

NGSS DCI Quick Reference Sheet

6 th Grade	7 th Grade	8 th Grade
PS 3.3 Thermal Energy Transfer	PS 1.1 Atoms → Molecules	PS 2.1 Newton's 3 rd Law (Action/Reaction)
PS 3.4 Relationship between kinetic energy and temp	PS 1.2 Physical and Chemical change	PS 2.2 Newton's 1 st /2 nd Law
PS 3.5 Kinetic energy transfer	PS 1.3 Synthetic materials made from natural resources	PS 2.3 Electric/Magnetic Forces
	PS 1.4 Solids, Liquids, Gases	PS 2.4 Gravity is affected by Mass/Distance
LS 1.1 Living things are made of cells	PS 1.5 Conservation of Mass	PS 2.5 Electric/Magnetic Fields interact w/ objects
LS 1.2 Cell structure and systems		PS 3.1 Graph F=MA
LS 1.3 Body is made of systems of cells	LS 1.6 Photosynthesis	PS 3.2 Potential energy
LS 1.4 Animal behavior and plant structure drive reproduction in both	LS 1.7 Chemical reactions made new substances (food)	PS 4.1 Waves – Amplitude
LS 1.5 How environmental and genetic factors influence growth of organisms	LS 2.1 Resource availability	PS 4.2 Waves – Reflect, absorbed, transmitted
LS 1.8 Receptors send messages to the brain for behavior or memories	LS 2.2 Interactions in ecosystems	PS 4.3 Digitized signals more reliable than analog signals
LS 3.2 Asexual vs. sexual reproduction	LS 2.3 Conservation of matter and energy in ecosystems	
	LS 2.4 Changes physical and biological to ecosystem	LS 3.1 Mutations – Harmful or beneficial
ESS 2.4 Water cycle	LS 2.5 Maintaining biodiversity	LS 4.1 Fossil Records – Diversity and extinction
ESS 2.5 Weather systems		LS 4.2 Anatomical similarities and differences to infer evolutionary relationships

ESS 2.6 Weather → climate patterns	ESS 2.1 Cycling of earth's materials (rock cycle)	LS 4.3 Compare embryological development across multiple species
ESS 3.3 Monitoring human impact	ESS 2.2 Geological processes have changed earth's surface	LS 4.4 Genetic Variations → survival of the species organisms
ESS 3.5 Global warming	ESS 2.3 Fossil and rock evidence for plate motion	LS 4.5 How do humans affect inheritance of desired traits in organisms
	ESS 3.1 Geoscience processes cause uneven distribution of earth's mineral, energy and groundwater	LS 4.6 Probability to explain population trends
	ESS 3.2 Forecasting and preventing natural disasters	
		ESS 1.1 Earth/moon/sun model - Eclipses and seasons
		ESS 1.2 Gravity in solar system
		ESS 1.3 Analyze scale in solar system
		ESS 1.4 Geologic time scale
		ESS 3.4 Human population affects natural resources