# CYBERCAMP INSTRUCTIONAL ACTIVITY SCHEDULE

**School Division(s):** Richmond County Public Schools **School:** Northern Neck Technical Center (Camp 2)
**Camp Begin Date:** July 11, 2016 **Camp End Date:** July 27, 2016 **Days of Week:** Monday – Thursday
**Daily Instruction Begin Time:** 8:00 AM **Daily Instruction End Time:** 2:30 PM **Specify alternate schedules below**
**Lunch Period (begin/end):** 11:30-12:00 **Total instructional hours including guest speaker(s) field trip(s) and culminating** 70 **Enrollment:** 25
**Students from Westmoreland County, Northumberland County, and the Town of Colonial Beach Public Schools participating**

| July 11th-14th | | | |
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| **Monday** | **Tuesday** | **Wednesday** | **Thursday** |
| 8:00 A.M. – Welcome and introductions<br>**PRETEST**<br>9:30 - 11:30 STEM EDA Electricity<br>Introduction to electricity<br>Make a Circuit<br>How Batteries work<br>Make a wet cell battery<br>12:00 – 2:30<br>Series and Parallel Circuits and Switches<br>Make circuits<br>Design a Flashlight | Humanities Content<br>Cyber-attacks lead to a city wide black out<br>9:40 – 11:00 Cyber Society<br>Digital Technology, Friendship, and Personal Relationship<br>Examine the impact of technology on friendship and relationships<br>11:00-11:30 i. Hello World<br>12:00 -1:30 1. Interact with Boe-Bot to learn introductory coding & keywords<br>1:30 – 2:30 Current Events<br>Research cyber-security events and prepare a briefing on an event | 8:00 9:00 Current Events<br>Research cyber-security events and prepare a briefing on an event<br>9:00 – 11:30 ASCII and Timers<br>Use Boe-Bots to practice with variables and timing statements<br>12:00 -2:00 Digital Technology and Privacy<br>Evaluate the nature and value of privacy<br>2:00-2:30 Timers and LEDS (Intro) | **Field Trip to Dahlgren Naval Base**<br>8:00 Departure<br>Visit to IWSL with V42<br>Travel<br>Lunch<br>Visit to DeVIL with A41<br>4:00 Arrival back to NNTC |

| July 18th–21st | | | |
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| **Monday** | **Tuesday** | **Wednesday** | **Thursday** |
| 8:00 – 9:30 Timers and LEDS<br>Construct an LED circuit with Boe- Bot for a visual connection to processing speed<br>9:30 – 12:30 Networks<br>Discuss network terms and definitions<br>Identify sample layouts of networks<br>Students will construct a live "human" network using ropes as network connections and envelopes as data to observe how information travels from device to device.<br>12:30 – 2:30 Networking<br>Minecraft Topology | 8:00 – 10:00 Digital Technology and the Human Personality<br>Discuss the intellectual and emotional traits that can be cultivated through the use of technology and consider how to revise their personal use of technology to enhance those traits.<br>10:00 – 1:30 Basic Navigation and sub routines<br>Begin coding movements into Boe-Bot<br>Practice different codes<br>1:30 -2:30 Malware<br>Discuss malicious intent and explore varieties of malware to which cyber citizens may be exposed | 8:00 -10:00 Turning Maneuvers<br>Work through the programing design process to refine movements with the Boe- Bot<br>10:00-11:30 Digital Technology, Harms and Trusts<br>Discuss the intellectual and emotional traits that can be cultivated through the use of technology and revise personal use of technology to enhance these traits<br>12:00 – 2:30 Infrared Navigation (CL)<br>Construct infrared navigation circuits and safely navigate Boe-Bots around obstacles | ECPI Field Trip<br>Departing from Northern Neck Technical Center<br>Arriving in ECPI, Richmond Virginia Innsbrook 4305 Cox Rd. Glen Allen Virginia 23060<br>Arriving back at the Northern neck Technical Center at 4:00PM |

| **Monday** | **Tuesday** | **Wednesday** |
|---|---|---|
| 8:00 – 8:15 Infrared Navigation Review<br>8:20 – 11:30 Infrared Navigation (CLII)<br>Use IR circuits to trigger additional Boe – Bots responses (i.e. speakers, LEDs, additional movements)<br>12:00 -2:30 IR Programmable Remotes (CLII)<br>Use a programmable remote to control the Boe-Bot | 8:00 -11:30 IR Programmable Remotes (CLII)<br>Use a programmable remote to control the Boe-Bot<br>Humanities content throughout the Robotics lessons, malicious content of a wireless device<br>12:00 – 2:30 Cyber Ethics Culminating Activity<br>Develop an overall judgement on the benefits and costs of digital technology for now and future generations | 8:00- 10:30 Mine Field Challenge<br>12:30 – 2:30 Awards Assembly, Project previews, parent visitation |

**Breakfast 7:30-8:00AM Lunch 11:30-12:00PM Departure 2:30PM**