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| Step 1  Diversity and Independence of Life | | | |
| Science Standards | | | |
| General Standard | Most | OACS-E  Complexity | Least |
| Grade Level: 9.12  Standard (Subject):  Science  Strand/Domain: Biology  Content Statement #:  BIO.912.6 | BIO.912.7a  Sort organisms according to their classification | BIO.912.7b  Match two organisms in the same classification | BIO.912.7c  Sort plants and animals according to their classification |
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| Social Studies Standards | | | |
| General Standard | Most | Complexity | Least |
| AMH.912.26  The United States improved global communications, international trade, transnational business organizations, overseas competition and the shift from manufacturing to service industries have impacted the American economy. | CWI.912.1a  Select a location around the world and conduct an internet search to learn about news, weather and places of interest in this location | CWL.912.1b  Use the internet to learn about news, weather, entertainment | CWL.912.1c  Participate in an internet search to get new information |
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| Step 2 | | | |
| Activity Ideas | | Matching SCI/SS Standards  (from above) | |
| Pre-assessment (cards) | | BIO.912.7b, c | |
| Intro video | | BIO.912.7b, c | |
| Build animal/plant classification charts | | BIO.912.7a,b, c, R.912.1,2a | |
| Cloze activity vertebrates/invertebrates | | BIO.912.7a,b, c; R.912.1,2a | |
| True/False activity: Animal classification  Compare contrast activity: Venn Diagrams  Pop-up book: Compare/Contrast Paragraph  Circle Math activity: (Venn Diagram) student identifies diameter and radius with foam circles  Assessment: (with calculator) diameters/radii | | BIO.912.7a,b, c; R.912.1,2a  CLW.912.1c  W.912.4,6  M.912.1  G.C.912.1a | |

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| Step 3 | | | |
| Language Arts Standards | | | |
| General Standard | Most | Complexity | Least |
| W.912.4,6  4: Produce clear and coherent writing in which the development, organization and style are appropriate to task, purpose and audience.  6. Use technology, including the internet, to produce, publish and update individual or shared writing products. | W.912.9a  Gather information on a specific topic and use information to support selection. | W.912.9b  Gather information on a specific topic and use information to support selection from age-appropriate informational material | W.912.9c  Select information on a specific topic from (adapted) grade-level age appropriate informational material. |
| R.912.1  Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text | R.912.1,2a  Cite details from text to support answers to literal or inferential text | R.912.1,2b  Cite details from text to support the answers to literal questions | R.912.1,2c  Identify details tat are stated in a text |
| Math Standards | | | |
| General Standard | Most | Complexity | Least |
| M.912.1  Understand and apply theorems about circles  1. Prove that all circles are similar  2. Identify and describe relationships among inscribed angles, radii and chords | G.C.912.1a  Use the radius of a circle to determine the diameter and vice versa | G.C.912.1b  Identify parts of a circle (radius, diameter, circumference, chord, arc) | G.C.912.1c  Identify three-dimensional shapes with a circle as a cross-section and/or identify shapes or objects that have a circular base. |
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| Step 4 | | |
| Activity Timeline  Session 1: Pre-assessment quiz: hands on cards matching/identifying classification of plants and animals; Show 14-minute video: “How Living Things are Classified”  Session 2: Show” Vertebrates and Invertebrates” Build vertebrates and invertebrates classification charts (color code boxes and label cards) add labels/key pictures; fill in cloze activities on plants and animal classification from chart  Session 3: Do internet search on vertebrates and invertebrates. Organize compare/contrast information on Venn diagram; transfer information to Framed Paragraph graphic organizer  Session 4: Build pop-up book with invertebrate choice and vertebrate choice and final copy of compare contrast paragraph with self-created rubrics assessment.  Session 6: Review Venn Diagram as a “circle-circle” organizer. Using foam circles have student measure the width of the circle (diameter) after folding it in half to get line and tracing it. Then record number on the circle. Have student fold the circle the other way and retrace original line using a different color to new fold line intersection then re-measure.  Show relationship of diameter and radius. Use “Radius and Diameter” worksheet and allow use of calculator.  Session 7: Show video: “Classification of Vascular, Nonvascular, Monocot & Dicot Plants” education-portal.com; Run off power point hard copy of “Classifying Plants” (youtube.com) and go over as review. Build plant classification chart using color coded boxes with color coded cards. Quick assessment matching cards to classification category.  Session 9: Quick assessment matching cards to classification category. | Website Resources  You Tube: “How Living Things are Classified”-Discovery 14 minutes  “Invertebrates” YouTube.com  “Vertebrates and Invertebrates” YouTube.com  [www.enchantedlearning.com](http://www.enchantedlearning.com) for picture prompts  [www.science-teachers.com](http://www.science-teachers.com) for plant classification cloze  www.davidlnelson.md/Cazadero/FiveVertebrates.htm  classification of living things chart  [www.usefulcharts.com/science/classification-of-animals.htm](http://www.usefulcharts.com/science/classification-of-animals.htm)  BIOLOGY4KIDS.COM  “Classifying Plants” [www.youtube.com](http://www.youtube.com) by Mr. Sanselmi  “Classification of Vascular, Non-Vascular, Monocot & Dicot Plants” education-portal.com  [www.superteacherworksheets.com](http://www.superteacherworksheets.com) (radius and diameter) |