Course resumes showcase the technical skills students obtain in each PLTW course. Each resume outlines the computational skills, analytical skills, and knowledge acquired in the course. Course resumes also detail student experience with tools, software, lab work, and design and innovation. The detailed skills listed within course resumes illustrate the immediate, applicable contributions that students can make within a workplace.

Laboratory Skills
- Micropipetting
- DNA gel electrophoresis
- Restriction digestion
- Dissection
- Aseptic technique
- Plaque assay

Clinical Medicine
- EKG analysis
- Spirometry
- Urinalysis
- Evaluation of circulation - ankle brachial index (ABI)
- EMG analysis
- Taking and interpreting vital signs
- Diagnostic image analysis
- Kinesiology evaluation and taping
- Fracture repair techniques
- Tissue histology
- Physical therapy

Equipment and Software Proficiencies
- Vernier physiology sensors and probes
- Data acquisition software (Vernier® Graphical Analysis® 4)
- Microscope
- Goniometer

Scientific Experimentation Skills
- Locating, reading, and summarizing research presented in scientific journals
- Scientific experiment design and facilitation
- Laboratory data analysis and interpretation
- Graphing (by hand and using online tools)
- Analysis of experimental data to draw conclusions.
- Communication of results and conclusions orally and in writing
- Error analysis

Professional Skills
- Teamwork, group collaboration, and conflict resolution
- Project management
- Problem solving
- Technical writing
- Verbal and written communication
- Critical and creative thinking
- Ethical reasoning

Course Knowledge
- Biomedical science careers
- Structure and function of all human body systems
- Language of anatomy – regional and directional terminology
- Maintenance of homeostasis and feedback regulation
- Exercise physiology
- Mechanisms of pharmacologic action
- Movement at joints
- Muscle contraction
- Cardiac cycle and gas exchange
- Reflex and voluntary action
- Action potential and signal transduction
- Eye anatomy and physiology
- Human immunity and pathogen defense
- Hormonal regulation
- Enzyme action in digestion
- Nephron action
- Gut microbes and health
- Inheritance of genetic disease

Engagement Experiences
- Laboratory investigations
- Case studies
- Instant challenges and Quick Clinics
- Simulations
- Role play
- Gaming
- Design challenges