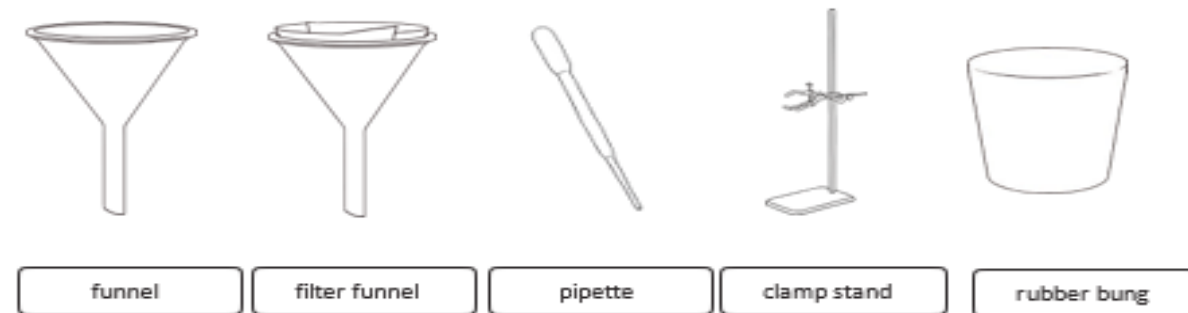
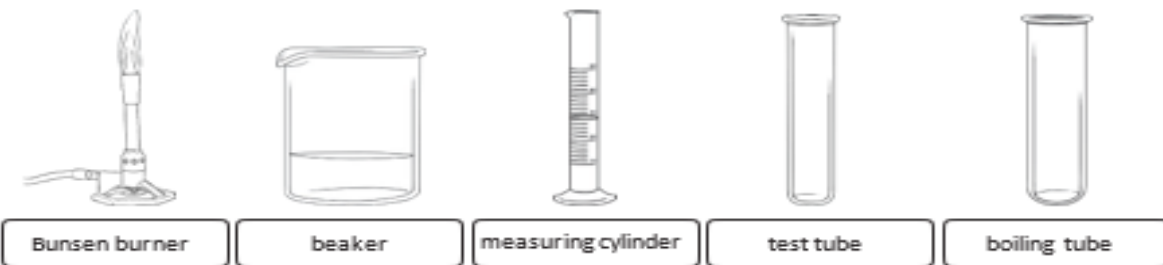


Lab Equipment - Here are some common lab equipment you will use.

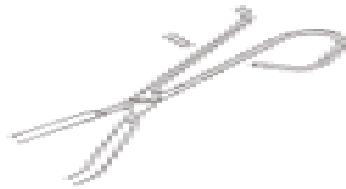
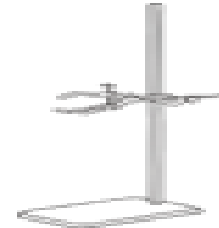
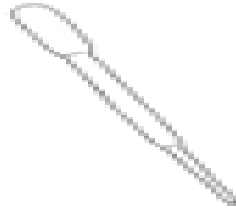
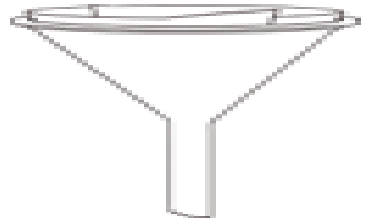
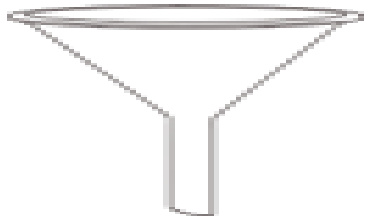
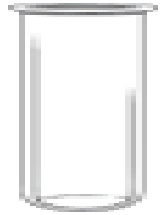
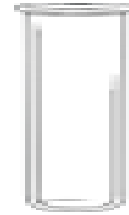
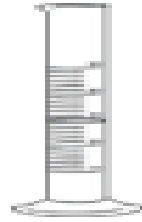
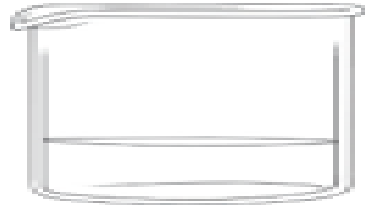
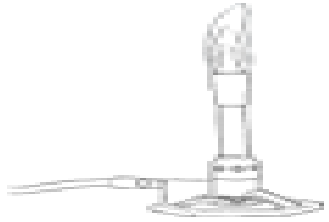
Name the piece of equipment you would use for the following:

1. Protect your eyes
2. Measure the temperature
3. Heat substances
4. Time how long something takes
5. Store test tubes
6. Place hot things on
7. Measure the mass (weight) of things
8. Hold liquids
9. Measure out liquids accurately
10. Measure out small amounts of solids e.g. powders.



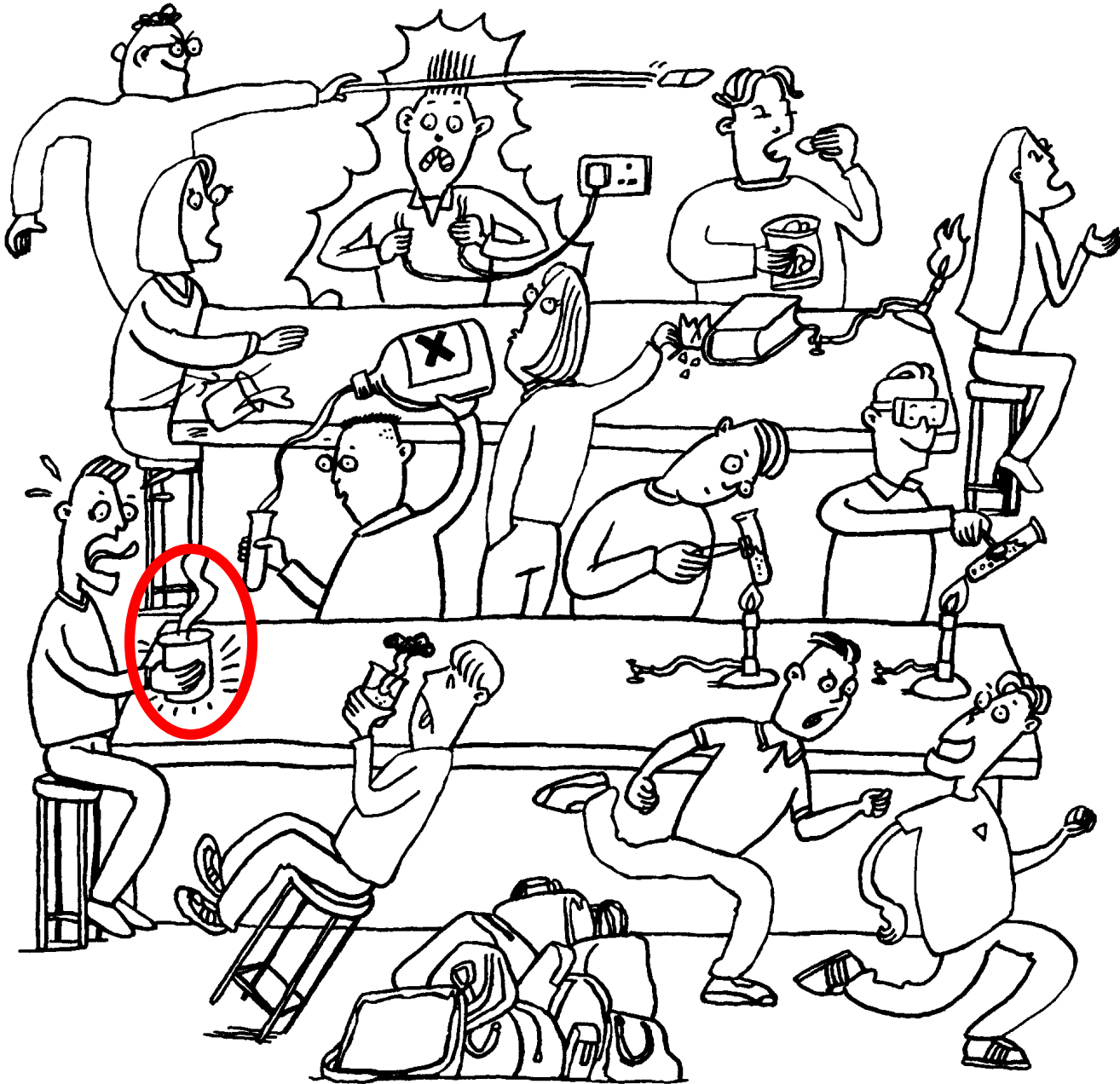
1	Goggles
2	Thermometer
3	Bunsen burner
4	Stopwatch
5	Test tube rack
6	Heatproof mat
7	Top-pan balance
8	Beaker
9	Measuring cylinder
10	Spatula

Lab Equipment - Name the equipment



Spot the Danger

Circle the danger and describe why its dangerous



Danger

Why

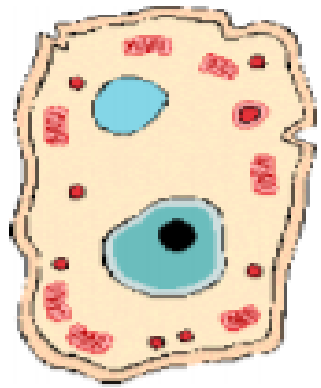
Boy holding hot beaker

He could burn his hand

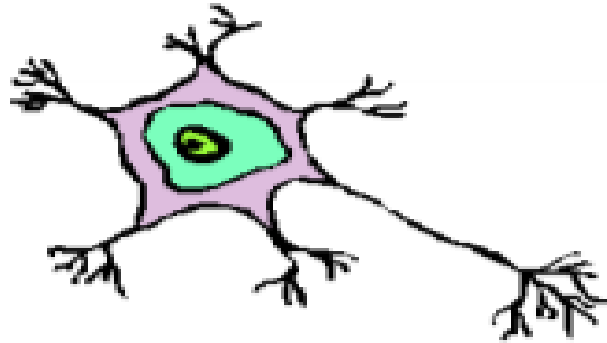
Lab Rules

Use the dangers you have spotted to create a poster of 10 rules for a safe lab.

Cells Word Search- Can you find the words linked with Cells?



Cells



T L F O D O O L B E Z E T E Y
 T U B I R R A E N O R U E N C
 S M D A U E S U E L C U N Y Y
 C T L L T R E B A L S Y E D T
 E T H O I S E I P O C T D T O
 L O T E L C N S S S T S I C P
 O L U X A O A L C P L A V O L
 U A O L I L R L S E E L I N A
 C C R L L E B E A C R P D T S
 A A G E E U M C N E A O V R M
 V T A C H S E E O L Z R L O E
 L A N E T S M L E L A O O L U
 R C H Z I I W A L L N L E P P
 I U N L P T E K M R O H B O R
 L A P N E N B U C A O C H L J



WORD LIST

ORGAN	TISSUE	CELL
MEMBRANE	CYTOPLASM	NUCLEUS
CHLOROPLAST	VACUOLE	NEURONE
EPITHELIAL	CELL	DIVIDE
BLOOD	COPIES	CELL
WALL	CONTROL	

Cells Glossary - Can you find the definitions (meanings) of these key words?

Key word	Definition	Key word	Definition	Key word	Definition
Organ		Cell Wall		Nucleus	
Cell Membrane		Cell Tissue		Neurone	
Chloroplast		Cytoplasm			
Epithelial Cell		Vacuole			
Red Blood Cell		White Blood Cell			

Key Scientific Words - These are key terms used in science to carry out an experiment. Try to match up the keyword with its definition.

You can either connect them with a line or match the letter to the number, good luck!

- | | | |
|------------------------|---|---|
| A Hypothesis | The thing you choose to change in an experiment to see what effect it has. | 1 |
| B Method | Everything kept the same in an experiment so they cannot change your results. | 2 |
| C Independent variable | A result in an experiment that is very different to all others and could be wrong. | 3 |
| D Dependant variable | A review of a practical that discusses each part of the practical and suggests ways it could be improved next time. | 4 |
| E Control variable | An idea that can explain certain facts or answers. | 5 |
| F Anomaly | A review of a practical that discusses your results and decides whether a hypothesis was correct. | 6 |
| G Conclusion | A set of instructions to follow to find out if an idea is correct or not. | 7 |
| H Evaluation | The thing you measure in an experiment to see what changes happen. | 8 |

A	B	C	D	E	F	G	H

5	7	1	8	2	3	6	4
A	B	C	D	E	F	G	H

Home Experiment 1 - Investigate Decomposition of Food



Aim: Find out what conditions around the house cause bread to go mouldy the quickest.

Hypothesis: Which piece of bread do you think will go mouldy the quickest and why?

I think the bread in/near...

Method:

1. Cut a slice of **bread** into 4 equal slices.
2. Place the bread on some kitchen roll and place it in different places around the house.
(e.g. by a window, in the airing cupboard, somewhere dark, in the fridge)
3. Check on the bread each day and note down how many days it takes for you to see some mould on it.

Results:

Location

Number of days

Location	Number of days

Conclusion: the results from my experiment show...

Home Experiment 1 - Investigate Decomposition of Food

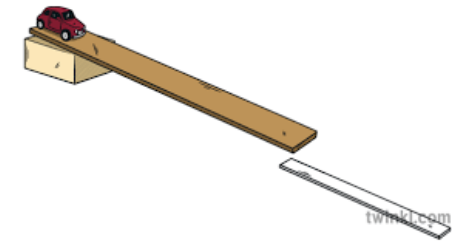
Variables:

1. What was the independent variable (what was changed) in this experiment?
2. What was the dependent variable (what was measured/recorded) in this experiment?
3. What was the control variable (what was kept the same) in this experiment?

Evaluation:

1. Why was the bread cut to the same size?
2. How could you have improved this experiment if you did it again? What would you change?

Home Experiment 2 - Build a ramp to investigate speed



Aim: Find out How the height of a ramp affects the speed of an object rolling down it.

Hypothesis: How do you think making the ramp steeper will affect the speed of an object rolling down it?

I think the higher the ramp...

Method:

1. Place a **ramp** on some **books**. Measure the height with a **ruler**.
2. Hold an object (e.g. a car or a ball) at the stop of the ramp.
3. Let go of the object and start timing with a **stop watch**.
4. Stop the stopwatch when the object gets to the bottom.
5. Repeat by making the ramp higher by a few book and measure the new heights each time.

Results:

Height (cm)	Time taken to roll (seconds)

Conclusion: the results from my experiment show...

Home Experiment 2 - Build a ramp to investigate speed

Variables:

1. What was the independent variable (what was changed) in this experiment?
2. What was the dependent variable (what was measured/recorded) in this experiment?
3. What was the control variable (what was kept the same) in this experiment?

Evaluation:

1. Do you think using books to change the height was the best way or could it have been done differently?
2. How could you have improved this experiment if you did it again? What would you change?

Home Experiment 3 - Build a Volcano

And now for something a little different - this activity will take about 2 hours to complete with a gap of at least 24 hours between each stage.

Equipment needed - To make the volcano:

- Small plastic bottle
- Newspaper
- White glue
- Water
- Paints (mainly browns and reds)
- Glue brushes and paint brushes
- Scissors
-

Equipment needed - To make the eruption:

- Goggles
- Bicarbonate of soda
- Teaspoon
- White vinegar
- Beaker
- Red food colouring

Method - To make the volcano

1. Cut your newspaper into long strips.
2. Mix white glue and water to make a paste.
3. Soak the newspaper strips in the glue mixture, then, working from the bottom up, apply the newspaper strips to your bottle.
4. Build up the layers to create a volcano shape - you'll need to add more strips to the bottom to make it wider.
DO NOT COVER THE HOLE OF THE BOTTLE.
5. Allow to dry completely for 24 hours.

Method - to make the eruption:

1. Paint your volcano to give it a realistic look.
2. When you are ready to erupt your volcano add 4 teaspoons of bicarbonate of soda to the bottle.
3. Pour 100ml of white vinegar into a beaker and add a small amount of red food colouring.
4. **IF YOU WANT TO TAKE PICTURES OR RECORD YOUR ERUPTION, NOWS THE TIME TO GET READY.**
5. Quickly pour the vinegar into the bottle and watch the eruption

Home Experiment 3 - Build a Volcano

Add a picture of what your volcano looked like.

Home Experiment 4 - Choose Your Own Experiment

Watch this video on Youtube: Easy Science Experiment for Kids- Mr. Duck
<https://www.youtube.com/watch?v=McVpXiSttnU&feature=youtu.be>

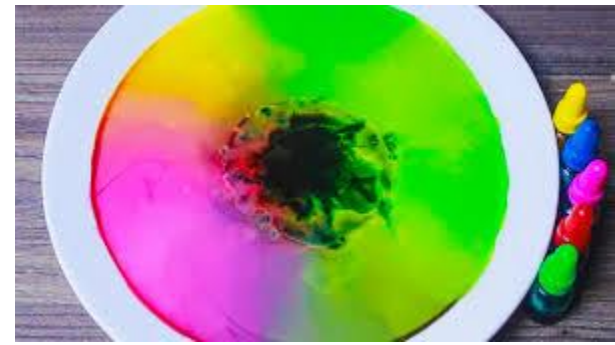
Select one of the experiments to do (my personal favourite is the build your own lava lamp (starts at 2:55)).

You are going to try and make a method for that experiment so that someone else can do it at home as well.

Remember to include:

1. Equipment list (what you used) and amounts of each substance use.
2. The method - what steps they should do the experiment in. (each step should be simple and clear to follow)

Bonus: Include pictures of each step as you do them and a picture of your results!



Name of Experiment -

Equipment List:

Method:

Name of Experiment -

Results:

We can't wait to see you all very soon!

