

Errata Sheet

Washington State K-12 Science Learning Standards Version 1.2 June 2010

The following clarifications have been made to the Washington State K-12 Science Learning Standards. Clarifications are indicated by ~~strikeout~~ for deletions and underline for additions.

Page #	Original	Clarification
7	Big Idea: Earth and Space Science Grade 2-3 The Sun's Daily Motion The Sun and Moon have patterns of movement that can be inferred by observing and recording shadows cast by the sun.	Big Idea: Earth and Space Science Grade 2-3 The Sun's Daily Motion The Sun and Moon <u>appear to</u> have patterns of movement that can be inferred by observing and recording shadows cast by the sun.
7	Big Idea: Earth and Space Science Grades K-1 Observing the Sun and Moon The Sun and the Moon have patterns of movement that can be observed and recorded.	Big Idea: Earth and Space Science Grades K-1 Observing the Sun and Moon The Sun and Moon <u>appear to</u> have patterns of movement that can be observed and recorded.
21	Big Idea: Matter: Properties and Change (PS3)	Big Idea: Matter: Properties and Change (PS3) <u>Energy: Transfer, Transformation and Conservation (PS3)</u>
22	Intro paragraph, sentence one Students learn that objects they see in the sky, such as clouds and birds, change from minute to minute, while other things, such as the Sun and Moon, follow patterns of movement if observed carefully over time.	Intro paragraph, sentence one Students learn that objects they see in the sky, such as clouds and birds, change from minute to minute, while other things, such as <u>apparent movement of</u> the Sun and Moon, follow patterns of movement if observed carefully over time.
24	Big Idea: Earth Systems, Structures and Processes (ES2)	Earth Systems, Structures and Processes (ES2) Big Idea: <u>Earth History (ES3)</u>
24	Intro Sentence No standards for K-1 Earth Systems, Structures and Process because the . . .	Intro Sentence No standards for K-1 Earth Systems, Structures and Process <u>Earth History</u> because the . . .
37	Intro paragraph, sentence two In grades 2-3 students learn that carefully observing and recording shadows provides an excellent way to trace the daily movement of the Sun through the sky, which extends their observational skills.	Intro paragraph, sentence two In grades 2-3 students learn that carefully observing and recording shadows provides an excellent way to trace the daily <u>apparent</u> movement of the Sun through the sky, which extends their observational skills.
37	2-3 ES1A Performance Expectation Mark the position of shadows cast by a stick over the course of a few hours, and <i>infer</i> how the Sun has moved during . . .	2-3 ES1A Performance Expectation Mark the position of shadows cast by a stick over the course of a few hours, and <i>infer</i> how the Sun has <u>appeared to moved</u> during . . .
53	4-5 ES2C Performance Expectation <ul style="list-style-type: none"> • Describe the <i>forces</i> of water and <i>wind</i> as major causes of <i>erosion</i>. • Identify local examples where <i>erosion</i> has occurred and <i>describe</i> the most likely caused the <i>erosion</i>. 	4-5 ES2C Performance Expectation <ul style="list-style-type: none"> • Describe the forces of water <u>how</u> water and <i>wind</i> cause <i>erosion</i>. • Identify local examples where <i>erosion</i> has occurred and <i>describe</i> the process that the most likely caused the <u>cause of the</u> <i>erosion</i>.

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53	4-5 ES2D Content Standard Soils are formed by <i>weathering</i> and <i>erosion</i> , decay of plant <i>matter</i> , settling of volcanic ash, transport . . .	4-5 ES2D Content Standard Soils are formed by <i>weathering</i> and <i>erosion</i> , decay of plant <i>matter</i> , settling of volcanic ash , transport by. . . .
53	4-5 ES2D Performance Expectation <i>Explain how</i> the formation of soils is related to the following processes: <i>weathering</i> of rock; decay of plant <i>matter</i> ; settling of volcanic ash, transport . . .	4-5 ES2D Performance Expectation <i>Explain how</i> the formation of soils is related to the following processes: <i>weathering</i> of rock; decay of plant <i>matter</i> ; settling of volcanic ash , transport . . .
55	4-5 LS1B Content Standard Each animal has different structures and behaviors that serve different <i>functions</i> .	4-5 LS1B Content Standard Each animal Plants and animals have different structures and behaviors that serve different <i>functions</i> .
55	4-5 LS1E Performance Expectation Based on the above list, develop a balanced plan for eating that will allow you to build and maintain your body.	4-5 LS1E Performance Expectation Based on the above list, d Develop a balanced plan for eating that will allow you to build and maintain your body.
56	4-5 LS2A Content Standard An <i>ecosystem</i> includes all of the plant and animal populations and nonliving resources in a given area. Plants and animals depend on one another and the nonliving resources in their <i>ecosystem</i> to help them survive.	4-5 LS2A Content Standard An <i>ecosystem</i> includes all of the plant and animal <u>plant and animal</u> populations and nonliving <u>physical factors</u> resources in a given area. Plants and animals <u>Living organisms</u> depend on one another and the nonliving <u>physical factors</u> resources in their <i>ecosystem</i> to help them survive.
56	4-5 LS2B Content Standard Animals get food by eating . . .	4-5 LS2B Content Standard Animals get food <u>energy</u> by eating . . .
66	6-8 PS1B Content Standard <i>Friction</i> is a <i>force</i> that acts to slow or stop the <i>motion</i> of objects.	6-8 PS1B Content Standard <i>Friction</i> is a <i>force</i> acts to slow or stop the motion of objects. <u>that can help objects start moving, stop moving, slow down or can change the direction of the object's motion.</u>
66	6-8 PS1C Content Standard Unbalanced <i>forces</i> will cause changes in the <i>speed</i> or direction of an object's <i>motion</i> .	6-8 PS1C Content Standard Unbalanced <i>forces</i> will cause changes in the <i>speed</i> or direction of an object's <i>motion</i> . <u>The motion of an object will stay the same when forces are balanced.</u>
68	6-8 PS3B Content Standard <i>Conduction</i> , <i>radiation</i> , and <i>convection</i> , or <i>mechanical mixing</i> , are the means of heat <i>transfer</i> .	6-8 PS3B Content Standard <i>Conduction</i> , <i>radiation</i> , and <i>convection</i> , or <i>mechanical mixing</i> , are the means of <u>heat energy</u> transfer .

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68	6-8 PS3B Performance Expectation Use everyday examples of <i>conduction</i> , <i>radiation</i> , and <i>convection</i> , or <i>mechanical mixing</i> , to illustrate the <i>transfer</i> of heat energy from warmer . . .	6-8 PS3B Performance Expectation Use everyday examples of <i>conduction</i> , <i>radiation</i> , and <i>convection</i> , or <i>mechanical mixing</i> , to illustrate the <i>transfer</i> of heat energy from warmer . . .
70	6-8 ES1B Content Standard Earth is the third planet from the sun in a <i>system</i> that includes the <i>Moon</i> , the Sun, seven other major planets and their <i>moons</i> , and smaller objects such as <i>asteroids</i> , <i>plutoids</i> , and <i>comets</i> .	6-8 ES1B Content Standard Earth is the third planet from the sun in a <i>system</i> that includes the <i>Moon</i> , the Sun, seven other major planets and their <i>moons</i> , and smaller objects such as <i>asteroids</i> , <i>plutoids</i> , <i>dwarf planets</i> and <i>comets</i> .
74	Big Idea: Structure and Function of Organisms (LS1)	Big Idea: Structure and Function of <u>Living</u> Organisms (LS1)
74	6-8 LS1D Content Standard But plants have specialized cell parts, such as <i>chloroplasts</i> for photosynthesis and cell walls, because they are <i>producers</i> and do not move.	6-8 LS1D Content Standard But plants have specialized cell parts, such as <i>chloroplasts</i> for photosynthesis and cell walls, because they are <i>producers</i> and do not move <u>which provide plants their overall structure.</u>
76	6-8 LS2C Performance Expectation <i>Explain that</i> plants are the <i>only organisms</i> that make their own food. Animals cannot survive without plants because animals get food by eating plants or other animals that eat plants.	6-8 LS2C Performance Expectation <i>Explain that</i> <u>plants <i>producers</i></u> are the <i>only organisms</i> that make their own food. Animals cannot survive without <u>plants <i>producers</i></u> because animals get food by eating <u>plants <i>producers</i></u> or other animals that eat <u>plants <i>producers</i></u> .
78	6-8 LS3C Content Standard <i>Sexual reproduction</i> leads to greater <i>diversity of characteristics</i> because children inherit <i>genes</i> from both parents.	6-8 LS3C Content Standard <i>Sexual reproduction</i> leads to greater <i>diversity of characteristics</i> because children <u>offspring</u> inherit <i>genes</i> from both parents.
88	Intro Paragraph, sentence three Students are able to calculate average speed, I, and acceleration.	Intro Paragraph, sentence three Students are able to calculate average speed, I <u>velocity</u> , and acceleration.
90	9-11 PS2D Content Standard Chemical formulas for <i>ionic compounds</i> represent the proportion of <i>ion</i> of each <i>element</i> in the <i>ionic array</i> .	9-11 PS2D Content Standard Chemical formulas for <i>ionic compounds</i> represent the proportion of <i>ion</i> of each <i>element</i> in the <i>ionic array crystal</i> .
90	9-11 PS2D Performance Expectation <i>Explain</i> the meaning of a chemical formula for an <i>ionic array</i> (e.g., NaCl).	9-11 PS2D Performance Expectation <i>Explain</i> the meaning of a chemical formula for an <i>ionic array crystal</i> (e.g., NaCl).

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93	9-11 PS3A Content Standard Although <i>energy</i> can be <i>transferred</i> from one object to another and can be <i>transformed</i> from one form of <i>energy</i> to another <i>form</i> , the total <i>energy</i> in a <i>closed system</i> is constant and can neither be created nor destroyed. (conservation of Energy)	9-11 PS3A Content Standard Although <i>energy</i> can be <i>transferred</i> from one object to another and can be <i>transformed</i> from one form of <i>energy</i> to another <i>form</i> , the total <i>energy</i> in a <i>closed system</i> is constant and can neither be created nor destroyed. <u>(Conservation of Energy) remains the same. The <i>concept of conservation of energy</i>, applies to all physical and chemical changes.</u>
95	9-11 ES1A Content Standard During their active periods, stars produce heavier elements, starting . . .	9-11 ES1A Content Standard During <u>most of</u> their “lives” active periods, stars produce heavier elements, starting . . .
95	9-11 ES1B Content Standard If we were to run time backwards, we would find that all of the galaxies were in the same place 13.7 billion years ago.	9-11 ES1B Content Standard If we were to run time backwards, we would find that all of the galaxies were in the same place 13.7 billion years ago <u>the universe gets constantly smaller, shrinking to almost zero size 13.7 billion years ago.</u>
96	9-11 ES2B Performance Expectation Explain how the <i>climate</i> in the Pacific Northwest region is affected by seasonal weather <i>patterns</i> , as well as other <i>factors</i> such as the addition of greenhouse <i>gases</i> to the <i>atmosphere</i> and proximity to mountain ranges and to the ocean.	9-11 ES2B Performance Expectation Explain how the <i>climate</i> in the Pacific Northwest region is affected by seasonal weather <i>patterns</i>, as well as other <i>factors</i> such as the addition of greenhouse <i>gases</i> to the <i>atmosphere</i> and proximity to mountain ranges and to the ocean <u>the factors that affect climate in different parts of Washington state.</u>
96	9-11 ES2C Content Standard Earth is a <i>system</i> that contains a fixed amount . . .	9-11 ES2C Content Standard Earth is a <i>system</i> that contains <u>essentially</u> a fixed amount . . .
96	9-11 ES2D Content Standard The Earth does not have infinite resources; increasing human consumption places severe stress on the natural processes that renew some resources and it depletes those resources that cannot be renewed.	9-11 ES2D Content Standard The Earth does not have infinite resources; increasing human consumption places severe stress on <u>impacts</u> the natural processes that renew some resources and it depletes those <u>other resources including those</u> that cannot be renewed.
98	9-11 LS1D Performance Expectation Describe the structure of the and how the membrane regulates the flow of materials into and out of the cell.	9-11 LS1D Performance Expectation Describe the structure of the <u>cell membrane</u> and how the membrane regulates the flow of materials into and out of the cell.
116	Glossary Fission: Splitting in half. Nuclear fission refers to the process by which the nucleus of a large atom is split into two smaller atomic nuclei.	Glossary Fission: Splitting in half. Nuclear fission refers to <u>is</u> the process by which the nucleus of a large atom is split into two smaller atomic nuclei.

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118	<p>Glossary</p> <p>Ionic array: A formation of atoms held together by ionic bonds. Crystals of sodium chloride (salt), for example, does not form molecules. Rather, ions of sodium (Na) and chorine (Cl) are held together by ionic bonds in a three-dimensional ionic array.</p>	<p>Glossary</p> <p>Ionic array <u>crystal</u>: A formation of atoms held together by ionic bonds. Crystals of sodium chloride (salt), for example, does not form molecules. Rather, ions of sodium (Na) and chorine (Cl) are held together by ionic bonds in a three-dimensional ionic array <u>crystal</u>.</p>
123	<p>Glossary</p> <p>Technological design process: A sequence of steps used to define and solve a problem. The steps may include a definition of the problem, research about the problem, generation of possible solutions, synthesis or selection of one or more promising solutions, construction and testing of a model or prototype, redesign and reporting.</p>	<p>Glossary</p> <p>Technological design process: A sequence of steps used to define and solve a problem. <u>The steps may include: defining the problem in terms of criteria and constrains, gathering information about the problem through research, generating ideas for possible solutions, synthesizing or selecting of one or more promising ideas or solutions, constructing a plan or model to test the proposed idea or solution, redesigning if needed and communicating the results.</u></p>