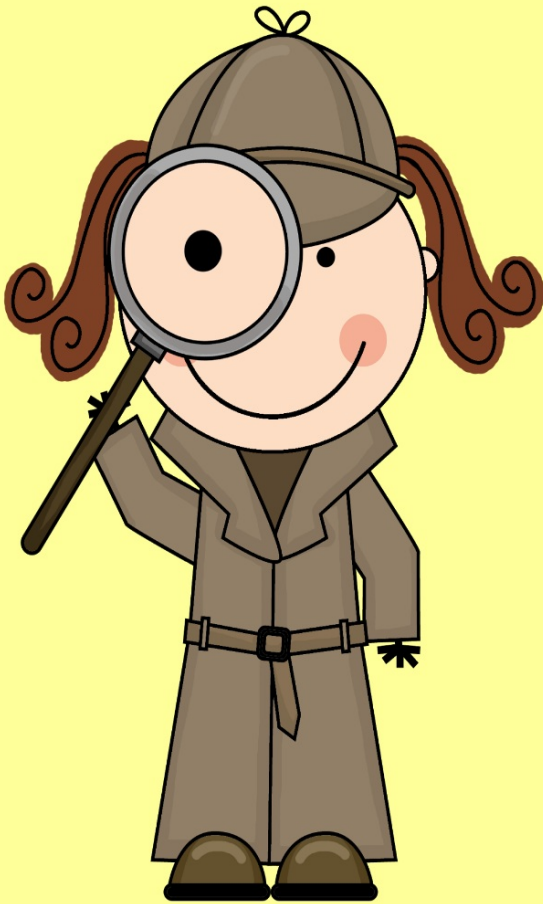
Write your name of  
the back of a paper  
towel and place  
your cookie on top.



Your task is to  
draw your cookie.  
You have 3 minutes.

Place your cookie on  
it's paper towel in the  
middle of your table.





Can you  
identify your  
cookie?



If you did identify your cookie, what helped you?

If you didn't, what could you do better next time?

Smiley face if you did.  
Sad face if you didn't.

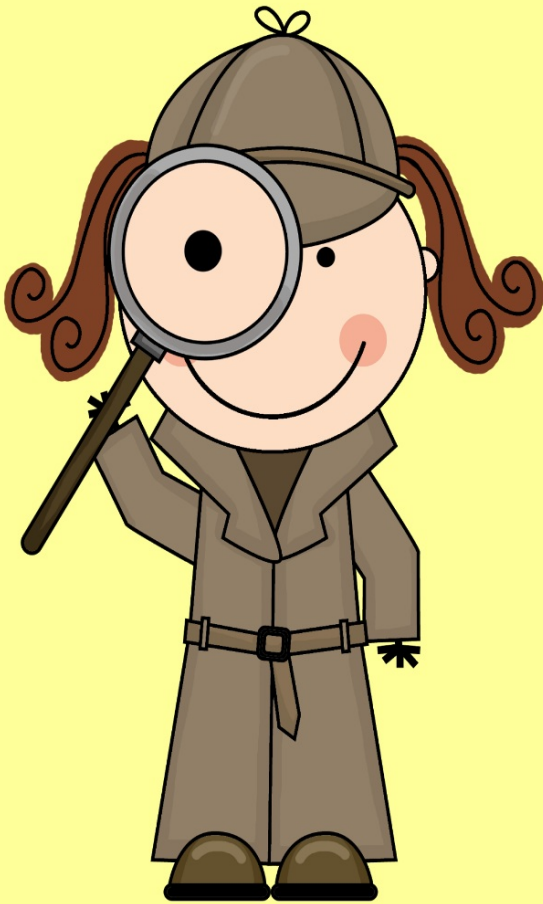
A large empty rectangular box with a red border, intended for a drawing or response. A black line points from the text 'Sad face if you didn't.' to the bottom-left corner of the box.

Retrieve your cookie and  
have another go in box  
number 2!



Place your cookie on  
it's paper towel in the  
middle of your table.





Can you  
identify your  
cookie?



Smiley face if you did.  
Sad face if you didn't.



How did you improve?

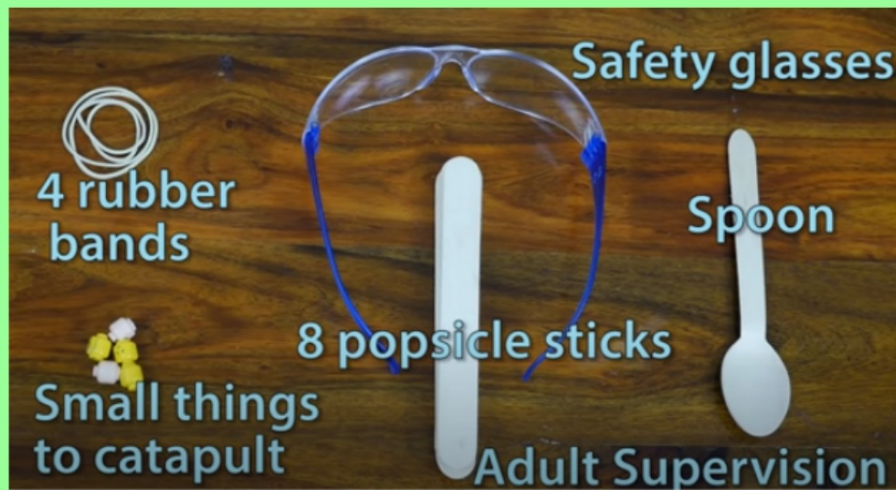
In your book, write about what is needed in order to make careful and accurate observations.

Lesson 4

LO: To set up simple enquiries.



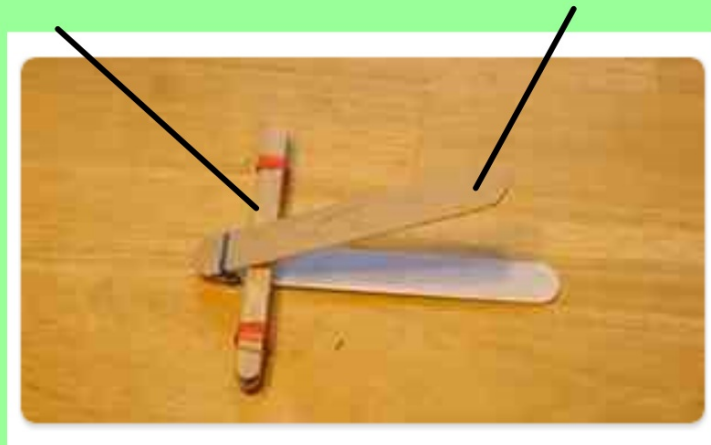
# Let's make a catapult!



How will we keep it safe and sensible?

Explore

What could we investigate with our catapults today?



We are going to change .....



Explore and think scientifically



What are you trying to find out?  
What questions and ideas do you have?  
Who uses this or where is it used in everyday life?

Ask key Questions

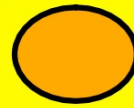
What do you want to find out?  
What variables are you changing or measuring?  
Does your question tell others this?



What ammunition could we use?



How many times should we try each type of material?



How will we measure the distance?



word bank

I predict that the ..... will go the  
furthest because

.....  
.....  
.....

Plan 2  
Observe,  
measure,  
gather

### Observe & Measure

What will you need?  
How will you use it?  
How often will you do it?

How will you record it: table, notes,  
drawings?

How will you make it safe?  
How will you make it fair?  
Make predictions.



*Record your results*



### Analyse and Conclude

What is the answer to your question?  
What does your evidence mean?  
Are there any patterns?  
What did you find out? How can you tell?  
Why? Is there anything odd? What could  
have caused this?  
Have you used secondary research to  
support or compare your results?

Review 1  
analyse &  
conclude

Can you explain  
your results using  
your scientific  
knowledge?

word bank


Lesson 5

LO: To take precise and accurate measurements.

*How might we take accurate  
measurements?*

*What are the important things to remember when using a stopwatch?*



Today, we will be  
doing a variety of  
activities and  
recording how long it  
takes our partner to  
do each one.

What activities could we record?





Plan 2  
Observe,  
measure,  
gather

### Observe & Measure

What will you need?  
How will you use it?  
How often will you do it?  
How will you record it; table, notes,  
drawings?  
How will you make it safe?  
How will you make it fair?  
Make predictions.

