

JOB DESCRIPTION
ADMINISTRATIVE REGULATION GCA-R PHYSICS TEACHER

1:0 CLASSROOM TEACHER – PHYSICS TEACHER

2:0 LINE AND STAFF RELATIONSHIP

2:1 The Physics Teacher reports to and is evaluated by the Building Principal.

3:0 FUNCTIONS AND DUTIES- THE PHYSICS TEACHER

3:1 PLANS CURRICULUM AND INSTRUCTION

3:1.1 Draws on content standards of the relevant curriculum frameworks to plan sequential units of study, individual lessons, and learning activities that make learning cumulative and advance students' level of content knowledge.

3:1.2 Draws on results of formal and informal assessments as well as knowledge of human development to identify teaching strategies and learning activities appropriate to the specific discipline, age, level of English language proficiency, and range of cognitive levels being taught.

3:1.3 Identifies appropriate reading materials, other resources, and writing activities for promoting further learning by the full range of students within the classroom.

3:1.4 Identifies prerequisite skills, concepts, and vocabulary needed for the learning activities.

3:1.5 Plans lessons with clear objectives and relevant measurable outcomes.

3:1.6 Draws on resources from colleagues, families, and the community to enhance learning.

3:1.7 Incorporates appropriate technology and media in lesson planning.

3:1.8 Uses information in Individualized Education Programs (IEP's) to plan strategies for integrating students with disabilities into general education classrooms.

3:2 DELIVERS EFFECTIVE INSTRUCTION

3:2.1 Communicates high standards and expectations when beginning the lesson.

3:2.2 Makes learning objectives clear to students.

3:2.3 Communicates clearly in writing and speaking.

3:2.4 Uses engaging ways to begin a new unit of study or lesson.

3:2.5 Builds on students' prior knowledge and experience.

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- 3:2.6 Communicates high standards and expectations when carrying out the lesson.
Uses a balanced approach to teaching skills and concepts of elementary reading and writing.
- 3:2.7 Employs a variety of content-based and content-oriented teaching techniques from more teacher-directed strategies such as direct instruction, practice, and Socratic dialogue, to less teacher-directed approaches such as discussion, problem solving, cooperative learning, and research projects (among others).
- 3:2.8 Demonstrates an adequate knowledge of and approach to the academic content of lessons.
- 3:2.9 Employs a variety of reading and writing strategies for addressing learning objectives.
- 3:2.10 Uses questioning to stimulate thinking and encourages all students to respond.
- 3:2.11 Uses instructional technology appropriately.
- 3:2.12 Employs appropriate sheltered English or subject matter strategies for English learners
- 3:2.13 Communicates high standards and expectations when extending and completing the lesson:
- 3:2.14 Assigns homework or practice that furthers student learning and checks it.
- 3:2.15 Provides regular and frequent feedback to students on their progress.
- 3:2.16 Provides many and varied opportunities for students to achieve competence.
- 3:2.17 Communicates high standards and expectations when evaluating student learning:
Accurately measures student achievement of, and progress toward, the learning objectives with a variety of formal and informal assessments, and uses results to plan further instruction.
- 3:2.18 Translates evaluations of student work into records that accurately convey the level of student achievement to students, parents or guardians, and school personnel.
- 3:3 **MANAGES CLASSROOM CLIMATE AND OPERATION**
- 3:3.1 Creates an environment that is conducive to learning.
- 3:3.2 Creates a physical environment appropriate to a range of learning activities.
- 3:3.3 Maintains appropriate standards of behavior, mutual respect, and safety.
- 3:3.4 Manages classroom routines and procedures without loss of significant instructional time.

3:4 PROMOTES EQUITY

3:4.1 Encourages all students to believe that effort is a key to achievement.

3:4.2 Works to promote achievement by all students without exception.

3:4.3 Assesses the significance of student differences in home experiences, background knowledge, learning skills, learning pace, and proficiency in the English language for learning the curriculum at hand and uses professional judgment to determine if instructional adjustments are necessary.

3:4.4 Helps all students to understand American civic culture, its underlying ideals, founding political principles and political institutions, and to see themselves as members of a local, state, national, and international civic community.

3:5 MEETS PROFESSIONAL RESPONSIBILITIES.

3:5.1 Understands his or her legal and moral responsibilities.

3:5.2 Conveys knowledge of and enthusiasm for his/her academic discipline to students.

3:5.3 Maintains interest in current theory, research, and developments in the academic discipline and exercises judgment in accepting implications or findings as valid for application in classroom practice.

3:5.4 Collaborates with colleagues to improve instruction, assessment, and student achievement.

3:5.5 Works actively to involve parents in their child's academic activities and performance, and communicates clearly with them.

3:5.6 Reflects critically upon his or her teaching experience, identifies areas for further professional development as part of a professional development plan that is linked to grade level, school, and district goals, and is receptive to suggestions for growth.

3:5.7 Understands legal and ethical issues as they apply to responsible and acceptable use of the Internet and other resources.

4:0 THE PHYSICS TEACHER EXECUTES THE SUBJECT MATTER KNOWLEDGE REQUIREMENTS SPECIFIC FOR THE PHYSICS TEACHER

4:1 Mechanics (including fluid mechanics).

4:2 Heat, heat transfer, and thermodynamics.

4:3 Kinetic theory of gases.

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- 4:4 Light and geometric optics.
- 4:5 Electricity and magnetism.
- 4:6 Waves (sound and light).
- 4:7 The atom: its structure and the nucleus (including nuclear reactions).
- 4:8 Quantum theory of the atom.
- 4:9 Quantum theory of light.
- 4:10 Engineering and technical application of physics.
- 4:11 Related aspects of biology, chemistry, earth science and mathematics, such as trigonometry, vector analysis, and calculus.
- 4:12 History and philosophy of science.
- 4:13 Methods of research in the sciences, including laboratory techniques and the use of computers.

5:0 QUALIFICATIONS

- 5:1 The Physics Teacher shall hold Massachusetts Certification credentials as a Physics Teacher.
- 5:2 The Superintendent reserves the right to alter qualifications if deemed to be in the best interest of the Fairhaven Public Schools.

S.C. Received: May 24, 2006