

**New Horizons Regional Education Center (C & T)
Pacing Guide**

Program 1st Year	Teacher		
1st/2nd/3rd/4th Marking Period Topic/Unit	Virginia State Competencies	Standardized Test Areas for NOCTI/NCCT/Lie./Cert.	Supporting Equipment/Technology
1st Marking Period			
MP1= Identify course expectations.	TDI8536-38.015		
Describe skills/character -good tech	TDI8536-38.016	Nocti 2415 Customer Support	
Identify job opportunities available	TDI8536-38.017	/Ethics	
Participate in student organization activities.	TDI8536-38.019		PDP books, Skills meetings/contests
Comply w/fed,state,and local safety legal requirements, including OSHA,	TDI8536-38.001	Nocti 1034 Occupational Safety	MAvCCO safety CDw/certificate
Intro to Robots			REC curriculum
Inspect and maintain a safe working environment	TDI8536-38.002	Nocti 2415 Preventive Maintenance	MAvCCO safety CDw/certificat
Explain safe working practices around electrical hazards.	TDI8536-38.003	Nocti 1034 Occupational Safety	MAvCCO safety CDw/certificate
Identify emergency first aid procedures.	TDI8536-38.004	Nocti 1034 Occupational	
Identify the types of fires and the methods used to extinguish them.			Safety CD-First Aid
Identify PPE (personal protective equipment) requirements. •	TDI8536-38.006 •	Nocti 1034 Occupational	
Inspect course-specific hand and power tools to visually identify defects.	TDI8536-38.007	Safety	Safety CD-First Aid
Demonstrate lifting and carrying techniques.	TDI8536-38.008		
Robot safety			REC and Tooling U
Physics & Robotics	DI8536-38.010		REC
Report injuries.	TDI8536-38.011	Nocti 2415 Customer Support	
Report personal, environmental, and equipment safety violations	TDI8536-38.012	/Ethics	Tooling U
Osha Card-can earn	TDI8536-38.013		
Pass safety exam.	TDI8536-38.014		MAvCCO safety CDw/certificate
Apply soldering and desoldering techniques.	TDI8536-38.030		Tooling U
1st/2nd/3rd/4th Marking Period Topic/Unit	Virginia State Competencies	Standardized Test Areas for NOCTI/NCCT/Lie./Cert.	Supporting Equipment/Technology
Explain the nature of electricity.	TDI8536-38.020		
List ways to produce electrical energy.	TDI8536-38.021		
Identify electric/electronic components/symbols	TDI8536-38.022	NOCTI 1034 DC dc ckt	
Identify properties conductors/ insulators	TDI8536-38.023	NOCTI 1034 DC dc ckt	

Determine the properties of resistance.	TDI8536-38.024	NOCTI 1034 DC dc ckt	Meters,Breadboards w/compnents DC Software w questions and Certificates
Explore the theory of electromotive force (voltage).	TDI8536-38.025	NOCTI 1034 DC dc ckt	
Outline the path of electron flow	TDI8536-38.026	NOCTI 1034 DC dc ckt	
Determine the properties of power	TDI8536-38.027	NOCTI 1034 DC dc ckt	
Explain the construction and operation of circuit protective devices.	TDI8536-38.028		
Describe types of circuit control devices	TDI8536-38.029	NOCTI 1034 DC dc ckt	
2nd Marking Period			
Analyze series circuit characteristics.	TDI8536-38.031	NOCTI 1034 DC dc ckt	
Examine meter movement, using analog and digital multimeters. digital multimeters	TDI8536-38.036	NOCTI 1034 Use of Equipment	
Analyze parallel circuit characteristics.	TDI8536-38.032	NOCTI 1034 DC dc ckt	
Analyze series-parallel circuit characteristics.	TDI8536-38.033	NOCTI 1034 DC dc ckt	
Evaluate the difference in voltage between I loaded and unloaded voltage divider circuits.	TDI8536-38.034		
Determine magnetic properties of a circuit or component.	TDI8536-38.035	NOCTI 1034 DC dc ckt	
Identify, use, and care for oscilloscope.	TDI8536-38.037	t	
Underlying Principles of Technology Planning • Management • Finance •		Nocti 2415 Security	
Underlying Principles of Technology Labor Issues • Community Issues		Nocti 2415 Security	
Health, Safety, and Environmental Issues		Nocti 2415 Customer Support /Ethics	
Inspect course-specific hand and power tools			
3rd Marking Period			
Identify, use, and care for oscilloscope.	TDI8536-38.037	NOCTI 1034 AC ckt	AC Software w questions and Certificates
Describe alternating voltage and current.	TDI8536-38.038	NOCTI 1034 AC ckt	
		NOCTI 1034 AC ckt	
		NOCTI 1034 AC ckt	
Determine characteristics of capacitance	TDI8536-38.041	NOCTI 1034 AC ckt	
Demonstrate capacitive reactance.	TDI8536-38.042	NOCTI 1034 AC ckt	
Underlying Principles of Technology		Nocti 2415 Security	
		Nocti 2415 Customer Support /Ethics	
Prepare a portfolio.	TDI8536-38.018		
Participate in the co-curricular student organization activities.	DI8536-38.019		
Apply soldering and desoldering techniques.	TDI8536-38.030	NOCTI 1034 DC dc ckt	

4TH Marking Period			
Analyze series-parallel circuit characteristics.	TDI8536-38.033	NOCTI 1034 AC ckt	
Determine magnetic properties of a circuit . or component	TDI8536-38.035	NOCTI 1034 AC ckt	
	TDI8536-38.051	NOCTI 1034 AC ckt	
Demonstrate capacitive reactance.	TDI8536-38.042	NOCTI 1034 AC ckt	
Explain transformer operations.	TDI8536-38.043	NOCTI 1034 AC ckt	
Explain the operation of RL and RC networks.	TDI8536-38.044	NOCTI 1034 AC ckt	
Determine current, voltage, and impedance in an RLC circuit.	TDI8536-38.045	NOCTI 1034 AC ckt	
Determine resonant frequencies in RLC circuits.	TDI8536-38.046	NOCTI 1034 AC ckt	
Prepare a portfolio.	TDI8536-38.018		
Underlying Principles of Technology		Nocti 2415 Security	
Participate in the co-curricular student organization activities.			
Apply soldering and desoldering techniques.		NOCTI 1034 DC dc ckt	
Examine meter movement, using analog and digital multimeters.		TDI8536-38.036	