

# AAD—Physical Science

Course Code(s):	TBD
Prerequisite(s):	None
Credit:	1
Grade Level:	9-12
Graduation Requirements:	This course satisfies one of three science credit requirements for the alternate academic diploma
Programs of Study and Sequence:	This is a part of the science program of study.
Teacher Endorsement(s):	TBD

## Course Requirements

Matter and Its Interactions (PS1)	
AAD.PHY.PS1.1	Recognize that all matter is composed of atoms and that atoms are all composed of a nucleus made of protons and neutrons, and surrounded by electrons. *
AAD.PHY.PS1.2	Use a periodic table to find common elements and describe the characteristics of the element (metal, nonmetal, noble gas). *
AAD.PHY.PS1.3	Recognize that atoms are conserved during a chemical reaction and model common molecules (water, salt, O <sub>2</sub> ). *
AAD.PHY.PS1.4	Create a model of the nucleus of an atom demonstrating fusion and fission. *
Motion and Stability: Forces and Interactions (PS2)	
AAD.PHY.PS2.1	Create and conduct experiments exploring the relationship between force, mass, and acceleration. ( $F=ma$ ) ✓
AAD.PHY.PS2.2	Recognize that a magnet has both a positive and negative attraction force field that permeate space and can transfer energy to other objects. ✓
AAD.PHY.PS2.3	Plan and conduct an experiment to provide evidence that systems can change in a predictable using the principals of force and motion, push and pull. (Ex. Plan an experiment to provide evidence that an object requires more energy to pull across a flat surface than down a slope). ✓
Energy (PS3)	

1  
(4 WKS)

2  
(3 WKS)

AAD.PHY.PS3.1	Identify and give examples of kinetic, mechanical, chemical, electrical, and thermal energy.	*
AAD.PHY.PS3.2	Plan and conduct experiments to model the conservation of energy (energy can neither be created nor destroyed) through the demonstration of energy transfer.	*
AAD.PHY.PS3.3	Recognize that while energy cannot be destroyed, it can be converted to less useful forms.	*
AAD.PHY.PS3.4	Recognize that solar power is the capture and storing of the sun's energy through photosynthesis.	*
Waves and Their Application in Technologies for Information Transfer (PS4)		
AAD.PHY.PS4.1	Plan and conduct an experiment related to light or sound waves being amplified or using different frequencies and recording the changes to the light or sound as a result.	*
AAD.PHY.PS4.2	Recognize that waves can pass through matter unchanged and can be used to create visuals not otherwise visible (x-ray technology).	*
AAD.PHY.PS4.3	Identify modern technology that uses waves (cell phones, wifi, microwaves, medical imaging, etc.).	*

3  
(4 wks)

4  
(3 wks)

### Standards Numbering Notes

The numbering is not exactly parallel to the state standards but is designed to create some consistency across disciplines for the special education teachers who may be teaching multiple subjects.

The following system was used to number the science standards:

AAD.BIO1.LS1.1

Alternate academic diploma (AAD) standards

Biology I (BIO1) is the course

Life Science 1 (LS1) is the first core idea in the life science progression

1 is the standard number in the core idea (standards numbered consecutively within each cluster)