

**Certification Examinations for Oklahoma Educators (CEOE)
Framework Development Correlation Table**

The Framework Development Correlation Table provides information about possible alignment of some of the knowledge and skills contained within the CEOE framework for a test field with other conceptualizations of the knowledge and skills of a field. It was produced using Oklahoma and educator association standards documents that were publicly available at the time of framework development. In the preparation of the Correlation Table, the alignment of a CEOE test competency with standards documents was indicated if the content of a standard was covered, in whole or in part, by the CEOE test competency. For some CEOE test competencies, multiple standards from Oklahoma, or other documents were aligned with the content of a CEOE test competency. An indication of alignment in the Correlation Table does not necessarily imply complete congruence of the content of a CEOE test competency with the standard.

Matrix Showing Match between Oklahoma Subject Matter Competencies for Physical Sciences and CEOE Competencies

Oklahoma Subject Matter Competencies	CEOE Competencies
Unifying Concepts	
a. System, Order, and Organization	0001 Connections among science, mathematics, and technology 0006 Types and uses of natural resources and the effects of human activities on the environment 0009 Concepts of energy, work, and power, and the principles of conservation of energy and motion 0011 Electric current and electric circuits, capacitance, and direct current circuits 0015 Models of atomic structure, and the organization of the periodic table
b. Evidence, Models, and Explanation	0001 Connections among science, mathematics, and technology 0003 The process of scientific inquiry and experimentation 0004 Processes of collecting, organizing, and analyzing scientific data 0006 Types and uses of natural resources and the effects of human activities on the environment

Oklahoma Subject Matter Competencies	CEOE Competencies
	0008 Characteristics of forces and the laws of motion 0015 Models of atomic structure, and the organization of the periodic table 0019 The kinetic theory of matter
c. Constancy, Change, Equilibrium, and Measurement	0001 Connections among science, mathematics, and technology 0004 Processes of collecting, organizing, and analyzing scientific data 0007 Concepts of motion in one and two dimensions 0008 Characteristics of forces and the laws of motion 0009 Concepts of energy, work, and power, and the principles of conservation of energy and motion 0013 Simple harmonic motion, waves, and wave motion 0018 Principles of thermodynamics 0019 The kinetic theory of matter 0020 Chemical reactions, reaction rates, and chemical equilibrium
d. Form and Function	0009 Concepts of energy, work, and power, and the principles of conservation of energy and motion 0013 Simple harmonic motion, waves, and wave motion 0014 Characteristics of sound waves and electromagnetic waves, including light and optics 0015 Models of atomic structure, and the organization of the periodic table 0016 Physical and chemical properties of

Oklahoma Subject Matter Competencies	CEOE Competencies
	matter and the types of bonds between atoms
e. Abilities of Technological Design	0001 Connections among science, mathematics, and technology 0011 Electric current and electric circuits, capacitance, and direct current circuits 0012 Magnetic fields and electromagnetic induction 0014 Characteristics of sound waves and electromagnetic waves, including light and optics
f. Understanding about Science and Technology	0001 Connections among science, mathematics, and technology 0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0004 Processes of collecting, organizing, and analyzing scientific data 0006 Types and uses of natural resources and the effects of human activities on the environment 0011 Electric current and electric circuits, capacitance, and direct current circuits 0012 Magnetic fields and electromagnetic induction
g. Science as a Human Endeavor	0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0006 Types and uses of natural resources and the effects of human activities on the environment

Oklahoma Subject Matter Competencies	CEOE Competencies
h. Nature of Science	0001 Connections among science, mathematics, and technology 0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0004 Processes of collecting, organizing, and analyzing scientific data 0005 Proper use of equipment, materials, and chemicals in physics 0015 Models of atomic structure, and the organization of the periodic table
i. Nature of Scientific Knowledge	0001 Connections among science, mathematics, and technology 0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0004 Processes of collecting, organizing, and analyzing scientific data 0015 Models of atomic structure, and the organization of the periodic table
j. History of Science	0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0015 Models of atomic structure, and the organization of the periodic table

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k. Historical Perspectives	0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0015 Models of atomic structure, and the organization of the periodic table
l. Personal Health	0002 Historical and contemporary contexts of the study of physical science 0005 Proper use of equipment, materials, and chemicals in physics 0006 Types and uses of natural resources and the effects of human activities on the environment
m. Personal and Community Health	0002 Historical and contemporary contexts of the study of physical science 0006 Types and uses of natural resources and the effects of human activities on the environment
n. Population, Resources, and Environments	0002 Historical and contemporary contexts of the study of physical science 0006 Types and uses of natural resources and the effects of human activities on the environment
o. Population Growth	0002 Historical and contemporary contexts of the study of physical science 0006 Types and uses of natural resources and the effects of human activities on the environment
p. Natural Hazards	0006 Types and uses of natural resources and the effects of human activities on the environment

Oklahoma Subject Matter Competencies	CEOE Competencies
q. Natural Resources	0006 Types and uses of natural resources and the effects of human activities on the environment
r. Risk and Benefits	0001 Connections among science, mathematics, and technology 0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0006 Types and uses of natural resources and the effects of human activities on the environment
s. Environmental Quality	0002 Historical and contemporary contexts of the study of physical science 0006 Types and uses of natural resources and the effects of human activities on the environment
t. Natural and Human Induced Hazards	0002 Historical and contemporary contexts of the study of physical science 0006 Types and uses of natural resources and the effects of human activities on the environment 0012 Magnetic fields and electromagnetic induction
u. Science and Technology in Society	0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0006 Types and uses of natural resources and the effects of human activities on the environment

Oklahoma Subject Matter Competencies	CEOE Competencies
	0011 Electric current and electric circuits, capacitance, and direct current circuits 0012 Magnetic fields and electromagnetic induction
v. Science and Technology in Local, National, and Global Challenges	0002 Historical and contemporary contexts of the study of physical science 0003 The process of scientific inquiry and experimentation 0006 Types and uses of natural resources and the effects of human activities on the environment 0012 Magnetic fields and electromagnetic induction
Physical Science	
a. Properties and Changes of Properties in Matter	0015 Models of atomic structure, and the organization of the periodic table 0016 Physical and chemical properties of matter and the types of bonds between atoms 0018 Principles of thermodynamics 0019 The kinetic theory of matter 0020 Chemical reactions, reaction rates, and chemical equilibrium 0021 Properties of solutions and theories, principles, and applications of acid-base chemistry

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<p>b. Motion and Force</p>	<p>0007 Concepts of motion in one and two dimensions</p> <p>0008 Characteristics of forces and the laws of motion</p> <p>0009 Concepts of energy, work, and power, and the principles of conservation of energy and motion</p> <p>0010 The concepts of electric charge, electric fields, capacitance, and electric potential</p> <p>0012 Magnetic fields and electromagnetic induction</p> <p>0013 Simple harmonic motion, waves, and wave motion</p> <p>0014 Characteristics of sound waves and electromagnetic waves, including light and optics</p> <p>0015 Models of atomic structure, and the organization of the periodic table</p> <p>0016 Physical and chemical properties of matter and the types of bonds between atoms</p>
<p>c. Transfer of Energy</p>	<p>0009 Concepts of energy, work, and power, and the principles of conservation of energy and motion</p> <p>0010 The concepts of electric charge, electric fields, capacitance, and electric potential</p> <p>0013 Simple harmonic motion, waves, and wave motion</p> <p>0014 Characteristics of sound waves and electromagnetic waves, including light and optics</p> <p>0018 Principles of thermodynamics</p>

Oklahoma Subject Matter Competencies	CEOE Competencies
	0019 The kinetic theory of matter 0020 Chemical reactions, reaction rates, and chemical equilibrium
d. The Structure of Atoms	0015 Models of atomic structure, and the organization of the periodic table 016 Physical and chemical properties of matter and the types of bonds between atoms
e. Structure and Properties of Matter	0011 Electric current and electric circuits, capacitance, and direct current circuits 0012 Magnetic fields and electromagnetic induction 0013 Simple harmonic motion, waves, and wave motion 0015 Models of atomic structure, and the organization of the periodic table 0016 Physical and chemical properties of matter and the types of bonds between atoms 0019 The kinetic theory of matter
f. Chemical Reactions	0017 The relationship between the mole concept, chemical formulas, and chemical equations 0018 Principles of thermodynamics 0020 Chemical reactions, reaction rates, and chemical equilibrium 0021 Properties of solutions and theories, principles, and applications of acid-base chemistry

Oklahoma Subject Matter Competencies	CEOE Competencies
g. Conservation of Energy	0009 Concepts of energy, work, and power, and the principles of conservation of energy and motion 0013 Simple harmonic motion, waves, and wave motion 0018 Principles of thermodynamics