



What does this mean?

Spring 1st 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

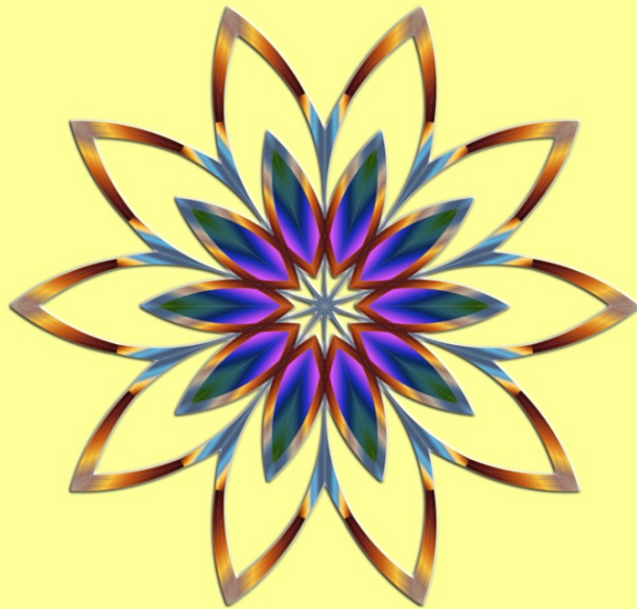
Do you need any more information?
Do you need to double check anything?
How will you show others what you've found out?

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
3. Observing over time
4. Fair test/pattern seeking
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6. Designing and developing
7. Using a model



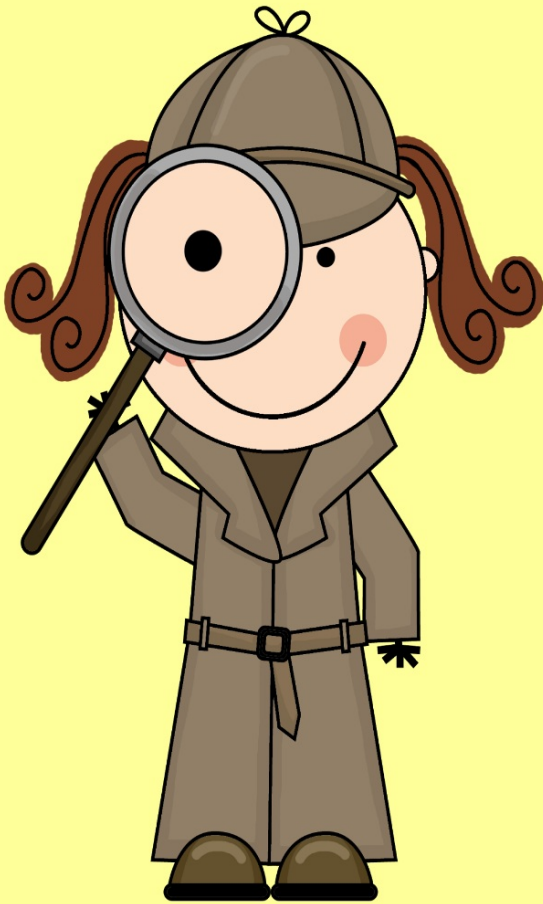
Write your name of
the back of a paper
towel and place
your cookie on top.



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.

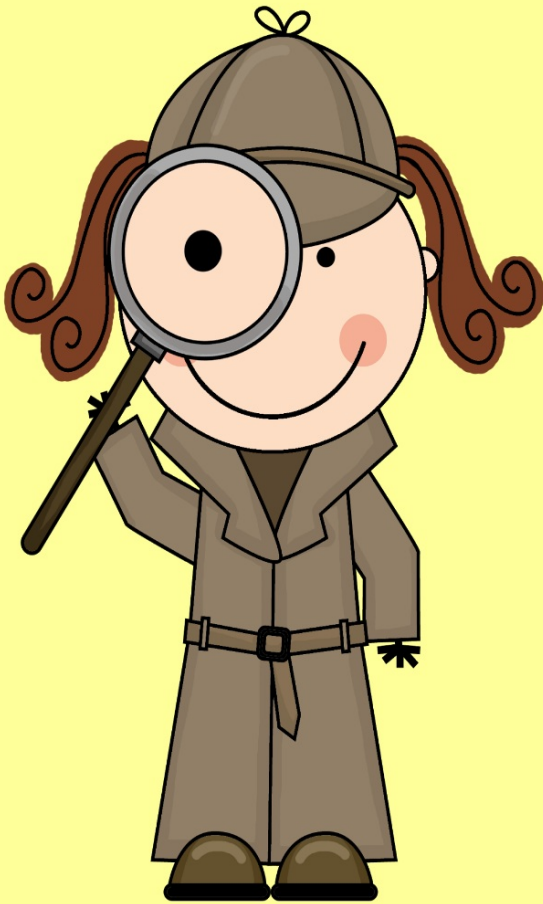
A large empty rectangular box with a red border, intended for a drawing or response. A black line points from the text 'Sad face if you didn't.' to the bottom-left corner of the box.

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?

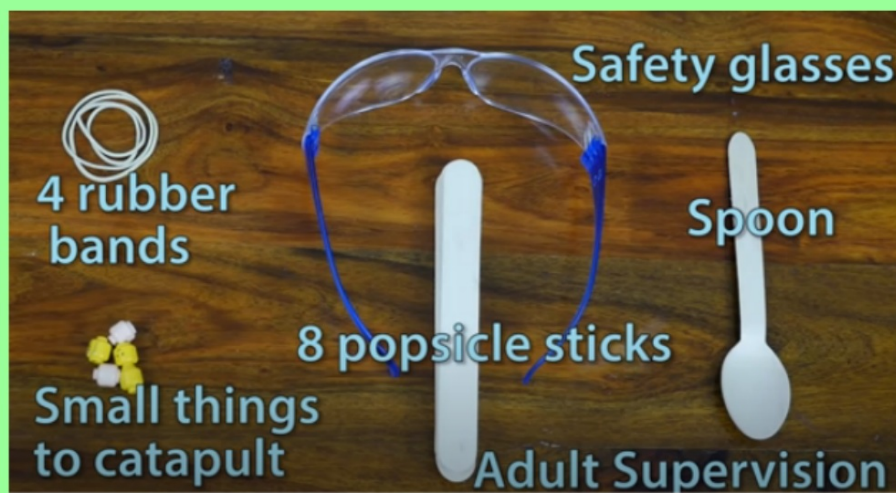
In your book, write about what is needed in order to make careful and accurate observations.

Lesson 4

LO: To set up simple enquiries.



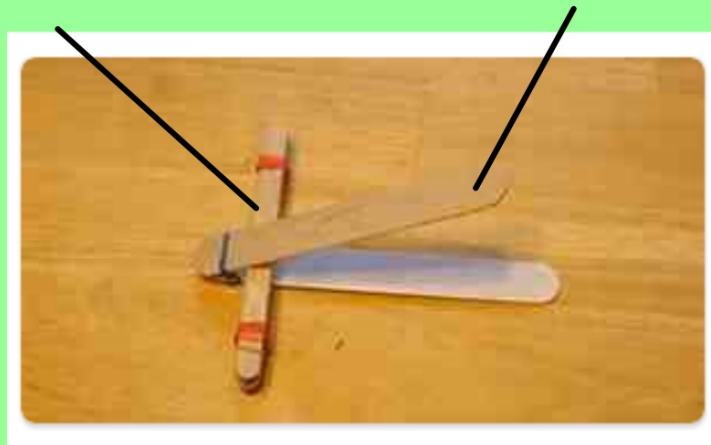
Let's make a catapult!



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

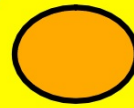
What do you want to find out?
What variables are you changing or measuring?
Does your question tell others this?



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.

