![Federal Way Public Schools logo]

MS MYP Robotics Year 1-3

6th - 8th Grade

A1 Describe characteristics of robots and explain/use NXT components.

A2 Understand the roles of hardware, software, and firmware, and how they interact in the NXT.

A3 Describe health and safety procedures in a NXT robotics lab.

A4 Identify STEM careers and pathways.

A5 9-10.RST.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9–10 texts and topics.

B6 Program a robot for precise forward and reverse motion.

B8 Calculate and use gear ratios to optimize robot performance.

B9 Plan and develop linear programs.

B10 Plan and develop programs with repeating behaviors (loops).

B11 Plan and develop branching programs with switch blocks nested inside loops

C12 Build robotic circuits and run robotics programs.

C13 Build robot that responds to light and sound.

C14 Build robots capable of precision maneuvers, including moveable appendages.

C15 Build robots that respond to touch and their proximity to objects.

C16 Build robots that make binary decisions based on sensory input.

C17 9-10 RST.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.

D18 9-10.WHST.6 Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

D19 - PS 18 9-10.WHST.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.