NC CTS Strand Guides linked to Formative Assessment Probes

K-2V1= Uncovering Student Ideas in Primary Science-25 New Formative Assessment Probes for Grades K-2, Vol. 1 (Keeley, P., 2013)
V1 = Uncovering Student Ideas in Science-25 Formative Assessment Probes, Vol. I (Keeley, P., Eberle, F, & Farrin, L., 2005)
V2 = Uncovering Student Ideas in Science-25 More Formative Assessment Probes, Vol. 2 (Keeley, P., Eberle, F., & Tugel, J., 2007)
V3 = Uncovering Student Ideas in Science-Another 25 Formative Assessment Probes, Vol. 3 (Keeley, P., Eberle, F., & Dorsey, C., 2008)
V4 = Uncovering Student Ideas in Science-25 New Formative Assessment Probes, Vol. 4 (Keely, P., & Tugel, J., 2009)
PS-V1 = Uncovering Student Ideas in Physical Science-45 New Force and Motion Assessment Probes, Vol. 1 (Keeley, P., & Harrington, R., 2010)
PS-V2 = Uncovering Student Ideas in Physical Science-45 New Electricity and Magnetism Formative Assessment Probes (Keeley, P., & Harrington, R., 2014)
LS-V1 = Uncovering Student Ideas in Life Science-25 New Formative Assessment Probes, Vol. 1 (Keeley, 2011)
AS = Uncovering Student Ideas in Astronomy-45 New Formative Assessment Probes (Keeley, P., & Sneider, C., 2012)

NC Strand		Essential Standard	Probe Title	K-2 V1 2013	V1 2005	V2 2007	V3 2008	V4 2009	PS V1 2010	PS V2 2014	LS V1 2011	AS 2012
E1_Earth in the Universe	Earth: Shape	6.E.1, 6.E.2, EEn.1.1	Is Earth Really "Round"?									p 5
E1_Earth in the Universe	Earth: orbit, seasons, spin; rotate vs revolve	6.E.1, EEn.1.1	The Two Rs									p 27
E1_Earth in the Universe	Earth: orbit	6.E.1	What's Moving?									p 51
E1_Earth in the Universe	Earth: Shape,spin; Day-night cycle	4.E.1	What Causes Night and Day?									p 21
E1_Earth in the Universe	Earth, Moon, and Sun System; Moon's orbit	6.E.1	Does the Moon Orbit the Earth?									p 100
E1_Earth in the Universe	Earth, Moon, and Sun System; Moon's spin	6.E.1	Moon Spin									p 119
E1_Earth in the Universe	Earth, Moon, and Sun System; Moon phases and locations	4.E.1, 6.E.1	Chinese Moon									p 123
E1_Earth in the Universe	Earth, Moon, and Sun System; Moon phases	1.E.1, 4.E.1, 6.E.1	Gazing at the Moon		p 177							
E1_Earth in the Universe	Earth, Moon, and Sun System: Moon phases	4.E.1	Going Through a Phase		p 183							
E1_Earth in the Universe	Earth, Moon, and Sun System: Moon phases	4.E.1	Earth or Moon Shadow?									p 103
E1_Earth in the Universe	Earth, Moon, and Sun System: Moon phases	4.E.1, 6.E.1	Crescent Moon									p 127
E1_Earth in the Universe	Earth, Moon, and Sun System; Day/night cycle	3.E.1, 4.E.1	Darkness at Night			p 171						

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E1_Earth in the Universe	Earth, Moon, and Sun System; Day/night cycle	EEn.1.1	How Long Is a Day on the Moon?									p 131
E1_Earth in the Universe	Earth, Moon, and Sun System; scale and size	4.E.1	Emmy's Moon and Stars			p 177						
E1_Earth in the Universe	Earth, Moon, and Sun System; scale and size	6.E.1	Pizza Sun									p 55
E1_Earth in the Universe	Earth, Moon, and Sun System; scale and size	6.E.1	How Far Away is the Sun?									p 61
E1_Earth in the Universe	Earth, Moon, and Sun System; scale and size	6.E.1	Sizing Up the Moon									p 95
E1_Earth in the Universe	Earth, Moon, and Sun System; Seeing Objects	1.E.1	Objects in the Sky			p 185						
E1_Earth in the Universe	Earth, Moon, and Sun System; Seeing Objects	1.E.1, 6.E.1	Seeing the Moon									p 91
E1_Earth in the Universe	Earth, Moon, and Sun System; Seeing Objects, constellations	6.E.1	Changing Constellations									p 75
E1_Earth in the Universe	Earth, Moon, and Sun System; shadows	3.E.1	Me and My Shadow				p 185					
E1_Earth in the Universe	Earth, Moon, and Sun System; shadows	3.E.1	No Shadow									p 47
E1_Earth in the Universe	Earth, Moon, and Sun System; light reflection	4.E.1, 6.E.1	Moonlight					p 161				
E1_Earth in the Universe	Earth, Moon, and Sun System; lunar eclipse	6.E.1	Lunar Eclipse					p 167				
E1_Earth in the Universe	Earth, Moon, and Sun System; solar eclipse	6.E.1	Solar Eclipse					p 173				
E1_Earth in the Universe	Earth, Moon, and Sun System; comparing eclipses	6.E.1	Moon Phase and Solar Eclipse									p 109
E1_Earth in the Universe	Earth, Moon, and Sun System; solar eclipse	6.E.1	Comparing Eclipses									p 113
E1_Earth in the Universe	Earth, Moon, and Sun System; apparent movement of the Sun	1.E.1, 6.E.1	Sunrise to Sunset									p 43

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E1_Earth in the Universe	Solar System	3.E.1	What's Inside Our Solar System?									p 147
E1_Earth in the Universe	Solar System	3.E.1	How Do Planets Orbit the Sun?									p 153
E1_Earth in the Universe	Sun: surface features, sunspots	EEn.1.1	Sunspots									p 65
E1_Earth in the Universe	Seasons	6.E.1, EEn.1.1	Summer Talk				p 177					
E1_Earth in the Universe	Seasons	6.E.1, EEn.1.1	Why Is It Warmer in Summer?									p 79
E1_Earth in the Universe	Seasons, length of daylight	6.E.1	Shorter Days in Winter									p 69
E1_Earth in the Universe	Stars and Galaxies; location in day	3.E.1	Where Do Stars Go?				p 191					
E1_Earth in the Universe	Space Travel	6.E.1	Human Space Travel									p 165
E1_Earth in the Universe	Stars:composition	EEn.1.1	What Are Stars Made Of?									p 203
E1_Earth in the Universe	Earth-Sun system, shadows	K.E.1.2 1.E.1	When is My Shadow the Longest?	p 105								
E1_Earth in the Universe	Sun-Earth-Moon system,Moon,light, reflect	1.E.1.2 2.E.1.1	What Lights Up the Moon?	p 109								
E1_Earth in the Universe	Sun-Earth-Moon system,Moon,-light,phase	1.E.1.1	When Is the Next Full Moon?	p 113								
E2_Earth Systems, Structures & Processes	Earth: Gravity, shape	6.E.2	Falling Through the Earth									p 15
E2_Earth Systems, Structures & Processes	Earth: Shape, gravity	6.E.2	Where Do People Live?									p 11
E2_Earth Systems, Structures & Processes	Earth's Natural Resources; source	EEn.2.2	Where Does Oil Come From?					p 151				
E2_Earth Systems, Structures & Processes	Rock Cycle	3.E.2, 6.E.2	Beach Sand		p 163							

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E2_Earth Systems, Structures & Processes	Rocks and Minerals	1.E.2, 6.E.2	Is It a Rock? (Version 1)			p 151						
E2_Earth Systems, Structures & Processes	Rocks and Minerals	1.E.2, 6.E.2	Is It a Rock? (Version 2)			p 157						
E2_Earth Systems, Structures & Processes	Water Cycle	7.E.1, 8.E.1, EEn.2.3	Wet Jeans		p 155							
E2_Earth Systems, Structures & Processes	Water Cycle; condensation, evaporation	3.P.2, 7.E.1, EEn.2.3	Where Did the Water Come From?				p 163					
E2_Earth Systems, Structures & Processes	Water in the Earth System	6.E.2, 8.E.1, EEn.2.3	Where Would it Fall?					p 157				
E2_Earth Systems, Structures & Processes	Water Cycle; condensation, evaporation	2.E.1, 3.P.2, 5.E.1, 7.E.1, 8.E.1, EEn.2.3	What Are Clouds Made Of?				p 155					
E2_Earth Systems, Structures & Processes	Weather and Climate; precipitation	5.E.1, 7.E.1, 8.E.1	Rainfall				p 171					
E2_Earth Systems, Structures & Processes	Weather; solar radiation	5.E.1	Camping Trip					p 137				
E2_Earth Systems, Structures & Processes	Climate Change	4.L.1, 5.E.1, EEn.2.6, Bio.2.2	Global Warming					p 143				
E2_Earth Systems, Structures & Processes	Weathering and Erosion, shape of mountains	6.E.2, EEn.2.1	Mountain Age		p 169							

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E2_Earth Systems, Structures & Processes	earth materials, mountains, rock	1.E.2.1	What Makes up a Mountain	p 93								
E2_Earth Systems, Structures & Processes	earth materials, soil	1.E.2.1 and 1.E.2.2	Describing Soil	p 97								
E2_Earth Systems, Structures & Processes	earth materials, human made materials, rock	1.E.2.1 and 1.E.2.2	Is a Brick a Rock?	p 101								
E3_Earth History	Weathering and Erosion, shape of mountains	4.E.2, 8.E.2, 8.L.4	Mountain Age		p 169							
E3_Earth History	Weathering and Erosion	4.E.2, 6.E.2	Beach Sand		p 163							
E3_Earth History	Earth's Natural Resources; source	4.E.2, 8.P.2, Bio.2.2	Where Does Oil Come From?					p 151				
E3_Earth History	Fossil Evidence, Plate Tectonics	4.E.2, 8.E.2, 8.L.4, Bio.3.4	Mountaintop Fossil			p 165						
L1_Structure & Functions of Living Organisms	Animal Life, Classification	K.L.1, 1.L.1, 1.L.2, 2.L.1	Is it an Animal?	p 9	p 117							
L1_Structure & Functions of Living Organisms	characteristics of life, living and non living things, needs of living things	K.L.1, 1.L.1, 1.L.2,	Is it Living?	p 3								

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L1_Structure & Functions of Living Organisms	Plant behavior, Tropism	6.L.2	Rocky Soil								p 79	
L1_Structure & Functions of Living Organisms	Cells	5.L.1, 7.L.1, Bio.1.1	Is It Made of Cells?		p 131							
L1_Structure & Functions of Living Organisms	Cells, Levels of organization	3.L.1, 5.L.1	Human Body Basics		p 139							
L1_Structure & Functions of Living Organisms	Cell Size	5.L.1, 7.L.1, Bio.1.1	Whale and Shrew			p 137						
L1_Structure & Functions of Living Organisms	Cell Size	5.L.1, 7.L.1, Bio.1.1	Cells and Size				p 117					
L1_Structure & Functions of Living Organisms	Cells, Cell division, Growth	2.L.1, 5.L.1, 7.L.1, Bio.1.2	Sam's Puppy				p 125					
L1_Structure & Functions of Living Organisms	Cells, Plants, Germination	3.L.2, 6.L.2	Cucumber Seeds								p 9	
L1_Structure & Functions of Living Organisms	Cells, Single-celled organisms	7.L.1	Pond Water								p 33	
L1_Structure & Functions of Living Organisms	Cells, Atoms, Living vs. Non-living	7.L.1	Atoms and Cells								p 39	
L1_Structure & Functions of Living Organisms	Cells, Shape, Surface Area:Volume	8.L.1	Which One Will Dry Out Last?								p 45	

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L1_Structure & Functions of Living Organisms	Cells, Function of Chlorophyll	6.L.1, 7.L.1	Chlorophyll								p 51	
L1_Structure & Functions of Living Organisms	Cells, Human Body	7.L.1	Human Body								p 141	
L1_Structure & Functions of Living Organisms	Cells, Metabolic Waste	7.L.1	Human Excretory System								p 145	
L1_Structure & Functions of Living Organisms	Characteristics of Living Things	8.L.1	The Virus Debate								p 15	
L1_Structure & Functions of Living Organisms	Characteristics of Living Things, Life Processes	K.L.1, 1.L.1, 1.L.2, 5.L.1, 6.L.1, 7.L.1	Respiration				p 131					
L1_Structure & Functions of Living Organisms	Characteristics of Living Things, Life Processes	K.L.1, 1.L.1, 1.L.2, 8.L.3, Bio.1.1	Is It Living?		p 123							
L1_Structure & Functions of Living Organisms	Characteristics of Living Things	3.L.2, 4.L.1, 5.L.1, 6.L.1, 8.L.3, Bio.1.2	Functions of Living Things		p 147							
L1_Structure & Functions of Living Organisms	Health and Disease	4.L.2, 8.L.1, Bio.3.4	Catching a Cold					p 125				
L1_Structure & Functions of Living Organisms	Health and Disease	8.L.1	Antibiotics								p 151	
L1_Structure & Functions of Living Organisms	Human Body Systems	7.L.1, Bio.1.1	Human Body Basics		p 139							

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L1_Structure & Functions of Living Organisms	Human Body Systems	5.L.1, 7.L.1, 8.L.5, Bio.4.1	Digestive System					p 131				
L1_Structure & Functions of Living Organisms	Structure, parts and wholes, systems	K.L.1, 3.L.2	Is it made of parts?	p 21								
L1_Structure & Functions of Living Organisms	senses, information processing, plant tropisms	K.E.1, 1.L.1, 3.L.1, 4.L.1	Senses	p 35								
L1_Structure & Functions of Living Organisms	Plant Life, Classification	K.L.1 1.L.1, 1.L.2, 3.L.2, 6.L.1	Is It a Plant?	p 15		p 93						
L1_Structure & Functions of Living Organisms	animals, needs of living things, breathing	K.L.1, 1.L.1, 1.L.2	Do they need air?	p 31								
L1_Structure & Functions of Living Organisms	seeds, needs of living things, germination, closed system	K.L.1, 1.L.1, 1.L.2, 3.L.2	Seeds in a Bag	p 25								
L1_Structure & Functions of Living Organisms	Plant Life, Seeds	1.L.1, 1.L.2, 3.L.2, 6.L.1, 6.L.2, 8.L.3, 8.L.5	Needs of Seeds			p 101						

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L1_Structure & Functions of Living Organisms	Plant Growth, Behavioral Response	1.L.1, 1.L.2, 3.L.2, 6.L.1, 6.L.2, Bio.2.1	Plants in the Dark and Light			p 107						
L1_Structure & Functions of Living Organisms	Plant Structure, Photosynthesis	6.L.1, 8.L.5	Apple Tree								p 57	
L1_Structure & Functions of Living Organisms	Reproduction, Growth, and Development	2.L.1, 8.L.5	Chicken Eggs					p 105				
L1_Structure & Functions of Living Organisms	Reproduction, Growth, and Development (Life Cycles)	2.L.1, 7.L.1, Bio.2.1	Does It Have a Life Cycle?				p 111					
L1_Structure & Functions of Living Organisms	Reproduction (Sexual)	7.L.2	Eggs								p 117	
L1_Structure & Functions of Living Organisms	Reproduction, Growth, and Development (Life Cycles)		Chrysalis								p 123	
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L2_Ecosystems	seeds, germination	1.L.1, 1.L.2, 3.L.2, 1.E.2.2	Big and small seeds	p 39								
L2_Ecosystems	Cycling of Matter in Ecosystems, Decay	5.L.2, 8.L.3, Bio.2.1	Earth's Mass				p 147					
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L2_Ecosystems	Flow of Energy Through Ecosystems	6.L.2, 8.L.3	Food Chain Energy								p 91	
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L3_Evolution & Genetics	Adaptation, Natural Selection, Variation	Bio.2.1, Bio.3.4	Adaptation					p 113				
L3_Evolution & Genetics	Adaptation, Natural Selection	7.L.2, 8.L.4	Changing Environment								p 109	
L3_Evolution & Genetics	Biological Classification	8.L.4, Bio.3.5	Is It an Animal?		p 117							
L3_Evolution & Genetics	Biological Classification	8.L.4, Bio.3.5	Is It a Plant?			p 93						
L3_Evolution & Genetics	Biological Classification		No Animals Allowed								p 21	
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L3_Evolution & Genetics	Biological Classification	8.L.4	Is It an Amphibian?								p 27	
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L3_Evolution & Genetics	Mechanism of Inheritance (Genetics)	7.L.2	Eye Color								p 135	
L3_Evolution & Genetics	Natural Selection	4.L.1, 8.L.4, Bio.3.4	Is It "Fitter"?					p 119				
L4_Molecular Biology	Chemistry of Life	Bio.4.1	Is It Made of Molecules?		p 85							
L4_Molecular Biology	Chemistry of Life		Is It Made of Cells?		p 131							
L4_Molecular Biology	Food and Nutrition	1.L.1, 4.L.2, 8.L.5, Bio.4.1	Is It Food?					p 91				
L4_Molecular Biology	Photosynthesis and Respiration	Bio.4.2	Seedlings in a Jar		p 67							
L4_Molecular Biology	Photosynthesis and Respiration	Bio.4.2	Functions of Living Things		p 147							
L4_Molecular Biology	Photosynthesis and Respiration	3.L.2, 4.L.1, 6.L.1, 6.L.2, 8.L.5, Bio.4.2	Is It Food for Plants?			p 113						
L4_Molecular Biology	Photosynthesis, Transformation of Matter	3.L.2, 6.L.1, 8.L.5, Bio.4.2	Giant Sequoia Tree			p 121						
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L4_Molecular Biology	Photosynthesis and Respiration	6.L.1, 8.L.5	Light and Dark								p 63	
L4_Molecular Biology	Photosynthesis and Respiration	6.L.1, 6.L.2, 8.L.5	Food for Corn								p 69	
P1_Force & Motion	Forces, Friction, Newton's first law	7.P.1, PSc.1.2, Phy.1.2	A World Without Friction						p 87			
P1_Force & Motion	Balanced Forces	7.P.1, PSc.1.2, Phy.1.2	Apple in a Plane						p 107			
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P1_Force & Motion	Forces, Circular Motion, Newton's first law	5.P.1, 7.P.1, PSc.1.2, Phy.1.2	Ball on a String						p 111			
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P1_Force & Motion	Falling Objects	5.P.1, 7.P.1, PSc.1.2, Phy.1.2	Dropping Balls				p 77					
P1_Force & Motion	Forces, Newton's third law	PSc.1.2, Phy.1.2	Equal and Opposite						p 131			
P1_Force & Motion	Gravitational Force	7.P.1, PSc.1.2, Phy.1.2	Experiencing Gravity						p 157			
P1_Force & Motion	Forces, Newton's third law	PSc.1.2, Phy.1.2	Finger Strength Contest						p 127			
P1_Force & Motion	Interpreting Motion	7.P.1, PSc.1.1, Phy.1.1	Following Jack- Part 1						p 23			
P1_Force & Motion	Motion Graphs	7.P.1, PSc.1.1, Phy.1.1	Following Jack- Part 2						p 27			
P1_Force & Motion	Relationship between Force & Motion	7.P.1, PSc.1.2, Phy.1.2	Force and Motion Ideas						p 79			
P1_Force & Motion	Acceleration, Free fall	PSc.1.2, Phy.1.2	Free Falling Objects						p 167			
P1_Force & Motion	Forces, Friction	7.P.1, PSc.1.2, Phy.1.2	Friction						p 83			
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P1_Force & Motion	Gravitational Force	PSc.1.2, Phy.1.2	Gravity Rocks!						p 171			
P1_Force & Motion	Distance, Position	3.P.1, 5.P.1	How Far Did It Go?						p 15			
P1_Force & Motion	Gravitational Force	PSc.1.2, Phy.1.2	Is the Moon Falling?									p 139
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P1_Force & Motion	Forces, Newton's second law	PSc.1.2, Phy.1.2	Lifting Buckets						p 123			
P1_Force & Motion	Magnetism	4.P.1	Magnets in Water					p 67				
P1_Force & Motion	Sound	2.P.1, 6.P.1	Making Sound		p 43							
P1_Force & Motion	Acceleration, Speed, Velocity	7.P.1, PSc.1.1, Phy.1.1	NASCAR Racing						p 51			
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P1_Force & Motion	Forces, Circular Motion, Newton's first law	Phy.1.2	Riding in a Car						p 135			
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P1_Force & Motion	Forces, Circular Motion, Newton's first law	5.P.1, 7.P.1, PSc.1.2, Phy.1.2	Rolling Marbles				p 71					
P1_Force & Motion	Forces, Energy, Friction	7.P.1, PSc.1.2, Phy.1.2	Rolling to a Stop						p 91			
P1_Force & Motion	Constant Speed, Changing speed	7.P.1, PSc.1.2, Phy.1.2	Skate Park						p 19			
P1_Force & Motion	Design, Newton's first law	7.P.1, PSc.1.2, Phy.1.2	Spaceships						p 103			
P1_Force & Motion	Speed, units	7.P.1, PSc.1.1, Phy.1.1	Speed Units						p 39			
P1_Force & Motion	Gravitational Force	3.P.1, PSc.1.2, Phy.1.2	Standing on One Foot					p 61				
P1_Force & Motion	Forces, Defining	1.P.1, 4.P.1, 7.P.1	Talking About Forces						p 71			
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P1_Force & Motion	Gravitational Force	7.P.1, PSc.1.2, Phy.1.2	The Tower Drop						p 177			
P1_Force & Motion	Falling Objects	PSc.1.2, Phy.1.2	Why Things Fall						p 115			

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P1_Force & Motion	Electric Force	4.P.1.2	What Happens When You Bring a Balloon Near a Wall?							p 27		
P1_Force & Motion	Electric Force	4.P.1.2	How Will the Balloons Move?							p 19		
P1_Force & Motion	magnetic force	4.P.1.1	Can Magnetics Push or Pull Without Touching?							p 111		
P1_Force & Motion	magnetic force	4.P.1.1	What Happens When You Wrap a Magnet with Aluminum Foil?							p 123		
P1_Force & Motion	magnetic force	4.P.1.1	Does a Magnet Work without Air?							p 131		
P1_Force & Motion	Magnetism	1.P.1.2	Big and Small Magnets	p 87								
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P2_Matter: Properties & Change	Physical Properties and Change, boiling point	5.P.3, 6.P.2, PSc.2.1, Chm.2.1	Boiling Time and Temperature			p 53						
P2_Matter: Properties & Change	Conservation of Matter, Chemical Change	5.P.2, 8.P.1, PSc.2.2, Chm.2.2	Burning Paper					p 23				
P2_Matter: Properties & Change	Chemical Bonding	PSc.2.2, Chm.1.2	Chemical Bonds			p 71						

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P2_Matter: Properties & Change	Conservation of Matter	5.P.2, 8.P.1	Cookie Crumbles		p 61							
P2_Matter: Properties & Change	Conservation of Matter	8.P.1, PSc.2.2, Chm.2.2	Earth's Mass				p 147					
P2_Matter: Properties & Change	Behavior and Characteristics of Gases	3.P.2, 6.P.2, 8.P.1, PSc.2.1	Floating Balloon				p 39					
P2_Matter: Properties & Change	Density	3.P.2, 6.P.2	Floating Logs			p 27						
P2_Matter: Properties & Change	Physical Properties and Change, freezing point	5.P.3, 6.P.2, PSc.2.1, Chm.2.1	Freezing Ice			p 59						
P2_Matter: Properties & Change	Conservation of Matter, Characteristics of Gases	3.P.2, 6.P.2, 8.P.1	Hot and Cold Balloons				p 45					
P2_Matter: Properties & Change	Conservation of Matter, Physical Change	2.P.2, 3.P.2, 4.P.2, 5.P.2, 8.P.1	Ice Cubes in a Bag		p 49							
P2_Matter: Properties & Change	Physical Properties and Change, melting	5.P.3, 6.P.2, PSc.3.1	Ice Water					p 45				
P2_Matter: Properties & Change	Particulate Nature of Matter (Atoms and Molecules)	2.P.2, 3.P.2, 8.P.1, PSc.2.1	Is It a Solid?				p 25					

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P2_Matter: Properties & Change	Particulate Nature of Matter	3.P.2, 4.P.2, 5.P.2, 6.P.2, 8.P.1, PSc.2.1	Is It Matter?		p 79							
P2_Matter: Properties & Change	Physical Change, melting, dissolving	5.P.2, 8.P.1	Is It Melting?		p 73							
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P2_Matter: Properties & Change	Conservation of Mass, Physical Change, Mass vs weight	8.P.1, PSc.2.1	Pizza Dough						p 144			
P2_Matter: Properties & Change	Particulate Nature of Matter, Crystalline solids	PSc.2.2, Chm.1.2	Salt Crystals					p 39				
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P2_Matter: Properties & Change	physical properties, sinking and floating	K.P.2	Watermelon and Grape	p 49								
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P2_Matter: Properties & Change	electrical charge	4.P.2	Can It Be Electrically Charged?							p 23		
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