

Middle-level CTE
Learning Experience Template
March 2019

Middle-level CTE Learning Experience Title: Robot Winter Olympics

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	<p>a) Investigate knowledge, skills, and practices needed for a career in the communications and human services fields</p> <p>Abilities for a Technological World</p> <p>2. Use and Maintain Technological Products and Systems</p> <p>Students will</p> <p>a) Use information resources, manuals, documents, or experienced people to describe how systems work</p> <p>c) Utilize computer and information resources to operate and maintain a system</p> <p>3. Assess the Impact of Products and Systems</p> <p>Students will</p> <p>a) Utilize instruments to measure and gather data</p> <p>b) Identify trends or patterns in data to be applied toward decision making and identify positive and negative effects of technologies</p> <p>c) Interpret and evaluate accuracy of information to determine the quality of products and systems</p>	
Vocabulary	Academic Presentation, Design Group, Communication, Design Thinking, Engineering Design Cycle, Redesign, Testing	Content Computer Programmer, Program, Code, Algorithm, Pseudocode, Efficiency, Robot, Comments, Inputs, Outputs, Commands, Sequence, Electric Motor, Rotational Sensor, Accuracy, Speed, Computer, Sensors
Materials and Resources	<p>Age appropriate educational robotics system and compatible programming device (Day 1 - 11)</p> <p>Materials for Olympic sport events: Curling target, Bobsled track, Biathlon target including plastic cups, popsicle sticks, construction paper (Day 1 - 11)</p> <p>Devices wy 1)ppp .7 (o)-9y.7 (o)0p2Tw w(p)2(O)-1pO</p>	

	who writes code to control a robot?		
Do-now/Hook	Day 1 (cont.) Show clips from the Winter Olympics of curling, slalom, biathlon, and bobsled. https://www.olympic.org/videos/pyeongchang-2018 Discuss Olympic athlete preparation practices. Describe what a computer programmer does.	Day 1 (cont.) Students watch the videos taking notes as to what each event is and how to complete the task. Take notes	

description of event and rules)

Lead class discussion to create a list
of questions to be researched. (i.e.
What information do

Writes Clearly

Consistently writes clearly, uses correct grammar, and understands the intended audience of documents that are produced.

Writes clearly, generally using correct grammar, and understands the intended audience of the document produced.

Produces a document that is mostly well written but, sometimes uses incorrect grammar; shows general understanding of the intended audience.

Produces a document that is

Shows Willingness to Take
Risks

Embraces the idea that attempting/experimenting is an important part of success and approaches opportunities with an understanding that failed attempts are likely.

Understands that attempting/experimenting is an important part of success and approaches opportunities with an understanding that failed attempts are likely.

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