Units 10 - Doing it the Right Way

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

Transfer Skills

Doing it the Right Way: Dangers of Substance Abuse

Enduring Understandings

Pharmacokinetics is the method by which drugs are absorbed, distributed, metabolized, and eliminated by the body.

Substance abuse involves the use of performance enhancing drugs and the widespread use of recreational drugs.

The major goals of drug testing are to protect the health of athletes and to help ensure that competition is fair and equitable.

Essential Questions

What should the athletic trainer tell the athlete to reduce anxiety about drug testing?

What steps can be used to identify the substance abuser?

What are the deleterious effects of anabolic steroids?

Content

Vocabulary:
Drug-vehicle, bioavailability, efficacy, potency, strady-state

Skills

Recognize the problem of substance abuse in the athletic population.

Describe the ergogenic aids used by athletes to improve performance.

Discuss the use of alcohol, drugs, and tobacco by athletes.

Evaluate drug-testing policies and procedures and list the types of banned drugs.

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

	The way in which an object or living thing is shaped and its substructure determine many of its properties and functions.
SEP.8.b	Compare, integrate and evaluate sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a scientific question or solve a problem.
SEP.8.c	Gather, read, and evaluate scientific and/or technical information from multiple authoritative sources, assessing the evidence and usefulness of each source.
SEP.8.e	Communicate scientific and/or technical information or ideas (e.g., about phenomena

	and/or the process of development and the design and performance of a proposed process or system) in multiple formats (i.e., orally, graphically, textually, mathematically).
HPE.2.1.12.A.CS1	Developing and maintaining wellness requires ongoing evaluation of factors impacting health and modifying lifestyle behaviors accordingly.
HPE.2.3.12.A.1	Determine the potential risks and benefits of the use of new or experimental medicines and herbal and medicinal supplements.
HPE.2.3.12.A.2	Summarize the criteria for evaluating the effectiveness of a medicine.
HPE.2.3.12.A.3	Relate personal abuse of prescription and over-the-counter medicines to wellness.
HPE.2.3.12.A.CS1	Medicines come in a variety of forms (prescription medicines, over-the-counter medicines, medicinal supplements), are used for numerous reasons, and should be taken as directed in order to be safe and effective.
HPE.2.3.12.B.2	Debate the various legal and financial consequences of the use, sale, and possession of illegal substances.
HPE.2.3.12.B.3	Correlate increased alcohol use with challenges that may occur at various life stages.
SCI.9-12.6.2	The functions and properties of natural and designed objects and systems can be inferred from their overall structure, the way their components are shaped and used, and the molecular substructures of its various materials.
SCI.9-12.7.3	Feedback (negative or positive) can stabilize or destabilize a system.
SCI.9-12.7.4	Systems can be designed for greater or lesser stability.
9-12.HS-LS4-4.6.1	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-LS4-5.7	Engaging in argument from evidence in 9-12 builds on K-8 experiences and progresses to using appropriate and sufficient evidence and scientific reasoning to defend and critique claims and explanations about the natural and designed world(s). Arguments may also come from current or historical episodes in science.
9-12.HS-LS4-6.ETS1.B.1	When evaluating solutions, it is important to take into account a range of constraints, including cost, safety, reliability, and aesthetics, and to consider social, cultural, and environmental impacts.