Unit 8- Back in the Game

Content Area: **Science**
Course(s): **Sports Medicine**
Time Period: **April**
Length: **8 Blocks**
Status: **Published**

Transfer Skills

Back in the Game: Returning the Athlete to Action

Enduring Understandings

Before using any modality, the athletic trainer must have a thorough understanding of its function and when it should or should not be used.

The long –term goal of rehabilitation is to return the injured athlete to practice or competition as quickly and safely as possible.

A drug is a chemical agent used in the prevention, treatment, or diagnosis of a disease or injury.

Essential Questions

What are the theoretical and practical uses of the various types of modalities?

In the course of an injury rehabilitation program, when should the athletic trainer change from using cold to heat?

What are the components that need to be addressed in a rehabilitation program?

What are the appropriate medications used to treat specific injuries?

Content

Vocabulary:
Ischemia, conduction, convection, radiation, tetany, cryokinetics, bioequivalent

Skills

Recognize the legal ramifications of treating a patient with therapeutic modalities.

Correctly demonstrate a variety of thermotherapy and cryotherapy techniques.

Explain how the athletic trainer approaches rehabilitation.

Apply the various protocols that the athletic trainer should follow for administering over-the-counter medications.

Identify the various methods by which drugs can be administered.

Resources

Text: Essentials of Athletic Injury Management Copyright: 2010

PBS LearningMedia

National Federation of State High School Associations: Sports Medicine Resources

Assessments

Assessments:

Class Discussions

Q&A

Vocabulary Quiz

Unit Test

Standards

SEP.1.a	Ask questions
SEP.1.a.2	that arise from examining models or a theory, to clarify and/or seek additional information and relationships.

CCC.2.1	students understand that empirical evidence is required to differentiate between cause and correlation and to make claims about specific causes and effects. They suggest cause and effect relationships to explain and predict behaviors in complex natural and designed systems. They also propose causal relationships by examining what is known about smaller scale mechanisms within the system. They recognize changes in systems may have various causes that may not have equal effects. Defining the system under study—specifying its boundaries and making explicit a model of that system—provides tools for understanding and testing ideas that are applicable throughout science and engineering.
SEP.2.e	Develop a complex model that allows for manipulation and testing of a proposed process or system.
SEP.3.c	Plan and conduct an investigation or test a design solution in a safe and ethical manner including considerations of environmental, social, and personal impacts.
HPE.2.1.12.A.CS1	Developing and maintaining wellness requires ongoing evaluation of factors impacting health and modifying lifestyle behaviors accordingly.
HPE.2.1.12.B.CS1	Applying basic nutritional and fitness concepts to lifestyle behaviors impacts wellness.
HPE.2.1.12.D.1	Determine the causes and outcomes of intentional and unintentional injuries in adolescents and young adults and propose prevention strategies.
HPE.2.1.12.D.6	Demonstrate first-aid procedures, including Basic Life Support and automatic external defibrillation, caring for head trauma, bone and joint emergencies, caring for cold and heat injuries, and responding to medical emergencies.
HPE.2.1.12.D.CS1	Evaluating the potential for injury prior to engaging in unhealthy/risky behaviors impacts choices.
HPE.2.1.12.E.4	Develop a personal stress management plan to improve/maintain wellness.
SCI.9-12.1.2	Classifications or explanations used at one scale may fail or need revision when information from smaller or larger scales is introduced; thus requiring improved investigations and experiments.
SCI.9-12.2.2	Cause and effect relationships can be suggested and predicted for complex natural and human designed systems by examining what is known about smaller scale mechanisms within the system.
SCI.9-12.2.3	Systems can be designed to cause a desired effect.
9-12.HS-LS1-2.4.1	Models (e.g., physical, mathematical, computer models) can be used to simulate systems and interactions— including energy, matter, and information flows—within and between systems at different scales.
9-12.HS-LS1-1.6.1	Construct an explanation based on valid and reliable evidence obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.
9-12.HS-LS1-3.LS1.A.1	Feedback mechanisms maintain a living system's internal conditions within certain limits and mediate behaviors, allowing it to remain alive and functional even as external conditions change within some range. Feedback mechanisms can encourage (through positive feedback) or discourage (negative feedback) what is going on inside the living system.
9-12.HS-LS1-1.LS1.A.1	Systems of specialized cells within organisms help them perform the essential functions of life.