

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

BASIC ELECTRONICS - KNOWLEDGE MAP

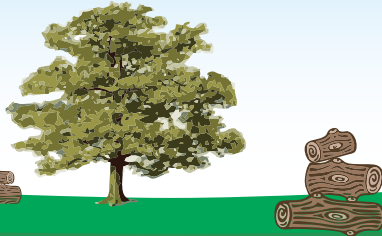
PART TWO

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

1. SKETCH AND EXPLAIN A SIMPLE 'SERIES' CIRCUIT.



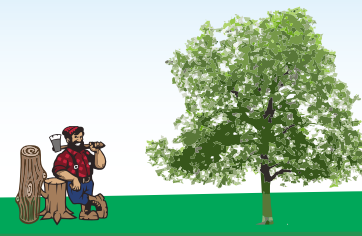
2. SKETCH AND EXPLAIN A SIMPLE 'PARALLEL' CIRCUIT.



3. EXPLAIN THE WAY ELECTRICITY FLOWS THROUGH A ZENER DIODE. Support your explanation with a simple circuit drawing.



4. WHAT IS THE DIFFERENCE BETWEEN ANALOGUE AND DIGITAL TEST INSTRUMENTS? Include an image of each type.



5. WHAT IS A DARLINGTON PAIR? WHAT IS ITS FUNCTION?

Include a circuit diagram to support your explanation.



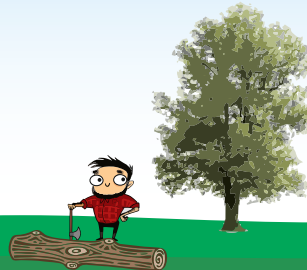
10. WHAT IS 'OHMS LAW'? Include one example calculation.



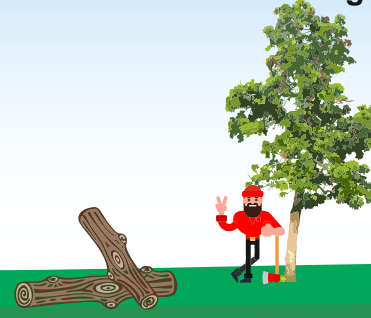
9. WHAT ARE SI UNITS? DRAW / WRITE A TABLE REPRESENTING SI UNITS.



8. EXPLAIN HOW A POTENTIAL DIVIDER 'SPLITS' VOLTAGE. Include a diagram / circuit diagram.



7. WHAT IS A POTENTIOMETER / VARIABLE RESISTOR? Include an image.



6. DESCRIBE THE ROLE OF A PRESET RESISTOR, IN A SIMPLE LIGHT SENSING CIRCUIT. Include a circuit diagram AND an image of a preset resistor.



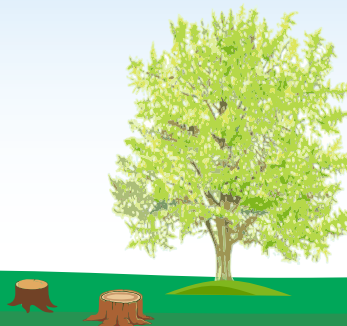
11. WHAT IS THE DIFFERENCE BETWEEN ANALOGUE AND DIGITAL SIGNALS? Include a diagram of each signal.



12. WHAT IS A 'CLOSED SYSTEM'? Include a labelled diagram.



13. WHAT IS AN 'OPEN SYSTEM'? Include a labelled diagram.



14. INTEGRATED CIRCUITS ARE ESSENTIAL IN OUR WORLD. WHAT ARE THEY?



15. EXPLAIN THE BASIC FUNCTION OF A 555 INTEGRATED CIRCUIT. Include a diagram.

