Outcome-Based Student Self Assessment

Student Name:_____ **Course: Science 10F** **Unit: Static Electricity**

Outcomes & Examples	Green/Red/ Yellow?	Student's Action Plan What will you do to achieve the outcome? (check all that apply)	Follow Up -What have you done? -Is the outcome achieved?
Outcome: Models of static electricity. Include: One-Fluid, Two-Fluid, and Particle Models..		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Describe each of the models and name the scientist who came up with each.			
Outcome: Laws of attraction and repulsion.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
List the three laws of attraction and repulsion.			
Outcome: Methods of charging. Friction		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Describe, using diagrams how an object becomes charged by friction.			
Outcome: Methods of charging. Contact		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Describe, using diagrams how an object becomes charged by contact.			

Outcomes & Examples	Green/Red/ Yellow?	Student's Action Plan What will you do to achieve the outcome? (check all that apply)	Follow Up -What have you done? -Is the outcome achieved?
Outcome: Methods of charging. Induction		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Describe, using diagrams how an object becomes charged by induction.			
Outcome: Detecting Charges using electroscopes. Include movement of electrons.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Show, using diagrams, how an electroscope can be charged by contact and induction. Show the movement of electrons in the electroscope, and the transfer of electrons (if any).			
Outcome: Applications of electrostatics. Lightning & Lightning Rods		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Describe how lightning is formed using diagrams. Explain how a lightning rod works.			
Outcome: Applications of electrostatics. Electrostatic Precipitators, Electrostatic Spraypainting Photocopiers		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Choose one of the applications of electrostatics and describe how it works (use diagrams wherever possible).			

Outcomes & Examples	Green/Red/ Yellow?	Student's Action Plan What will you do to achieve the outcome? (check all that apply)	Follow Up -What have you done? -Is the outcome achieved?
Outcome: Electrophorus		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Explain, using diagrams, how an electrophorus, stores and transfers electric charge.			

Outcome-Based Student Self Assessment

Student Name:_____ **Course: Science 10F** **Unit: Current Electricity**

Outcomes & Examples	**Green/Red/ Yellow?**	**Student's Action Plan** What will you do to achieve the outcome? (check all that apply)	**Follow Up** -What have you done? -Is the outcome achieved?
Outcome: Define Current as the flow of electrons		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Create an analogy to describe the concept of current.			
Outcome: Solve problems using $I = \frac{Q}{t}$		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Find the amount of time it takes to shock a robber with a taser if you need 0.8 Coulombs of charge and the taser is rated at .3 Amps			
Outcome: Define voltage as the amount of energy per charge.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Create an analogy to describe the concept of voltage.			
Outcome: Solve problems using $V = \frac{E}{q}$		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
What is the energy in a 12 volt that has 2 coulombs of charge flowing.			

Outcomes & Examples	Green/Red/ Yellow?	Student's Action Plan What will you do to achieve the outcome? (check all that apply)	Follow Up -What have you done? -Is the outcome achieved?
Outcome: Identify the five sources of electrical energy, and give an example of each.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Identify the five sources of electrical energy, and give an example of each.			
Outcome: Describe resistance using the particle model of electricity		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Create an analogy to describe the concept of resistance.			
Outcome: Draw the symbols for the parts of a schematic circuit diagram.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Draw the symbols for the parts of a schematic circuit diagram (cell, battery, switch, bulb, resistor, ammeter, voltmeter)			
Outcome: Diffferentiate between a series and parallel circuit.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	

Compare and contrast parallel and series circuits.

Series (Differences)	Similarity	Parallel (Differences)

Outcomes & Examples	Green/Red/ Yellow?	Student's Action Plan What will you do to achieve the outcome? (check all that apply)	Follow Up -What have you done? -Is the outcome achieved?
Outcome: Draw a schematic diagram of a series and parallel circuit.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Use 2 cells, 4 resistors, and a switch to draw: **a) A series circuit** **b) parallel Circuit**			
Outcome: Explain how ammeters and voltmeters are wired in a circuit to measure current and voltage		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
How are ammeters and voltmeters wired in a circuit in order to measure current and voltage. **In your previous circuits, draw an ammeter measuring the total current, a voltmeter measuring Vrise, and a voltmeter measuring Vdrop.**			
Outcome: Compare voltage and current in series and parallel circuits.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
If the current is the same everywhere in a cicuit, it is a _____ (parallel/series) circuit, if the current in each branch adds up to the total current it is a _____ (parallel/series) circuit. If the voltage is the same in every resistor, it is a _____ (parallel/series) circuit, if the voltage in each resistor adds up to the voltage in the battery, it is a _____ (parallel/series) circuit.			
Outcome: Solve problems using Ohm's Law		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
If a circuit has a resistance of 8 Ohms, and a voltage of 12 Volts, find the current in the circuit.			

Outcomes & Examples	Green/Red/ Yellow?	Student's Action Plan What will you do to achieve the outcome? (check all that apply)	Follow Up -What have you done? -Is the outcome achieved?
Outcome: List the major components used in household wiring.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Define/Describe the following: **a) Fuse** **b) Cicuit Breaker** **c) Black Wire** **d) White Wire** **e) Ground Wire** **f) Polarized Plugs** **g) Polarized Outlets** **h) GFI's**			
Outcome: Define power as energy per unit time, and solve problems using P=E/t and P=IV		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
If a hairdryer uses 1400 watts of power on a 110V circuit, what is the current? **If a PSP uses 1000 Joules of energy if it is on for 2 minutes, find the power rating of the PSP.**			
Outcome: Read a Hydro Meter		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
Paste Hydro Meter here!			
Outcome: Solve problems involving cost of electricity.		☐ Read your notes ☐ Seek extra help ☐ Ask a friend ☐ Check your text/internet ☐ Sign up for a Peer tutor ☐ Make study notes	
A home theater system uses 1500 W of power. If you watch a movie for 90minutes, how much will it cost if electricity costs 6 cents/kWh?			