Classroom Instructional Material Alignment Tool – Noncore

The purpose of this document is to assist teachers in determining alignment of their Instructional materials being used in the classroom. Effective instructional materials are learning resources used to help students acquire essential knowledge, skills, and abilities as outlined in the standards. This includes print and non-print materials. It may also provide evidence to support your discussion about standards and resources as part of your evaluation.

Title: SREB Advanced Career Integration Production Technologies Author(s): SREB Publisher(s): SREB Grade Level: 9-12
Standard(s) addressed in this instructional material: Manufacturing Technologies

Instructions: Use the tables below to reflect upon and then determine if the instructional material meets each criteria.

I. Alignment to the Nevada Academic Content Standards (NVACS)- NON NEGOTIABLES

Criteria	Meets Criteria			Evidence
	Yes	No	N/A	
Targets a set of grade-level Nevada Academic Content Standards (NVACS).	X			**Rigorous for some students**
Selects text(s) that measure within the grade-level text complexity band and are of sufficient quality and scope for the stated purpose.	X			
Other: _____				

II. Key Shifts in the Nevada Academic Content Standards (NVACS)

Criteria	Meets Criteria			Evidence
	Yes	No	N/A	
Reading Text Closely: Makes reading text(s) closely, examining textual evidence, and discerning deep meaning a central focus of instruction.	X			
Text-Based Evidence: Facilitates rich and rigorous evidence-based discussions and writing about common texts through a sequence of specific, thought-provoking, and text-dependent questions (including, when applicable, questions about illustrations, charts, diagrams, audio/video, and media).	X			
Writing from Sources: Routinely expects that students draw evidence from texts to produce clear and coherent writing that informs, explains, or makes an argument in various written forms. Include a balance of on-demand and process writing and short, focused research projects.	X			
Academic Vocabulary: Focuses on building students' academic vocabulary in context throughout instruction.	X			
Increasing Text Complexity: Focuses students on reading a progression of complex texts drawn from the grade band (a balance of informational and literary texts as defined by the NVACS). Provides text-centered learning that is sequenced, scaffolded, and supported to advance students toward independent reading of complex texts at the CCR level.	X			
Building Disciplinary Knowledge: Provides opportunities for students to build knowledge about a topic/subject through analysis of a coherent selection of strategically sequenced, discipline-specific texts.	X			
Other: _____				

*Based on the EQUIP, IMET, and Publisher's Criteria Review Rubrics for Lessons and Units

III. Assessment

Criteria	Meets Criteria			Evidence
	Yes	No	N/A	
Assesses various modes, including a range of pre-, formative, summative, performance tasks, and self-assessment measures.	X			**Includes all**
Includes aligned rubrics, answer keys and scoring guidelines that provide sufficient guidance for interpreting student understanding and performance.	X			
Other: _____				

IV. Instructional Supports

Criteria	Meets Criteria			Evidence
	Yes	No	N/A	
Provides for authentic learning, application of literacy skills, student-directed inquiry, analysis, evaluation, and/or reflection.	X			
Integrates targeted instruction in such areas as grammar and conventions, writing strategies, discussion rules, and all aspects of foundational reading.	X			
Provides appropriate level and type of scaffolding, differentiation, intervention and support for all learners. • Supports diverse cultural and linguistic backgrounds, interests and styles. • Provides extra supports for students working below grade level. • Provides extensions for students with high interest or working above grade level.	X			**Scaffolding materials are a part of the instructor manual in all units. Additionally, Help Desk/on-line support**
Other: _____				

Summary/Reflection:

The review committee supports the adoption of these materials for the Manufacturing Technologies program at CHS. These materials exceed the State Standards for Manufacturing Technologies. These materials also align with industry standards. STEM curriculum for Manufacturing "***Integrated Production Technologies***" engages students in using innovative industry driven technologies to imagine and design new and improved products. Great entry-level jobs leading to challenging, high-paying careers are available across Nevada's Northern Region for graduates who have the academic and technical knowledge and skill sets to succeed.

Students also need creativity and problem-solving abilities to coordinate information and analyze data. With these skill sets, students will be prepared to dream, build and maintain cyber-mechanical systems; invent unmanned exploration vehicles; apply manufacturing principles to the construction of

production systems; and use logistics to develop solutions to the modern world's most pressing needs and wants.
The ***Integrated Production Technologies*** program is a four-course sequence that allows students to apply what they learn in academic courses to real-world projects using emerging, cutting-edge materials. Students will work on the frontiers of product development by applying nanotechnology to new areas of need. Students will reengineer existing products to reduce the energy and material costs required to produce them, invent new products, and create more durable and efficient products using automated computer-aided design and manufacturing programs.
Across the curriculum, working in teams and in online communities with industry professionals, students will learn by applying engineering design processes to authentic project-based assignments. Students will engage in 3-D computer-aided design, documentation, prototyping, testing and analysis. Students will also design modern production systems, create energy efficient work cells and explore robotics with the programmable logic controllers and computer numerical control systems used in the world's leading industries.
The curriculum also incorporates the lean management tools and techniques used by leading industries to improve their processes, increase the quality of their products and make them more competitive. Students will use advanced measurement tools to gather quality control data and apply principles from Six Sigma, lean manufacturing, statistical process control, total quality management and inventory control to design just-in-time production systems.
Students completing the program may become a National Instruments' Certified LabVIEW Associate Developer (CLAD) and may be prepared for earning other relevant industry certifications. Integrated Production Technologies was developed by SREB and Kentucky, with support from the Bill & Melinda Gates Foundation, as part of a multi-state consortium to improve career and technical education in this country.

Also, the SREB curriculum meets several goals, objectives and strategies in the Carson City School District Strategic Plan "Empower Carson City 2022."
These include:
Goal 2 – Curriculum that Matters: Provide multiple pathways that empower lifelong learners, active citizens, and career and college ready students from Pre K through grade 12.
Objective 2.1: Prioritize proficiency when planning and implementing curriculum based on the Nevada Academic Content Standards (NACS) to ensure that all students will participate in meaningful and relevant curriculum that includes English Language Arts, Mathematics, Science and Social Studies.

Strategy 2.1.2: Personalize student learning opportunities through the Learner Centered Model, project-based learning, and authentic applications.

Strategy 2.1.3: Provide professional learning opportunities to effectively implement and enhance curriculum and instruction.

Objective 2.2: Empower students by providing a variety of high-quality programs of study that will excite their interests, foster their talents, and better prepare them for college and career choices.

Strategy 2.2.3: Through community partnerships and district resources, students will have the opportunity to learn about environmentally friendly actions and sustainable practices.

Goal 5 – A Community in Full Partnership: Actively connect students with learning beyond the classroom.
Objective 5.1: Provide every K-12 student with timely opportunities for in-school and extended school programs that enhance critical thinking and problem-solving skills, improve academic

performance, emphasize the importance of life skills attainment, and allow for hands-on application of skills.

Strategy 5.1.1: Establish and implement a formal community partnership program that aligns extended school programs with the District's core curriculum and strategic goals, **including project based learning focused on science, technology, engineering, math, science,** arts, literacy, world languages, and social and physical development.

Objective 5.3: Contribute to strengthening and expanding the economic development and sustainable practices of our community and region by creating a highly trained and motivated workforce with exceptional thinking, innovation, and leadership skills.

Strategy 5.3.1: Establish a formal system, including internships, job shadowing opportunities, and in-school exposure to careers and college, to provide students with opportunities for authentic development of real world skills.

Overall Classroom Instructional Material Meets Criteria Rating: __X_Yes ___No ___ N/A