

## **Test Review**

Topic: Heat and Temperature

Date: 14 April 2010

Subject: Physical Science

Grade level: 8

NSES Standards:

Teaching Standard B: Teachers of science guide and facilitate learning. In doing this, teachers:

- Focus and support inquiries while interacting with students;
- Challenge students to accept and share responsibility for their own learning;
- Encourage and model the skills of scientific inquiry, as well as the curiosity, openness to new ideas and data, and skepticism that characterize science.

Teaching Standard D: Teachers of science design and manage learning environments that provide students with the time, space, and resources needed for learning science. In doing this, teachers:

- Structure the time available so that students are able to engage in extended investigations;
- Create a setting for student work that is flexible and supportive of science inquiry;
- Ensure a safe working environment.

Assessment Standard A: Assessments must be consistent with the decisions they are designed to inform:

- Assessments are deliberately designed;
- Assessments have explicitly stated purposes;

Assessment Standard D: Assessment practices must be fair:

- Assessment tasks must be appropriately modified to accommodate the needs of students with physical disabilities, learning disabilities, or limited English proficiency;
- Assessment tasks must be set in a variety of contexts, be engaging to students with different interests and experiences, and must not assume the perspective or experience of a particular gender, racial, or ethnic group.

Grades 5-8 Content Standard A: As a result of activities in grades 5-8, all students should develop:

- Abilities necessary to do scientific inquiry;
- Understandings about scientific inquiry.

Grades 5-8 Content Standard B: As a result of their activities in grades 5-8, all students should develop an understanding of:

- Transfer of energy.

SOL: The student will investigate and understand temperature scales, heat, and heat transfer. Key concepts include:

- a) Celsius and Kelvin temperature scales and absolute zero;
- b) phase change, freezing point, melting point, boiling point, vaporization, and condensation;
- c) conduction, convection, and radiation; and
- d) applications of heat transfer (heat engines, thermostats, refrigeration, and heat pumps).

Topic: Quiz and Conductors/Insulators

Intended Learning Outcomes:

- SW understand what they need to study for the test tomorrow.

Daily Question: What do the students need to study for the test?

Procedures for Learning Experience	Guiding Questions	Materials Needed	Evaluation (Assessment)	Approximate Time
<b>Review:</b> Students will use Qwizdom remotes and presentation to answer questions about heat transfer as a review for the test tomorrow.	What are you still having difficulty understanding?	Qwizdom remotes Presentation	Student participation	50 minutes

**Notes:**

Vocabulary: heat, temperature, molecules, kinetic energy, Kelvin, Celsius, Fahrenheit, absolute zero, phase change, bi-metallic strip, melting point, boiling point, conduction, convection, radiation, vaporization, condensation, thermostat, refrigeration, heat engine

Safety:

- Remind the students to respect the Qwizdom remotes.

Differentiation:

- Students with IEPs will have time with Mr. Prentiss to complete study guide.

Technology:

- Presentation software.
- Qwizdom system.