vuino	Chapter 9.1 - Energy and Life				
Essential Question(s):					
Questions:	Living things need to survive.				
	This energy comes from The energy in most food comes from				
	the				
	and some other types of organisms are able to use				
	energy from the sun to produce and are called <u>autotrophs.</u>				
	Other organisms, such as, cannot use the sun's				
	energy and obtain energy from the foods they consume.				
	These are called <u>heterotrophs.</u>				
	Chemical Energy and ATP				
	Energy comes in many forms including, heat and electricity.				
	Energy can be store in compounds, too.				
	An important chemical compound that use to store and				
	Release energy is <u>adenosine triphosphate</u> , abbreviated				
	 ATP is used by types of cells as their energy source. 				
	o ATP consists of:				
	1. Adenine				
	2. Ribose (acarbon)				
	3. 3 phosphate				
	Adenine Ribose 3 Phosphate groups				
	Adenine Ribose 3 Phosphate groups				
ADP					
•••	ATP				
Adenosine Diphosphate	Copyright Pearson Prentice Hell				
(ADP) + Phosphate					
Partially	Storing Engrav				
charged battery	Storing Energy ADD (adaptation disharmata) has a phasebata groups instead of three				
oll Copyright	ADP (adenosine diphosphate) has phosphate groups instead of three. A coll cap small amounts of energy by adding a phosphate group to				
	A cell can small amounts of energy by adding a phosphate group to ADP.				
Adenine Dibase • Discoulate	AUT.				
Adenine Ribose 2 Phosphate groups	Releasing Energy				
	Energy in ATP is by				
00*	breaking the chemical between the second and third				
ADP	phosphates.				

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Questions:				cellular activities, including		
	acti	ve transport acr	oss cell	, protein synthesis		
		l muscle contract				
	• ATP's	characteristics n	nake it exceptionally	as the basic		
		energy source of	f all			
				_·		
	Using Bio	Using Biochemical Energy				
				amount of ATP, because it		
		is not a good wa	y to store	amounts of energy.		
		in foods like		by using the energy		
				·		
Summary:	l .					
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