

ANSWER THE QUESTIONS WITH SKETCHES AND NOTES. CLICK ON EACH 'DESERT PLANT' FOR HELPFUL LINKS.

# BASIC ELECTRONIC COMPONENTS - KNOWLEDGE MAP

## PART ONE

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS <https://www.facebook.com/groups/254963448192823/> www.technologystudent.com © 2020 V.Ryan © 2020

1. NAME AND PASTE AN IMAGE OF THE VARIOUS COMMON SIZES OF ALKALINE BATTERY.

WHY ARE RECHARGEABLE BATTERIES BETTER THAN THE DISPOSAL TYPE?



2. WHAT ARE BUTTON CELLS? INCLUDE GENERAL USES AND PASTE AN IMAGE.



3. WHAT ARE LEDs? INCLUDE AN IMAGE AND ITS ELECTRONIC SYMBOL. ALSO, DESCRIBE TYPICAL USES.



4. WHAT IS A PUSH SWITCH? INCLUDE AN IMAGE AND SYMBOL. DESCRIBE HOW IT WORKS.



5. WHAT IS A TOGGLE SWITCH? INCLUDE AN IMAGE. EXPLAIN HOW IT WORKS.



9. WHAT IS THE FUNCTION OF ELECTROLYTIC AND CERAMIC CAPACITORS? INCLUDE IMAGES OF BOTH TYPES OF CAPACITOR.



8. WHAT IS THE REASON FOR THE COLOURED BANDS ON A RESISTOR? INCLUDE A DIAGRAM TO SUPPORT YOUR ANSWER.



7. WHAT IS THE MAIN PURPOSE OF A FIXED RESISTOR? INCLUDE A SIMPLE CIRCUIT DIAGRAM SHOWING ITS USE.



6. WHAT IS THE FUNCTION OF A TYPICAL DIODE? INCLUDE A LABELLED SKETCH AND ITS ELECTRONIC SYMBOL.



10. NAME THE TWO COMMON TYPES OF TRANSISTOR. DRAW A LABELLED DIAGRAM OF EACH ONE. WITH THE AID OF A CIRCUIT DIAGRAM, DESCRIBE A TYPICAL USE.



11. WHAT IS AN LDR? HOW DOES AN LDR WORK? INCLUDE A SKETCH / DRAWING, TO SUPPORT YOUR EXPLANATION.



12. WHAT IS A THERMISTOR? WHAT HAPPENS TO IT WHEN THE TEMPERATURE INCREASES AND DECREASES??



13. EXPLAIN THE FUNCTION OF A THYRISTOR, IN A 'STEADY HAND GAME'. INCLUDE A CIRCUIT DIAGRAM.



14. WHAT IS A RELAY? INCLUDE A DIAGRAM SHOWING HOW IT LOOKS WITH ITS PLASTIC CASE REMOVED.

