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Science, Grade 7
CONTENT
STANDARDS POSTERS

SCIENCE

GRADE 7

Content Standards Posters

FOCUS ON LIFE SCIENCE



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. As a basis for understanding this concept:

Students know visible light is a small band within a very broad electromagnetic spectrum.



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. As a basis for understanding this concept:

Students know for an object to be seen, light emitted by or scattered from it must be detected by the eye.



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. As a basis for understanding this concept:

Students know light travels in straight lines if the medium it travels through does not change.

GRADE 7

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Physical Principles in Living Systems

Physical principles underlie biological structures and functions. As a basis for understanding this concept:

Students know how simple lenses are used in a magnifying glass, the eye, a camera, a telescope, and a microscope.



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. As a basis for understanding this concept:

Students know that white light is a mixture of many wavelengths (colors) and that retinal cells react differently with different wavelengths.



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. *As a basis for understanding this concept:*

Students know light can be reflected, refracted, transmitted, and absorbed by matter.



Physical Principles in Living Systems

Students know the angle of reflection of a light beam is equal to the angle of incidence.



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. *As a basis for understanding this concept:*

Students know how to compare joints in the body (wrist, shoulder, thigh) with structures used in machines and simple devices (hinge, ball-and-socket, and sliding joints).



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. *As a basis for understanding this concept:*

Students know how levers confer mechanical advantage and how the application of this principle applies to the musculoskeletal system.



Physical Principles in Living Systems

Physical principles underlie biological structures and functions. As a basis for understanding this concept:

Students know that contractions of the heart generate blood pressure and that heart valves prevent backflow of blood in the circulatory system.