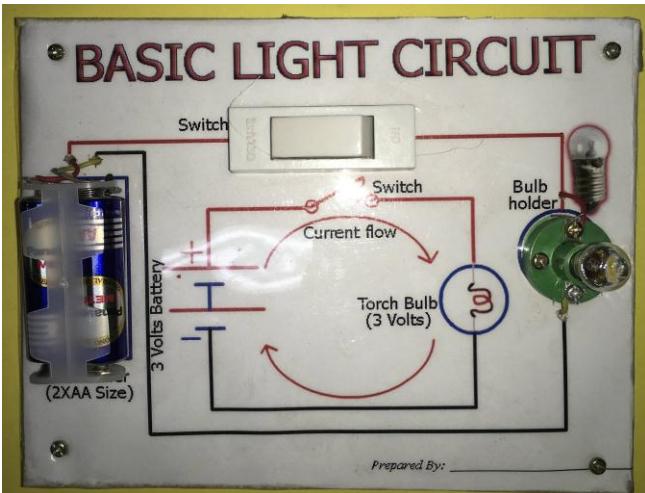




KENDRIYA VIDYALAYA SANGATHAN

RAIPUR REGION



सत्र 2021-22 के लिए VI से X कक्षा के लिए कार्यअनुभव शिक्षा के लिए शैक्षणिक योजना

ACADEMIC PLAN FOR WORK EDUCATION FOR CLASSES VI TO X FOR THE SESSION 2021-22

VENUE :: KENDRIYA VIDYALAYA NO.2 , RAIPUR (C.G.)

ACADEMIC PLAN

OUR PATRONS



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Assistant Commissioner, KVS RO, Raipur



Ms. Chandana Mandal,
Deputy Commissioner, KVS RO, Raipur



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Assistant Commissioner , KVS RO, Raipur

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1. Mr. Tanveer Ahmad, TGT(WE) , KV NO.2 RAIPUR



Message



1. It's a matter of great pride that Kendriya Vidyalaya Sangathan, Raipur Region is entrusted with an opportunity to prepare an Academic Plan for the four phases of NEP 2020 which needs to be adopted from this academic year 2021-22.
2. With the pandemic still hovering and the recent reports suggesting that the young population is more vulnerable group in the third wave, physical presence of students in the Vidyalaya during the ensuing session 2021-22 seems a distant possibility. Hence, in order to ensure seamless academic transaction during the current session 2021-22, this action-plan will definitely help to focus on overall well-being of the students, Pedagogical requirements as per NEP, specially FLN, Outcome Based Learning, Self – Regulated Learning, Varied forms of Learner Engagement and assessment, Multi - Disciplinary Learning etc.
3. I extend my best wishes to all the stakeholders who would be involved in this awe-inspiring task of preparation of Annual Plan & ensuring it reaches to the grass root level, creating adequate awareness, motivation & competencies, & thereby based on our strengths and experience of online teaching will ensure new ways of teaching-learning and assessment in tune with the guiding pillars of NEP i.e. Access, Equity, Quality, Affordability & Accountability.

Ms. Chandana Mandal,
Deputy Commissioner,
KVS Regional Office, Raipur

KENDRIYA VIDYALAYA SANGATHAN :: RAIPUR REGION

ACADEMIC PLANNING FOR WORK EDUCATION IN CLASS VI to X FOR SESSION 2021-22

1. **Work Education** is viewed as purposive and meaningful manual work, organized as integral part of the learning process and resulting into goods or services useful to the community, besides the pleasure of self-fulfillment. It should be an essential component at all stages of education and must be provided through a well-structured and graded programme. The competencies to be developed in this field should include knowledge, understanding skills and values through need-based life activities. Major categories of work, which need to be specifically stressed include: a) Work pertaining to the needs of individual, such as health, hygiene, clothing, cleanliness, etc; b) Work at home to be performed as a member of the family; c) Work in the classroom, school and in the out of school activities integrated with school life; d) Work as a learning experience through other subjects such as physical education, art education, social studies, science and others; e) Work in the community focused on selfless service; f) Work relating to vocational development, production, social usefulness and exploration of the opportunities and care pathways.
2. More specifically, Work Education provides the basis for building up proper attitudes towards work developing favourable work values and habits, imparting necessary knowledge related to work, and developing appropriate work skills, which can help the children to become productive and self-reliant in meeting their day-to-day needs and those of their families and communities. Work Education can further enable the children to discover their real interests and aptitudes which would be helpful to them in selecting suitable courses of study and occupations later on. Since work occupies a prominent position in the life and wellbeing of an individual and a country, Work Education should have a pride of place in the school curriculum as a means of achieving self-reliance and as a preparation for adult life.
3. The most important goal of education is to prepare children for life as adults and to impart knowledge, skills, qualities and attitudes which make them self-supportive individuals and productive citizens.
4. Now, We are taken into account Work Experience (Education) Syllabus of KVS designed in 2009 specifically on Electrical and Electronics Skills due to qualification of Teacher and now we are also includes value education part of CBSE and NCERT syllabus on work education in Academic Planning of Work Education for the session 2021-22.
5. We prepared Academic plan for Work Education Class wise from Class VI to X as per KVS RO Raipur region required .

KENDRIYA VIDYALAYA SANGATHAN :: RAIPUR REGION
ACADEMIC PLANNING FOR WORK EDUCATION IN CLASS VI SESSION 2021-22

S.NO.	MONTH	CONTENT	PRACTICAL	Learning outcomes	Co-relation with Art-integration	Home Assignment	OTHER THAN ELECTRICAL & ELECTRONIC ACTIVITY	PROJECTS LINKS	PERIOD REQUIRED
01.	APRIL	1. Scope of Work Education 2. Safety Precaution while working on Electrical System. (Lesson Plan) https://drive.google.com/file/d/14pmgtBqsEFs7VDEj5WXg0zbjW8oQGaHY/view?usp=sharing	Disassembling & assembling of a holder, know its part and re fit the same. https://youtu.be/t5Kph-qOboQ	Develop skills for the application of problem solving methods .Under Stand About Work Education	It helps student to aware towards basic safety rule in every field.	Draw diagrams of safety tips.	Making Mask. https://www.youtube.com/watch?v=tIbYUaUpaZY	https://youtu.be/VnLFTK0q-FE	8
02.	MAY-JUNE	1. Scope of Work Education 2. Safety Precaution while working on Electrical System. (Lesson Plan) https://drive.google.com/file/d/14omgtBqsEFs7VDEj5WXg0zbjW8oQGaHY/view?usp=sharing	Disassembling & assembling of a switch know its part and re fit the same https://youtu.be/8efNy8zgl38	Develop skills for the application of problem solving methods .Under Stand About Work Education	It helps student to aware towards basic safety rule in every field.	Draw diagrams of safety tips.	Making of Wall Hanging https://www.youtube.com/watch?v=lC3mLguALU0	https://youtu.be/zgTw8rFtKno	2
03.	JULY	1. Identification of various types of electrical accessories and components. 2. Awareness and recognition of Electrical appliances. (Lesson Plan) https://drive.google.com/file/d/1sD2JzleU40A5bnj8u1gAvhMaeHpXy6c/view?usp=sharing	Disassembling & assembling of the parts of a tester and refit the same https://www.youtube.com/watch?v=A0DLhXqGqBs	Disassembling & assembling of the parts of a tester and refit the same	Students familiar about the Electrical accessories and components used for house wiring.	It helps to prepare Electrical gadgets for science.	Display Board Decoration Theme Covid-19 Safety & Precautions. https://www.youtube.com/watch?v=Q2rTciW4NZI	https://www.youtube.com/watch?v=482Nr5SINlY&t=16s https://www.youtube.com/watch?v=ecX0igOoGM	8
04.	AUGUST	1.Precaution to be observed while carrying tools from one place to another. 2.Electrical Tools and their uses. (Lesson Plan) https://drive.google.com/file/d/1mn0sjpixKNAk-iNlx1TCWz4TX-VsYVAI/view?usp=sharing	Assemble a simple circuit of a torch bulb, two cells and wire https://youtu.be/dnPm2xifcaQ	Assemble a simple circuit of a torch bulb, two cells and wire	Know about the uses of different tools. (Electrical and plumbing tools)	It helps student to know Electrical and plumbing tools in a daily life.	Making Rakhi https://youtu.be/FPo2kY_5fF4	https://youtu.be/Upax5u65nIU https://youtu.be/BgHq8QD6YPo https://www.youtube.com/watch?v=Upax5u65nIU&t=61s	8
05.	SEPTEMBER	1.Study of accessories like Switch, holder, Plug sockets etc. 2.Identification of wire joints. (Lesson Plan) https://drive.google.com/file/d/1RM0d47BRYM5G485	Test an insulator with a series board and see the bulb is not glowing https://youtu.be/s6	Test an insulator with a series board and see the bulb is not glowing	Students will be able to learn and identify different wire joints.	Students may use different types of wire for science project.	Making Paper Flowers. https://www.youtube.com/watch?v=iDJU-PU9BJ0	https://youtu.be/gWkmCS-weHY	8

		X07kl6f5InoK7WNL5/view?usp=sharing	XP6pAHjvM						
06.	OCTOBER	1.Line Tester—construction and uses. 2.Assembling of a test lamp and its use. (Lesson Plan) https://drive.google.com/file/d/1G1Bdsc-n7UQF6U_iAAjs5WaQVB1COyo/view?usp=sharing	Connect a bulb in holder. https://youtu.be/UHOGv7pHUoM	Connect a bulb in holder.	Students will learn about line tester and its parts.	It help students to prepare and testing of science project.	Making Greeting Card for Dussehra . https://www.youtube.com/watch?v=6ATnKZ5z7vU	https://youtu.be/A0DLhXqGqBs	8
07.	NOVEMBER	1.Sources of Electricity. 2.Study on electrical terms and their definition such as current , voltage etc. (Lesson Plan) https://drive.google.com/file/d/1xXffhu3Gs6Dcwu1C1rNTJ8v08DSXZR4I/view?usp=sharing	Make the Connection of a simple circuit with and see the bulb is glowing. https://www.youtube.com/watch?v=oDUAvaxsK1g	Make the Connection of a simple circuit with and see the bulb is glowing.	Know different types of sources of Electricity like renewable and non-renewable.	It helps student to prepare working science model.	Making Greeting Card for Deepawali https://www.youtube.com/watch?v=YnvjdSmc04k	https://youtu.be/15MY7abeCDk	8
08.	DECEMBER	1.Introduction to cell, battery and generator etc. 2.Assembling of a simple electrical circuit. (Lesson Plan) https://drive.google.com/file/d/1_wclQxggw3C_yBYCCW8QVTb8lFtB1AbVT/view?usp=sharing	Parts of Cell. https://youtu.be/uBLCiplPOA	Parts of Cell.	Know the different types of Cell(Primary and Secondary).	It helps student to prepare Social Science model.	Making Greeting Cards for Christmas New Year https://www.youtube.com/watch?v=9yE0Z0Ue9Mk	https://youtu.be/oDUAvaxsK1g https://www.youtube.com/watch?v=9gu2X87xR3A	8
09.	JANUARY	1.Conductors and Insulators. (Lesson Plan) https://drive.google.com/file/d/1iLxcwpoYm8_GBbFNE4UfhznzpBemDfKe/view?usp=sharing https://youtu.be/lZh3VUJEEOc	Testing of Conductors and Insulators https://youtu.be/lZh3VUJEEOc	Testing of Conductors and Insulators	Students will understand conductors and Insulators and their properties.	Co-relate with conductivity chapter.	Making Newspaper Cap https://www.youtube.com/watch?v=rlyXdq3CAfo	https://youtu.be/PafSqL1riS4	8
10.	FEBRUARY	1.Domestic appliances. (Lesson Plan) https://www.youtube.com/watch?v=NmFVYxr_eT0	Draw sketch of domestic appliances used in your home. Making of table lamp. https://www.youtube.com/watch?v=5C7UYXhQmA	Disassembling & assembling of a switch know its part and re fit the same	Students will know about the appliances used in their home.	Know the applications of domestic appliances	Making of Decorative Paper Ball https://www.youtube.com/watch?v=oA6lcycw0g	https://youtu.be/3JaRPQkGMk	6
11.	MARCH						Session Ending Examination		

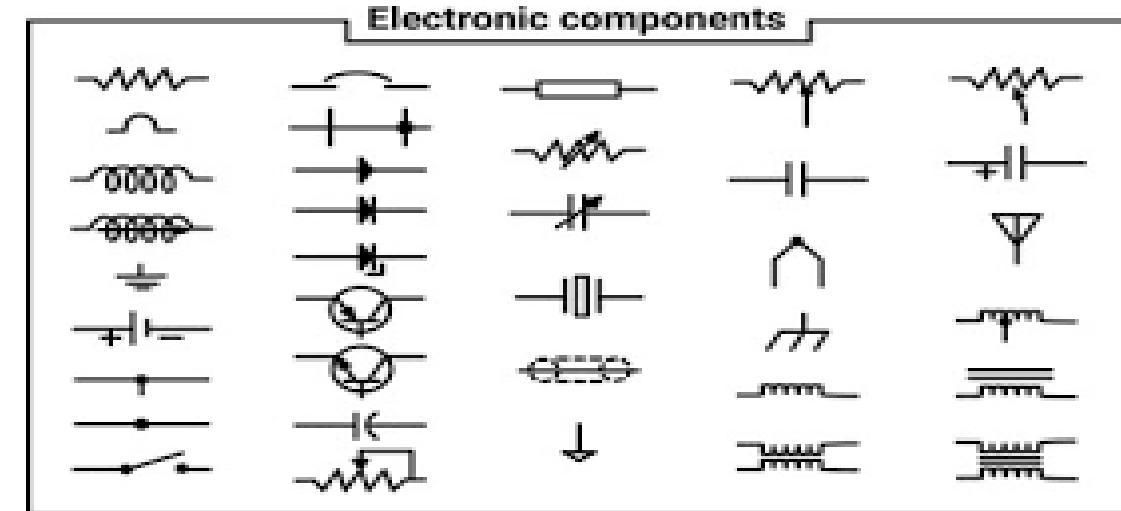
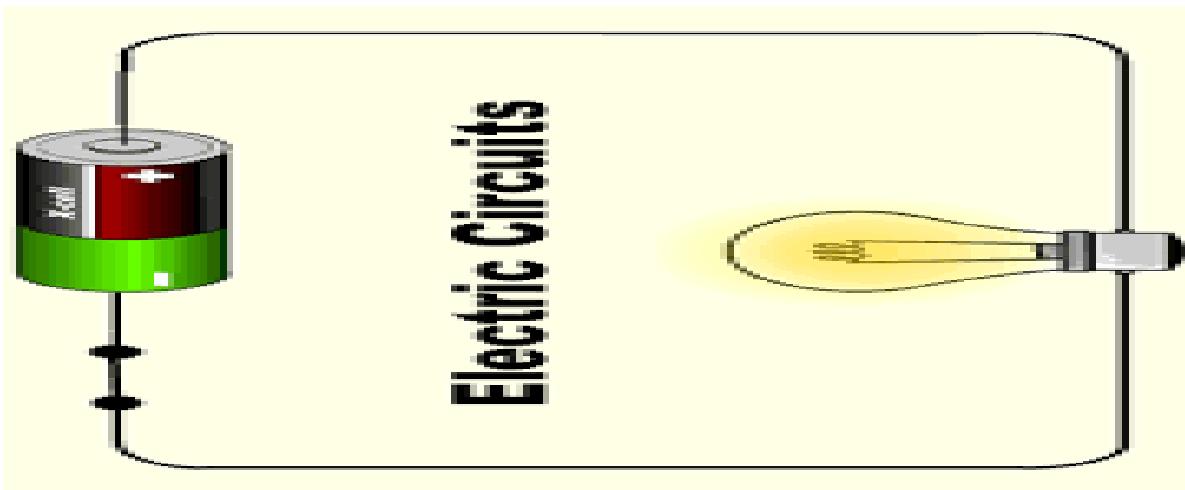
Session Ending Examination

KENDRIYA VIDYALAYA SANGATHAN :: RAIPUR REGION
ACADEMIC PLANNING FOR WORK EDUCATION IN CLASS VII SESSION 2021-22

S.NO.	MONTH	CONTENT	PRACTICAL ACTIVITY	Learning outcomes	Co-relation with Art-integration	Home Assignment	OTHER THEN ELECTRICAL & ELECTRONIC ACTIVITY	PROJECTS LINKS	PERIOD REQUIRED
01.	APRIL	Introduction of Alternating Current & Direct Current Sources of AC & DC Use of AC & DC Static and dynamic electricity (Lesson Plan) https://drive.google.com/file/d/1NLC6nsxgtCuRbev8jT6dfKShR6kMkYk5/view?usp=sharing	Identification of AC and DC https://youtu.be/NsnO_UgGZId4	Student know about different types of electricity	It help in studying science and making project	Differentiate between A.C and D.C.	Origami : Paper Boat Making https://www.youtube.com/watch?v=b3QzpbL8-Tg	https://youtu.be/_6W_kCqB-ihM	08
02.	MAY-JUNE	Brief idea of different kinds of Power generating stations viz. thermal, Hydroelectric, solar, nuclear etc. (Lesson Plan) https://drive.google.com/file/d/1NLC6nsxgtCuRbev8jT6dfKShR6kMkYk5/view?usp=sharing	Thermal Power Plant Project work https://youtu.be/Ih5_7shyLU4	Enhance the knowledge about types of power generating station	It help in science and social science subject	Fuel used in different types of power plant	Yoga https://youtu.be/yBcyEbBWvRQ https://www.youtube.com/watch?v=s2NQhpFGIOg	https://www.youtube.com/watch?v=VytAssXVCCA	04
03.	JULY	Matter, molecule, atom Elements & compounds Atom , Molecule (Lesson Plan) https://drive.google.com/file/d/1yCUNtZtv3qYP9vczgUcfmyrk07JLwBKe/view?usp=sharing	Project wok on Structure of Atom https://youtu.be/iOFmKRYmmuA https://youtu.be/eSV6pEhX7vM	Know about the structure of material available in the universe	Enhance knowledge in making circle, Oval shape in maths and as well in science and social science.	Draw the structure of Atom.	Hanging Garden: Vertical Garden using West Pet Bottles https://youtu.be/G43pdIxMGN8	https://youtu.be/ZA09Le34BjU	08
04.	AUGUST	Definitions of electrical terms Charge, kinds of charge, characteristics of charge, unit etc. Potential, potential difference (brief idea only), unit, Voltmeter Current, flow of electron, unit, Ammeter. (brief idea only) Resistance, unit, Ohm meter. (brief idea only) (Lesson Plan) https://drive.google.com/file/d/14aycuuhDhRHxmRHzlouaB4SyngtYjo8z/view?usp=sharing	Chart making for Electrical Term https://youtu.be/z8qfhFXjsrw https://youtu.be/kYwNj9uauJ4 https://youtu.be/8jB6hDUqNOY	Know different electrical quantity and definitions	Measuring unit of electrical quantity	Write the Units of electrical Quantity.	Rakhi Making https://youtu.be/U_xkZYYG64	https://youtu.be/NntY-D6ySz0	08

05.	SEPTEMBER	Electromagnet: Making a simple circuit of electromagnet by using soft iron and copper wire. (Lesson Plan) https://drive.google.com/file/d/1a_Dt6nJI6sgJ758sS8YFTJXlaD52X12K/view?usp=sharing	Making of Electromagnet at home https://youtu.be/OtnViCWLPI	Student differentiate between magnet and electromagnet	Develop technical skill	Draw the diagram of electromagnet.	Paper Craft Flower Making Pen Stand Flower Pot Lamp Shad Topi Making https://youtu.be/iFLfuTsyC0k https://youtu.be/moBE6c4DN-A	https://www.youtube.com/watch?v=xJUSsp7WkhY&t=24s	08
06.	OCTOBER	CELL Primary Cell, Secondary cell. Different types of cells: Dry cell, Voltaic cell , Lead acid Battery, solar cell; chemical reactions in such cells, drawing etc. Difference between cell and battery (Lesson Plan) https://drive.google.com/file/d/1zc_Mj35fEjpQ3jjKTuiajgwKVvydO/view?usp=sharing	Making of simple project by using Cell https://youtu.be/V6RfkVxHaYo	Know and differentiate between cell and battery	Laboratory knowledge	Draw the diagram of different cell and battery	Wax Candle Making https://youtu.be/rSA_ipHry78	https://www.youtube.com/watch?v=PXNKKcB0pI4	08
07.	NOVEMBER	Electrical measuring devices and their uses Idea of Electric Circuit (Lesson Plan) https://drive.google.com/file/d/1li5rrcq3V83CeKyfjSIkwNWp7Y5P/view?usp=sharing	Study of line tester to indicate current https://youtu.be/qQvG0esyFBI	Types of electrical measuring devices and how to measure	Enhance knowledge of measuring devices	Draw the diagram of measuring devices	Greeting Card https://www.youtube.com/watch?v=dmpplnHjDc4	https://www.youtube.com/watch?v=gkeJzRrwe5k	08
08.	DECEMBER	Electrical Circuits Open circuit, Closed circuit, short circuit diagram and explanation. Effects of short circuit (Lesson Plan) https://drive.google.com/file/d/1nQWu8p6-kzysfiDXBu8dkrNboEctU7p/view?usp=sharing	Making of Test lamp to find type of circuit https://youtu.be/z3q-XP-2Hco	Differentiate among the type of circuit	Connection to be made to make different types of project	Draw the diagram of different types of circuit	X Mass Star https://youtu.be/NFB0RboK-Q	https://www.youtube.com/watch?v=YLSVq-moKrs	08

09.	JANUARY	Phase Neutral & Earth Wire Functions of Phase wire and neutral wire, way of returning of current Earth wire, Importance, how it save us from accidents (Basic idea)(Lesson Plan) https://drive.google.com/file/d/14GYxSKtPx3FaD7u_g7iWiXS-Ets0mlwU/view?usp=sharing	Making Extension Board for identification of Phase , Neutral and Earth wire https://youtu.be/DT50o1qyhFM	Types of wire and their function in electrical system	Importance of wire used in house hold	Draw the simple circuit using colour for different types of wire	Pen Stand https://www.youtube.com/watch?v=vtZAYSt2dS0	https://www.youtube.com/watch?v=vtZAYSt2dS0	08
10.	FEBRUARY	Effects of electric current Heating effects, lighting effects, chemical effects etc. (Lesson Plan) https://drive.google.com/file/d/1LWK56b_heTz8jrz0y_osJAP1-O0xDW9/view?usp=sharing	Effect of electric current-How to make USB Fan from C.D. https://drive.google.com/file/d/1gZq9jMB0lIR1HznzpjCZqNyIlf3CzFfg/view?usp=sharing	Understand how to current produce heat and what is use of its	Students may use this function in various projects of different subject	Draw Chemical Cell Diagram	Flower Pot https://www.youtube.com/watch?v=pDo4WGvfuWI https://www.youtube.com/watch?v=44AhnH78Slc	https://www.youtube.com/watch?v=pDo4WGvfuWI https://www.youtube.com/watch?v=44AhnH78Slc	08
11.	MARCH	Electrical symbols Symbols of basic electrical items and terms (Lesson Plan) https://drive.google.com/file/d/19QvTMHzp5bYZiW55L5toygxBsceRfe/view?usp=sharing	Simple Electrical circuit using symbol. https://youtu.be/j0zf-otH3cY	Know about Signs of Symbols and its meaning	Helps them for using or solving problems	Prepare a Chart of Electrical Symbols	Paper Bag https://www.youtube.com/watch?v=pBiGez-SIXE https://youtu.be/9dYxs5sWkm8	https://www.youtube.com/watch?v=pBiGez-SIXE https://youtu.be/9dYxs5sWkm8	04



ACADEMIC PLANNING FOR WORK EDUCATION IN CLASS VIII SESSION 2021-22

S.NO.	MONTH	CONTENT	PRACTICAL ACTIVITY	Learning outcomes	Co-relation with Art-integration	Home Assignment	OTHER THEN ELECTRICAL & ELECTRONIC ACTIVITY	PROJECTS LINKS	PERIOD REQUIRED
01.	APRIL	Safety rules: • Electrical safety rules • Electrical Shock and its treatment (Lesson Plan) https://drive.google.com/file/d/1tt5QqlYtwUza6floSbAfslM6opxwdGg/view?usp=sharing	Practical on electric safety rule, shock treatment and first aid. https://youtu.be/7B5HvvWesxo	Knowledge of electrical safety rules and its treatment	Ensure safety while working on an electrical project work in various subjects	1. What are the safety rules while working on electrical system?	Book Binding at Home : To make your own Note Book https://youtu.be/5pH4B4MUz1U	https://youtu.be/zfCMFbAZjfQ	06
02.	MAY-JUNE	Continued..... • First aid to be observed in case of Electrical Shock (Lesson Plan) https://drive.google.com/file/d/1tt5QqlYtwUza6floSbAfslM6opxwdGg/view?usp=sharing	Practical on electric safety rule, shock treatment and first aid https://youtu.be/Qld84UtmFpE	Development of ability to provide first aid in Case of an electric shock	Development of first aid in an emergency situation	1. What is first aid? 2. What is an electric shock and its treatment?	Vertical garden Different shape and innovative ideas development https://youtu.be/DgHvEuFCAEU	https://youtu.be/ZY-WdRC_orU	06
03.	JULY	Fuse : Function, • Types of fuse, use and their diagram , • Importance of fuse • Possible accidents without a fuse. (Lesson Plan) https://drive.google.com/file/d/1xp0mOMKVzY2LAS3ubjVlx5WZ09Fgfmk/view?usp=sharing	Learning how to replace rewirable fuse https://youtu.be/eSOPIXXQ5_w	Knowledge of fuse and its importance in our day-to-day life and places of application.	Application of fuse in various type of of electrical and electronic circuit in order to protect it from any short-circuit condition in various subjects project work	1. What is the function of fuse? 2. Draw a diagram of fuse? 3. Which current is passed through fuse phase or neutral?	Origami Cube Rectangle, Pencil etc https://www.youtube.com/watch?v=VIcnllgo6pE https://youtu.be/AdFVMD3Joa0	https://youtu.be/H0SeGwdgG7Y	06
04.	AUGUST	House Wiring (Part A): Types of wiring , • Materials required for wiring. • Connection from Energy meter to switch board via distribution board and main switch. (Lesson Plan) https://drive.google.com/file/d/1Mp3gx4EVfQXpXDB_Fxfl2WZ_MNxcK/view?usp=sharing	Learn to calculate the value of a resistor by seeing its color code https://youtu.be/VRgAY-eDGd0	Development of knowledge of different types of house wiring and its application	Understand the wiring of an household and difference between phase,neutral and Earth wire in in Science subjects	1. Which connection is used in our domestic wiring series or parallel connection? 2. Draw a connection diagram of energy meter to switch board via distribution board and main switch	Yoga Bhujangasana Garudasana Shirshasana Vajrasana etc https://youtu.be/CPSDZhkBW4	https://youtu.be/srxGewy_hLU	06
05.	SEPTEMBER	Measuring Instruments: Identification and study of various types of resistors	Connection of three bubs in Parallel and	Development of knowledge to understand the	Apply the knowledge of measuring instruments while	1. Draw a neat diagram of ammeter	Wax candle making/ Handicrafts https://youtu.be/fS	https://youtu.be/-BSQajenJbc	06

		Study of Measuring Instruments. (Lesson Plan) https://drive.google.com/file/d/1ma-rc39Wp22ZYqVyylxpXONR0W_niCx/view?usp=sharing	learn its properties https://youtu.be/4yAl6u775Rs	importance of resistance and different type of measuring instrument	doing practicals to measure current,voltage, resistance etc	and voltmeter? 2. Define resistance?	eC-w0rr7Q		
06.	OCTOBER	Series Parallel Connection : <ul style="list-style-type: none">• Series connection resistance /Bulb• Parallel connection of Resistance / Bulb (Lesson Plan) https://drive.google.com/file/d/1rSRo51LaR0O9hkju6hmOpXhspmoNINB/view?usp=sharing	Connection of three bubs in series and learn its properties https://youtu.be/u0iErNYdtKI	Knowledge of series and parallel connection and why parallel connection is used in our household wiring	Apply knowledge while making an electric circuit in science practicals and ensure safe and proper handling of instruments	1.Draw a neat diagram of series and parallel connection by using a bulb? 2. Which circuit has same current in parallel connection or series connection?	Pen stand Dustbin from waste paper Wall hanging with waste materials https://www.youtube.com/watch?v=N_Oe2hZ9NYG8	https://youtu.be/u3cfW5RmKuw	06
07.	NOVEMBER	Electronics : <ul style="list-style-type: none">• Atomic structure , • Proton, neutron, Electron -- Properties • Orbita of electrons• Flow of electron (Why are the metals good conductor of electricity) (Why are the insulators poor conductors of electricity?)• Study of Electronic Components (Lesson Plan) https://drive.google.com/file/d/1n9sTpqM7VMar22ZNhiDLGzyU9jqA1FR/view?usp=sharing	Make a chart of periodic table and learn the Atomic number of different elements. https://youtu.be/mCMd73gBL0s https://youtu.be/wAelr3_sMto	To explain the atomic structure of an atom and understand how an electric current flows through conductor	Correlated with science subject to understand the atomic structure and flow of an electric current	1. Draw the atomic structure of hydrogen? 2. Why metals are good conductor of electricity?	Torch buy using diodes (n- type) https://www.youtube.com/watch?v=Hl4v1aUFWr	https://www.youtube.com/watch?v=Hl4v1aUFWr	06
08.	DECEMBER	Sources of energy : <ul style="list-style-type: none">• Fossil fuel, biogas, solar, hydel etc• Description of Hydro electric power station• Solar energy : Scope of use & problems. (Lesson Plan) https://drive.google.com/file/d/1f8Uuih0leU6r88DQ3tirtM6m6AuSz1V-/view?usp=sharing	Drawing block diagram of biogas plant and study its working principle https://youtu.be/thTl5w1OZek https://youtu.be/MYj13FB_lac	Understand the importance of fossil fuel, biogas and the generation of an electric current in a hydro power station	Helpful in preparing project models in various subject like Social Studies and science	1.Draw a neat diagram of biogas plant? 2. Scope of use of solar energy and its limitations?	Flower pot with fancy lights and decorations https://www.youtube.com/watch?v=eqBGTLaPvYo https://youtu.be/-PgZexzGn1U	https://www.youtube.com/watch?v=eqBGTLaPvYo https://youtu.be/-PgZexzGn1U	06

09.	JANUARY	<p><u>Study of Semi Conductor device</u></p> <p><u>Magnet :</u></p> <ul style="list-style-type: none"> • Types , • Use • Properties <p>(Lesson Plan)</p> <p>https://drive.google.com/file/d/1HY2rdnqnthWRIDzwOPQacSFcyQzSj5Za/view?usp=sharing</p>	<p>Hang a magnet and learn why it remains in N-S direction</p> <p>https://youtu.be/NhZF2CmKOH4</p>	<p>Understand the property of magnet and areas of its application</p>	<p>Use of magnet to draw magnetic lines and understand its properties in science practical</p>	<p>1. Draw the magnetic lines by using a magnet and small iron nail on a piece of paper?</p>	<p>Series and parallel connection by using battery and LED</p> <p>https://www.youtube.com/watch?v=6ArHBpZvD0</p>	<p>https://youtu.be/SCmZVk3GsQg</p>	06
10.	FEBRUARY	<p><u>Electromagnet :</u></p> <ul style="list-style-type: none"> • Electromagnet, difference between magnet and electromagnet <p>(Lesson Plan)</p> <p>PPT LINK Click here</p>	<p>Draw the magnetic lines of force with the help of a bar magnet and a compass.</p> <p>https://youtu.be/NWUGK8W-4JM</p>	<p>Development of knowledge to make an electromagnet and understand its working</p>	<p>Apply it in separating metals and non-metals in science subject</p>	<p>1. What are the difference between a permanent magnet and electromagnet?</p>	<p>Making of electromagnet by using battery,nail and copper wire</p> <p>https://www.youtube.com/watch?v=xJUSsp7WkhY</p>	<p>https://youtu.be/tUwNpOkL9KM</p>	06
11.	MARCH	PREPARATION OF WORK EDUCATION GRADE LIST							



ACADEMIC PLANNING FOR WORK EDUCATION IN CLASS IX SESSION 2021-22

S.NO.	MONTH	CONTENT	PRACTICAL	Learning outcomes	Co-relation with Art-integration	Home Assignment	OTHER THEN ELECTRICAL & ELECTRONIC ACTIVITY	PROJECTS LINKS	PERIOD REQUIRED
01.	APRIL	1. Safety device- Fuse (already in lower class), Circuit breakers (Earth leakage Circuit breaker, Miniature circuit breaker), Isolators (Two poles & Four poles) https://drive.google.com/file/d/1vPwol-210Nctv2VTyhgA67ziNqn522Xg/view?usp=sharing	1.Identification of different types of fuses like, AC fuses, DC fuses, Cartridge fuses, HRC fuses 2. Replacement of fuse wire in a blown fuse. 3.. Identification of blown Cartridge fuse by continuity testing or by multimeter https://www.youtube.com/watch?v=xAt5W6t6oec	Students will be able to identify different types of fuse, rewire a kit kat fuse and importance of safety devices	Making diagrams of fuses. three dimensional shapes of HRC and cartridge fuse	Identify types of fuse and MCBs used in your house. write the types of fuses in amplifiers	Making Paper Envelopes of different types https://www.youtube.be.com/watch?v=R6jwTSettlQ	https://youtu.be/FR16dbeBfko	08
02.	MAY-JUNE		Collection of seeds of different fruits , germination of seed and tree plantation. https://www.youtube.com/watch?v=8cBADeACAnc	Students will be able to learned germination of seed and grafting process	Landscaping of school garden	Collect and preserves the seeds of different fruits eaten at your home and make sapling from seeds	Making Paper Envelopes of different types https://www.youtube.com/watch?v=hBm8JhNakfA		08
03.	JULY	1. Earthing- Importance, Use, Types of earthing, diagrams (Lesson Plan) https://drive.google.com/file/d/181llwsRdaRI4XFdI9fkqmUpqGidhb/view?usp=sharing	Identification and Collection of materials required for earthing in house wiring. Earthing process https://www.youtube.com/watch?v=XO9Kh60z3fU	Students will be able to understand the role and importance of earthing in domestic wiring and how it can save our electrical appliances and life too.	Map designing of earthing in house wiring	Try to know which type of earthing is used in your house and other places	Making pen stand/ flower pot from old news paper (Best out of waste) https://www.youtube.com/watch?v=3MW4Pd7tU5k	https://www.youtube.com/watch?v=1f5fGLyorAQ	08
04.	AUGUST	Electromagnetism- Faraday's law of Electromagnetism, Fleming's left hand rule, Fleming's right hand rule (Lesson Plan) https://drive.google.com/file/d/1Qv	Making of Electromagnet using iron nail copper wire	Will be able to understand the working of electromagnet and will be able to make an	Circuit diagram of electromagnet using cells or 9 volt battery	Make a crane or toy using electromagnet.	Making of Rakhi from thread /wool yarn or Mouli	https://youtu.be/3HyORmBip-w	08

		AtB25RB-Lnb-Oxw6HdLyctSdWyr_KL/view?usp=sharing	and 9 volt battery https://www.youtube.com/watch?v=aKTY9deRJBm https://www.youtube.com/watch?v=ktZBYtNRRcU	electromagnet themselves.			(Raksha Sutra) etc https://www.youtube.com/watch?v=HNgJrIYGIQ		
05.	SEPTEMBER	Motor: principle, types, uses, Generator: Principles, types and use (Lesson Plan) https://drive.google.com/file/d/1mdvTNs7Efui4pc_TdkUHX1n0CueBl7d/view?usp=sharing	Identification of different parts of motor like stator and rotor Primary and secondary winding of fan, Testing of fan winding by multimeter https://www.youtube.com/watch?v=mavgAWNpViM	Will be able to learn different parts of table and ceiling fans they understand Function of primary and secondary winding, working of a motor.	Circuit diagram of motor and generator. Fleming's left and right hand rules	Identify the different parts of ceiling and table fans. Collect the power rating of different types of motors used at your home like mixer grinder, ceiling and table fans, water lifting pump etc.	Making paper bags from handmade sheets, news paper, paper bags for grocery use etc. https://www.youtube.com/watch?v=VgfHAhPkz2M	https://www.youtube.com/watch?v=6NQAwth1_Jo	08
06.	OCTOBER	House wiring (Part B)- Basic principle of switch board connections, Why a switch is to be connected in phase wire only and never in neutral wire (Lesson Plan) https://drive.google.com/file/d/12dJliyX7PBF2lg5eQ3bMGfc9Q5obQyt/view?usp=sharing	connect all the components of a normal tube light fittings Do soldering on a practice board and join two wires. https://www.youtube.com/watch?v=9WY-q7Gdh4s&t=33s	Will learn the switch board connection and to connect different accessories on the switch board.	lay out designing of house wiring Making candle of different design and decoration of candles	Making decorative items from unserviceable electrical wires	Making wax candles from paraffin wax. https://www.youtube.com/watch?v=baxszHeTDL4 https://www.youtube.com/watch?v=DwWccb_rc9M	https://www.youtube.com/watch?v=rWzw2ONlti4	08
07.	NOVEMBER	Switch Boards- Connection of Switch board of following types: One load, one switch Two loads, two switches c)One load, two switches (d) Two loads, one switch (e) Bed switch (Lesson Plan) https://drive.google.com/file/d/16vQ0mfhUruWZTCCgofFsWEltscBnCGhw/view?usp=sharing	Making of switch board and One load, one switch Two loads, two switches One load, two switches Two loads, one switch Bed switch Fuse in a switch board https://www.youtube.com/watch?v=9WY-q7Gdh4s&t=22s	Will be able to prepare switch boards / Extension boards as per the need and repair works of switch boards.	Block diagram and designing of switchboards. Circuit diagram of switch board and extension boards	Draw a connection diagram of an extension board and one any other switch board as you need.	Making of mobile stand or trash bin from waste cardboard boxes https://www.youtube.com/watch?v=6MkfLm2gnpE https://www.youtube.com/watch?v=K-zOIPZ3RXk	https://www.youtube.com/watch?v=9WY-q7Gdh4s&t=22s	08

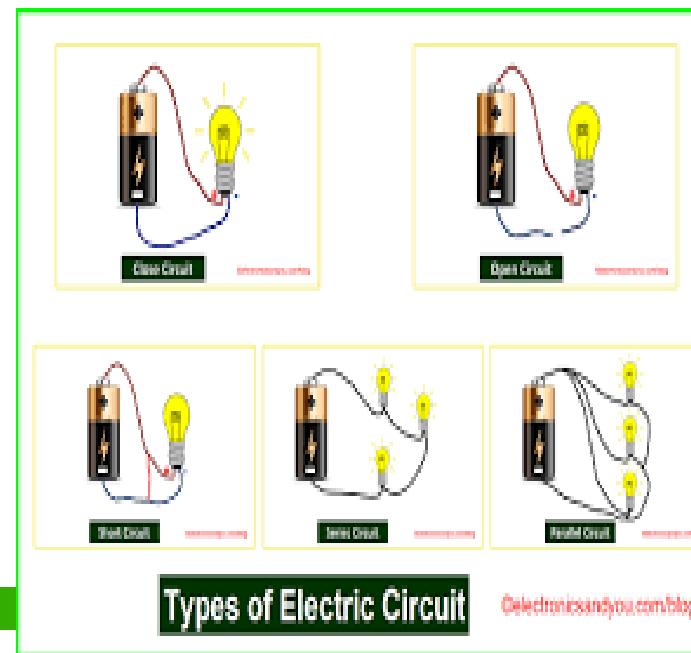
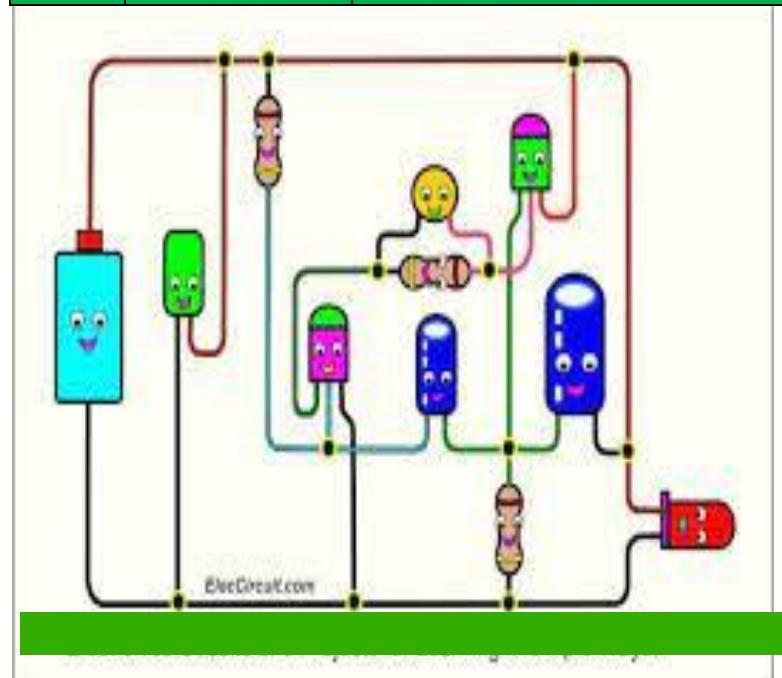
08.	DECEMBER	Bulbs / Tubes- Basic principle, Types of bulb, Domestic and Industrial bulbs, Power saving bulbs i.e. CFL, Tube lights Electrical Instruments- Ammeter: principle, use and types, Voltmeter: principle, use and types, Multimeter: importance, Principle, use and types (Lesson Plan) https://drive.google.com/file/d/16GMbsV5pfZ2CiGXb3wF5d1NWujouyFVc/view?usp=sharing	Bulb and tube light connection and fault finding Measurement of Current by using an ammeter Measurement of voltage by using a voltmeter. https://www.youtube.com/watch?v=q2EsegeshOO	Will be able to learn about different types of bulb their power consumption and understand the power saving techniques of lighting equipments	Banner and poster making on the topic Save Electricity. Drama or skits by the students on the topic “Save Electricity”	Collect the pictures of different types of bulbs and tubes and paste them in your notebook. collect the pictures of different types of electrical instruments and paste them in your notebook.	Making decorating items by paper quilling art. OR Making greeting cards . https://www.youtube.com/watch?v=92X4duEXA9I https://www.youtube.com/watch?v=klgCNKVO0WI	https://www.youtube.com/watch?v=wIWIYaL9hpA&list=RDCMUC_AimYeY07DIAreovZxOugA&index=1	08
09.	JANUARY	Electronics- A) Soldering Iron- Working Principle, Types , use Basic electronics materials- Resistors: functions & use, Color code, Capacitors: functions & use, LED : Function & use (Lesson Plan) https://drive.google.com/file/d/1NIUWVmQeumeSEG7yne21uSD-pw_JxsE6/view?usp=sharing	Identify different electronics items like resistors, capacitors, transistors, LED and their testing. Visit to a near by industry and see various types of bulbs & lighting accessories https://www.youtube.com/watch?v=6D5nylyWTk0	Students will be able to solder and desolder components of electronic circuit and replace them.	Slogan writing, and poster making or skit on topic save nature “Say NO to polythene bags”	To make aware to persons of their locality about harmful effect of polythene bags and motivate them to used paper and cloth bags.	How to make paper Messi / best use of newspaper / best out of waste /अखबार से बर्तन बनाना। https://www.youtube.com/watch?v=gvOM3xtQldA	https://youtu.be/cd3vn8GsmzA https://youtu.be/KCUEhVcGQQU	08
10.	FEBRUARY	Diodes and their characteristics Transistors Working Principle Types , use (Lesson Plan) https://drive.google.com/file/d/13bRLCFeQFd6DNHm mLCK0KoTob0j14Vu/view?usp=sharing	Testing of diode and transistor. Finding anode and cathode of diode, forward and reverse biasing.. https://www.youtube.com/watch?v=gzh8ICLMXzQ	Students will learn to use diodes as forward biased and reverse biased. function of diode as one way switch.	colouring and beautification of the cover page of binded books.	Make the list of waste materials which can be used for book binding	Book binding https://www.youtube.com/watch?v=JNkqEH8bk4	https://www.youtube.com/watch?v=gzh8ICLMXzQ	06
11.	MARCH	Ohm's law- Explanation of Ohm's law (Lesson Plan) https://www.youtube.com/watch?v=JKI8OxGLijQ	Combination of resistances in parallel and series and verification of their value by multimeter. https://www.youtube.com/watch?v=JJQgxB7kr0&t=9s	Students will be able to understand how R, V, AND I are related in an electrical circuit.	Making colourful series of fused bulbs and decoration work .	What other things you can prepare from electrical waste.	Examination preparation	https://youtu.be/oFTi9LWkm8 https://youtu.be/r8-RAjL0mrI https://youtu.be/SNIOPxz-Ev4	02

ACADEMIC PLANNING FOR WORK EDUCATION IN CLASS X SESSION 2021-22

S.NO.	MONTH	CONTENT	PRACTICAL	Learning outcomes	Co-relation with Art-integration	Home Assignment	OTHER THEN ELECTRICAL & ELECTRONIC ACTIVITY	PROJECTS LINKS	PERIOD REQUIRED
01.	APRIL	1. Thermal Power Station: Working Principles, Schematic Diagram, Places where thermal power houses are located 2. Nuclear Power Station : Working Principles , Schematic Diagram , Places where thermal power houses are located. (Lesson Plan) https://drive.google.com/file/d/10ESVofZbYKxxCNW7VAY8pSltOpKC/view?usp=sharing	The Preparation of Practical Switch Board : Multiple Switch with Multiple Loads https://www.youtube.com/watch?v=9WY-q7Gdh4s	Students will understand and Know about Generation of Electricity in different modes.	Knowledge of Different Laws in Science as well as energy	Draw labeled diagramme of Generation Plants	Gardening : Prepare Vertical Gardening System by using Old Clod Drink Pet Bottles https://youtu.be/VFIZRBBQ8Tg	https://youtu.be/9tabSQ6Nagw https://drive.google.com/file/d/1-AD5xdfVHoaGRBedi6Ql51ktvleitJ9r/view?usp=sharing	8
02.	MAY-JUNE	Nuclear Power Station : Working Principles , Schematic Diagram , Places where thermal power houses are located. (Lesson Plan) https://drive.google.com/file/d/1YY_T4dbuNKmseHF2DAs-TmrFCIQINU/view?usp=sharing		Students will understand and Know about Generation of Electricity in different modes.	Knowledge of Different Laws in Science as well as energy	Draw labeled diagramme of Generation Plants	Making Terrace Garden https://youtu.be/J6cBfJF14fc	https://youtu.be/JDiXm_V1ae0	4
03.	JULY	1. Electrical Fundamentals: Potential, Potential Difference , Current , Resistance , Resistivity , Properties of specific resistance , Calculation of resultant resistance in a circuit , 2. Transformer (Basic idea) : Principle , Construction , Types , Uses (Lesson Plan) https://drive.google.com/file/d/1rhedjgWvQcGSE1mo9g8wJ1uWwK/view?usp=sharing	Multiple switches with multiple loads https://youtu.be/k-PB_HOJT1A	Know about different quantities & definitions related with Electricity	It is helps students to prepare Science Electricity Chapter	Preparation of Color code Wheel	Origami : Paper Flower Making https://www.youtube.com/watch?v=moBF6c4DN-A https://www.youtube.com/watch?v=PUJTUz0-U https://www.youtube.com/watch?v=hXLA5sdT9Cs	https://www.youtube.com/watch?v=08YugQce9OA https://www.youtube.com/watch?v=PUJTUz0-U https://www.youtube.com/watch?v=hXLA5sdT9Cs	8
04.	AUGUST	House Wiring : Switch Board suitable for: (ahead of previous class) Multiple switches with multiple loads , Multiple switches and plugs points , Incorporation of fuse , Incorporation of Indicator , Incorporation of regulator , Quiz burger cum light switch board (Lesson Plan) https://drive.google.com/file/d/1OWTD257o17euBC3SC7cht5h6njeC0/view?usp=sharing	Multiple switches and plugs points https://youtu.be/3Nxu2XtdzAo	Know about distribution of Electricity in a House as well as city & so on...	Develop the knowledge of different kinds of Electrical Accessories, Components & Tools	Preparation of His /Her House wiring Diagramme	Making Paper Lantern from Old Books , How to Recycle old Book into decorative Item https://www.youtube.com/watch?v=1L8hMIA0qxl	https://drive.google.com/file/d/17vhAn_vPMhkrg_I998ybCqdp7Xy8dtM7/view?usp=sharing	8

05.	SEPTEMBER	Electronics : Integrated circuit (IC) : Principle Types , and use , A simple battery eliminator: Principle, use and construction , Simple Electronics Circuits : Principles, types & Construction (Lesson Plan) https://drive.google.com/file/d/1v51cypIX2C19jm2oMtw01qVMkHOGhbh8/view?usp=sharing	Incorporation of fuse in Switch Board. https://www.youtube.com/watch?v=HwWGEzQlxjg	Create simple power Supply and knowledge of electronic Components	Fabricate Simple Science Fair Projects	Draw the diagramme of Different Electrical & Electronics Components	Book Binding : How to re Use old Copy blank Pages through Binding https://www.youtube.com/watch?v=w1Hp0Uiay2w	https://drive.google.com/file/d/1SAL_H5a5KWGrGI-ZOR4824q8JxORR7U/view?usp=sharing	8
06.	OCTOBER	Renewable sources of energy : Types of renewable sources of energy , Importance of exploration of non conventional sources of energy , Importance of reduce reuse and recycle. (Lesson Plan) https://drive.google.com/file/d/1dm02xugB0Wr4SoM58QVu6CfKxkgrlU4/view?usp=sharing https://drive.google.com/file/d/1sbkSga64-bO-MWV57tcBeLY6cU7maB3R/view?usp=sharing	Incorporation of Indicator in Switch Board. https://www.youtube.com/watch?v=6TSA19eVWTM	Understand different kinds of Energy Sources	It helps in Preparation of Science subject	Draw the Different Kinds of Electrical Energy Generation Non-Conventional	Preparation Liquid Hand Wash . https://www.youtube.com/watch?v=LZeXHxlvEg	https://www.youtube.com/watch?v=98xjHP0Opp8	8
07.	NOVEMBER	Magnetic effect of electric current (Lesson Plan) https://drive.google.com/file/d/1R2slwlOheBSiE-7mYM5cBoBoKhntd6d/view?usp=sharing https://drive.google.com/file/d/1UB_ZtJ2yl2i1qE99hfbwqu5dS83FadmP/view?usp=sharing	Incorporation of regulator in Switch Board https://www.youtube.com/watch?v=gECBIE4sYF8	Knowledge of Magnetism & Generator of Electrical Energy	Helps in Preparation of Simple Motor which can be use different Projects	Draw the diagram of Different Magnetism Laws	Preparation of Perfume https://youtu.be/BAahsMPPqaE	https://www.youtube.com/watch?v=sR8aMRxnYCE	8
08.	DECEMBER	Soldering technique https://drive.google.com/file/d/1XEkt7qkBUW_lT1o3IAaqZi88zWCKU3y/view?usp=sharing	Quiz burger cum light switch board Make a Battery eliminator by stepping down it to 230V AC to 6/9/12 V DC. https://youtu.be/njY4Z3R-L7U	Develop the Technical Skill of Soldering	Helps in Preparation of Different Electronic Projects in Science as well as Physics	Fabricate Simple Musical Bell using Bread Board	Preparation of Compost https://www.youtube.com/watch?v=cK2aeVv565I	https://www.youtube.com/watch?v=T4kOVTBHpKo	8

809.	JANUARY	Generators , Motors https://www.youtube.com/watch?v=6NQAw31_Jo	Make a Battery eliminator by stepping down it to 230V AC to 6/9/12 V DC. https://youtu.be/Wf7WloETqIQ	Knowledge of Use of Electricity	Know about Tiny Motors Used in Different Projects	Using D.C Motor. Prepare Rolling Wheel	Re use of Old News Paper by making Flower Pot . https://www.youtube.com/watch?v=1L8hMIA0gxl	https://www.youtube.com/watch?v=CxR6Bk46C0o	8	
10.	FEBRUARY	PREPARATION OF BOARD EXAMINATION								8
11.	MARCH									



ABOUT SKILLS

As KVS is recruiting Electrical / Electronic Diploma / Graduate Engineers for the post of W.E. / SUPW Teachers, the syllabus is prepared according to the concerned chapters only.

However, besides the above, a few non –electrical topics may also be taught to the students based on :

- a) Availability of local resources / Experts
- b) Skill of the teacher
- c) Ability of students
- d) Need of time and place

A few such non electrical items are given below :

- 1. *Paper works/ design*
- 2. *Origami*
- 3. *Can / Bamboo works*
- 4. *Wood works*
- 5. *Clay molding.*
- 6. *Envelop / paper bags /duster making*
- 7. *Candle making / wax moulding*
- 8. *Chalk making*
- 9. *Detergent powder / soap making*
- 10. *fabric works*
- 11. *fancy designs*
- 12. *Greetings Card making.*
- 13. *Making flower pot*
- 14. *Calendar / dater making*
- 15. *Wall hanging and decorative items*
- 16. *Agarbati stand and other similar useful items*
- 17. *Flower making with stocking cloth or others*
- 18. *ThermoCol design*

PROJECTS

Projects should be

- 1. Useful
- 2. Less expensive
- 3. Enjoyable and educative.
- 4. Using locally / easily available materials and resources
- 5. Without disturbing the study hour of the students.

At least one project to be given in a Term

Evaluation

Evaluation of the students' performance in all respects viz. Theory, Practical and Project is compulsory

The evaluation system is as under :

Evaluation is to be done thrice in a year (Term wise)

1. Marks of the tests are to be converted to Grades.
2. The grade should include the assessment result of Theory, Practical and project.
3. The grades allotted are as under :

Evaluation of Work Education/Pre-vocational Education, Art Education and Physical and Health Education will be done by the schools. CBSE has developed guidelines for internal assessment in these subjects which the schools are expected to keep in view while organizing teaching and evaluation of these subjects. Work education is a distinct curricular area for students for participation in social, economic and welfare activities. Student gets a sense of community service and develops self-reliance. Schools should promote Work Education Activities for holistic development of the student. These activities are to be graded on a 5-point grading scale (AtoE) and will have no descriptive indicators. No upscaling of grades will be done. The grading is to be done by the concerned teacher facilitating the activity.

SECTION WISE WEIGHTAGE IN WORK EDUCATION (for One Academic Year)

Section		Total Weightage	Total Periods
A	Self-help Activities	2	10
B	Community Outreach Activities	3	20
C	Pre-vocational Skill Development Activities	5	30
	TOTAL	10 points = A grade	60 periods

Grade	Grade point
A	9-10
B	7-8
C	5-6
D	3-4
E	1-2

- Teacher should ensure 100% result.
- At the end of each term the total mark is to be converted to grades and to be submitted to the Examination Deptt.
- The record of the assessment is to be displayed in the Teachers' Diary too.