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| Fifth Grade Science Planning Guide | 2015-2016 |
| <http://science.dmschools.org>  |  |



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| ***Literacy Unit*** | ***Theme*** | ***Iowa Core Standard*** ***3-5*** | ***I Can Statements*** | ***Materials/ Resources*** | ***Project Ideas*** | ***Vocabulary needed*** |
| 1 | Our Solar System | Understand and apply knowledge of properties, movements and locations of objects in the solar system. | * I can recognize that most objects in the solar system are in regular and predictable motion.
* I can describe how the rotation of the earth on its axis every 24 hours produces the day-and-night cycle.
* I can describe the phases of the moon.
* I can describe how the eight planets and many other objects revolve around our Sun in predictable patterns.
 | Delta Solar System Kit activities 1-12***Heartland books and resources:*** <http://media1.aea11.k12.ia.us/display/041/wwk770?kw=solar+system&au=I&submit=1> ***Online resources:***<http://www.kidsastronomy.com/><http://www.frontiernet.net/~kidpower/astronomy.html><http://www.sciencekids.co.nz/astronomy.html><http://www.nasa.gov/audience/forkids/kidsclub/flash/index.html><http://spaceplace.nasa.gov/><http://www.aea11.k12.ia.us/educators/science/Star_Lab.html> | Delta Solar System Kit (activities 1-12)***Other Lesson Ideas:***Check out the Star Lab from Heartland:<http://www.aea11.k12.ia.us/educators/science/Star_Lab.html>(You need to have received the Star Lab training in order to check out the equipment. If you have not, contact Peg Christensen at the above link to find out more about upcoming training opportunities) | asteroid, astronomer, atmosphere, axis,comet, crater, ellipse, gas giant,gravity, inner planet, meteor, Moon ,orbit, outer planet, phase, revolution, rotate, satellite,solar system, space probe,star, telescope,  |

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| 4 | Food and **N**utrition | Understand and apply knowledge of personal health and wellness issues. | * I can identify how personal choices impact health and disease prevention.
* I can describe preventive physical and mental health measures, including proper diet, nutrition, and exercise.
* I can relate the results of investigation and experiments to the amount of chemicals in foods.
* I can make appropriate food choices based on nutritional content.
 | Foss Kit “Food and Nutrition” investigations 1-4***Heartland Book Resources:***<http://media1.aea11.k12.ia.us/display/041/wwk770?kw=food+and+nutrition&au=I&submit=1>***Online Resources:***<http://www.nourishinteractive.com/nutrition-education-printables><http://kidshealth.org/kid/nutrition/><http://www.ncagr.gov/cyber/kidswrld/nutrition/><http://nutritionforkids.com/kidactivities.htm><http://www.nutrition.gov/life-stages/children/kids-corner><http://www.superkidsnutrition.com/nutrition-resources/kidsactivities/><http://www.beahealthyhero.org/><http://kidshealth.org/kid/closet/activities/fgp_interactive.html><http://www.pbs.org/teachers/lunchlab/lessonplans/> | Foss Kit “Food and Nutrition” investigations 1-4***Other Lesson Ideas:***Have students create a food journal for 48 hours and compare their foods to the recommendations on the food pyramid. Look at the following website: [http://www.time.com/time/photogallery/0,29307,1626519,00.html](http://www.time.com/time/photogallery/0%2C29307%2C1626519%2C00.html)Discuss what each family across the globe eats in a week. How do other countries compare to the United States?Invite a nutritionist from a local hospital to talk with your students about the importance of a balanced diet. | nutrition, carbohydrates, fats, protein, grains, nutritional guide, food pyramid  |
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| **6** | Variables in Science | Plan and conduct scientific investigations. Use appropriate tools and techniques to gather, process, and analyze data. Incorporate mathematics in science inquiries. Use evidence to develop reasonable explanations. Communicate scientific procedures and explanations. Follow appropriate safety procedures when conducting investigations. | * I can determine what constitutes evidence.
* I can judge the merits or strengths of the data and information used to make explanations.
* I can use tools appropriately to gather information during an experiment.
* I can construct a simple graph using data from an experiment.
* I can identify the variable in a simple experiment
 | Foss Kit “Variables” ***Online Resources:*** **Pendulums** <http://pbskids.org/zoom/games/pendulum/> <http://www.imcpl.org/kids/blog/?p=8891> <http://www.sciencebuddies.org/science-fair-projects/project_ideas/Phys_p016.shtml> **Life Boats (buoyancy)**<http://www.ehow.com/info_8700970_buoyancy-activities-elementary.html><http://sciencenetlinks.com/lessons/buoyant-boats/>**Mythbusters explain buoyancy**<http://science.howstuffworks.com/6540-mythbusters-lets-talk-buoyancy-video.htm>**Rubber Band Airplanes**<http://www.sciencekids.co.nz/lessonplans/flight/flightintroduction.html>**Catapults** <http://science.discovery.com/tv-shows/punkin-chunkin/divisions/catapults.htm> <http://kids.discovery.com/games/just-for-fun/catapult> <http://www.wonderville.ca/asset/medieval-levers> <http://www.buzzle.com/articles/catapult-history.html> <http://www.squidoo.com/catapult-lessons>  | Foss Kit Variables | variable, experiment, pendulum, swing, cycle, mass, friction, catapult, angle, position, launch, lift, gravity, buoyancy |