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| Fourth 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*** |
| 2 | The Human Body | Understand and apply knowledge of basic human body systems and how they work together. | * I can locate some of the major bones in the human body.
* I can explain why we need joints in order to move.
* I can build a model to show how bones and muscles work together to create movement.
* I can determine my level of coordination through investigation.
 | Foss Kit “Human Body” Investigations 1-4***Heartland Book resources:*** <http://media1.aea11.k12.ia.us/display/041/wwk770?kw=bones+and+muscles&au=I&submit=1>***Online Resources***<http://www.sciencekids.co.nz/gamesactivities/movinggrowing.html><http://kidshealth.org/kid/htbw/><http://www.pbs.org/teachers/sid/activities/humanbody/>]<http://www.makemegenius.com/cool_facts.php?mId=28><http://www.kidsbiology.com/human_biology/><http://www.kidsbiology.com/human_biology/>***Scholastic Human Body PBL Unit:***<http://www.scholastic.com/teachers/unit/human-body-everything-you-need> | Foss Kit “Human Body”, Investigations 1-4 | bone, muscle, skeleton, joint, cartilage, tendon, ligament, mobile, immobile, opposable, contract, stimuli, coordination |

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| ***Literacy Unit*** | ***Theme*** | ***Iowa Core Standard*** ***3-5*** | ***I Can Statements*** | ***Materials/ Resources*** | ***Project Ideas*** | ***Vocabulary needed*** |
| **3** | Earth Materials | Understand and apply knowledge of properties and uses of earth materials. | * I can describe the properties of rocks.
* I can determine the hardness of a mineral based on a scratch test.
* I can differentiate between a rock and a mineral.
 | Foss Kit “Earth Materials” Investigations 1-4***Heartland Related Books:***<http://media1.aea11.k12.ia.us/display/041/wwk770?kw=rocks+and+minerals&au=I&submit=1>***Online Resources:***<http://www.sciencekids.co.nz/geology.html><http://kids.usa.gov/teens-home/science/geology/index.shtml><http://www.onegeology.org/extra/kids/><http://scienceforkids.kidipede.com/geology/><http://kids.earth.nasa.gov/archive/career/geologist.html><http://education.usgs.gov/><http://www.sciencekids.co.nz/sciencefacts/earth/rocksandminerals.html><http://www.rocksforkids.com/><http://www.mineralogy4kids.org/> | Foss Kit “Earth Materials” Investigations 1-4 | geologist, crystal, rock, mineral, calcite, granite, scratch, hardness |
| ***Literacy Unit*** | ***Theme*** | ***Iowa Core Standard*** ***3-5*** | ***I Can Statements*** | ***Materials/ Resources*** | ***Project Ideas*** | ***Vocabulary needed*** |
| **6** | Environments | Understand and apply knowledge of environmental stewardship. | * I can demonstrate how humans change environments in ways that can be either beneficial or detrimental to themselves or other organisms.
* I can recognize the elements of a terrestrial environment.
* I can observe a terrarium over time and record changes in my journal.
* I can recognize the elements of an aquatic environment.
* I can observe an aquatic environment over time and record changes in my journal.
 | Foss Kit “Environments” (Investigations 1,2,4,5)***Heartland AEA resources/books*** <http://media1.aea11.k12.ia.us/display/041/wwk770?kw=environmental+science&au=I&submit=1>***Online Resources:***<http://dnr.wi.gov/eek/><http://environment.nationalgeographic.com/environment/><http://kids.niehs.nih.gov/><http://www.4-h.org/youth-development-programs/4-h-science-programs/environmental-science-alternative-energy/><http://www.sciencenewsforkids.org/category/earthsky/environment/><http://www.earthskids.com/ek_environment.aspx><http://fossweb.schoolspecialty.com/web/foss-fossweb/moduledetail?dDocName=D1445091&xImgSource=D1109128&xModuleName=Environments><http://www.iowadnr.gov/Education/ForTeachers.aspx> | Foss Kit “Environments” (Investigations 1,2,4,5)***Other Lesson Ideas:***Have the students research the effects of various types of pollution (air, water, land) on a specific environment (terrestrial or aquatic) and the effect it has had on an animal in that environment. Create a brochure showing the parts of the environment and how human actions have impacted it.Invite a naturalist from the Iowa DNR to speak to your students about wildlife and environmental management in Iowa. [http://www.polkcountyiowa.gov/conservation/education/educator-resources/classroom-programs-(kindergarten-8th-grade)/](http://www.polkcountyiowa.gov/conservation/education/educator-resources/classroom-programs-%28kindergarten-8th-grade%29/)Take a field trip sponsored by Polk County Conservation. The field trips are FREE (except for bussing). You can contact Patrice Peterson and learn more about the field experiences they offer at : <http://www.polkcountyiowa.gov/conservation/education/educator-resources/field-trip-opportunities/>Take a field trip to the zoo, or invite a speaker to address the different types of habitats and environments they create to keep their animals happy. <http://www.blankparkzoo.com/index.cfm?nodeID=18090> | organism, terrarium, environment, environmental factor, response,aquatic,  |