

**RCW 28A.188.010 STEM literacy.** (1) As used throughout this chapter, "STEM" means science, technology, engineering, and mathematics.

(2) To provide focus and clarity to efforts to increase learning opportunities and improve educational outcomes in STEM, the following definition of STEM literacy is adopted: STEM literacy means the ability to identify, apply, and integrate concepts from science, technology, engineering, and mathematics to understand complex problems and to innovate to solve them. STEM literacy is achieved when a student is able to apply his or her understanding of how the world works within and across the four interrelated STEM disciplines to improve the social, economic, and environmental conditions of the local and global community.

(3) The component parts of STEM literacy are:

(a) Scientific literacy, which is the ability to use scientific knowledge and processes in physics, chemistry, biology, and earth and space science to understand the natural world and to participate in decisions that affect it;

(b) Technological literacy, which is the ability to use new technologies, understand how technologies are developed, and have skills to analyze how new technologies affect individuals, the nation, and the world. Technology is the innovation, change, or modification of the natural environment to satisfy perceived human needs and wants;

(c) Engineering literacy, which is the understanding of how technologies are developed through the engineering design process. Engineering design is the systematic and creative application of scientific and mathematical principles to practical ends, such as the design, manufacture, and operation of efficient and economic structures, machines, processes, and systems; and

(d) Mathematical literacy, which is the ability to analyze, reason, and communicate ideas effectively through posing, formulating, solving, and interpreting solutions to mathematical problems in a variety of situations. [2013 2nd sp.s. c 25 s 1.]