

Jefferson City Public Schools–Curriculum

SUBJECT: Elementary

COURSE: EER

STRAND: Insect Investigations

Objectives	Assessment/Evaluation	Instructional Activities
<p>(A) Know the parts of an insect and understand the important roles insects fulfill</p> <p>Performance: 1.2, 1.5, 1.6, 1.8, 1.10 Knowledge: (SC) 3,4,8 SCGLE: SC.3.1.Aa,B (Gr. 6); SC4.1.Aab (Gr. 4); SC4.1.Aa, Ba-c (Gr. 6) NETS: (3-5) 8 DOK: 1,2</p>	<ul style="list-style-type: none"> • Bill Nye Video Worksheet • KWL Foldable 	<ul style="list-style-type: none"> • Bill Nye insect video • KWL
<p>(B) Become familiar with and be able to use dichotomous keys to identify insects</p> <p>Performance: 1.6, 1.7, 1.8, 2.4, 3.1, 3.5, 3.6 Knowledge: (SC) 3 CAGLE: R.3.C (Gr. 6) SCGLE: SC3.1.E; SC3.2.Ca (All Gr. 5) NETS: (3-5) 4 DOK: 3,4</p>	<p>Dichotomous Key quiz</p>	<ul style="list-style-type: none"> • Reading assignment: Insect Classification • Norn Dichotomous Key activity • Silly Science Group Dichotomous Key activity
<p>(C) Research and create an insect fact booklet</p> <p>Performance: 1.1, 1.2, 1.6, 1.7, 1.8, 2.1-2.4, 3.1, 3.5, 3.6 Knowledge: (CA) 1-4 (SC) 3,4,8 CAGLE: R.3.C; W.2.B; W.3.D; IL.1.B-D (All Gr. 6) W.3.B; IL.1.A (All Gr. 5) SCGLE: SC3.1.E; SC3.2.Ca (All Gr. 5) NETS: (3-5) 1 DOK: 5,10</p>	<ul style="list-style-type: none"> • Fact cards with bibliographic information • Each fact book will include: <ul style="list-style-type: none"> • an introduction • 2 beneficial insects • 2 harmful insects • 2 invasive insects • 3 student choice 	<ul style="list-style-type: none"> • Research using the Internet and books • Model how to create fact cards and properly cite bibliographic information

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<p>(D) Identify defense mechanisms and explain their importance for insect survival</p> <p>Performance: 1.2, 1.3, 1.6, 1.8, 1.10, 3.1, 3.3, 3.6, 4.1 Knowledge: (MA) 1,3,4 (SC) 4 MAGLE: AR,1,C; DP.1.A (All Gr. 6) SCGLE: SC3.1.Aa; SC4.4.Ca,b (All Gr. 6) NETS: (3-5) 4 DOK: 2,3,4</p>	<ul style="list-style-type: none"> • Create a graph of the data from the Birds and Caterpillars activity • Write a conclusion explaining the importance of defense mechanisms 	<ul style="list-style-type: none"> • Birds and Caterpillars science activity • Collect data
<p>(E) Distinguish between biological controls and pesticides</p> <p>Performance: 1.5, 1.6, 1.7, 1.10, 2.2, 2.4, 3.1, 3.2, 3.4, 3.5, 3.6 Knowledge: (CA) 1,4 (SC) 3,4 CAGLE: R.3.C; W.2.B (All Gr. 6) SCGLE: SC3.1.Aa; SC4.1.Ba-c; SC4.1.Da-c; SC4.3.Ca,b (All Gr. 6); SC3.2.G (Gr. 8) NETS: (3-5) 8 DOK: 1-3</p>	<ul style="list-style-type: none"> • Teacher observation • Quiz over <i>Pathogens, Parasites and Predators</i> 	<ul style="list-style-type: none"> • Read: Integrated Pest Management • Friend or Foe activity • Biological Control activity • PowerPoint: <i>Pathogen, Parasite or Predator</i>
<p>(F) Explain why pesticide pollution is a global problem</p> <p>Performance: 1.8, 1.10, 3.1, 3.5 Knowledge: (MA) 3 (SC) 3,4,8 SCGLE: SC3.1.Aa; SC4.1.Ba-c; SC4.Da-c (All Gr. 6); SC3.2 (Gr. 8) NETS: (3-5) 8 DOK: 2-4</p>	<ul style="list-style-type: none"> • Graph data • Classroom discussion • Teacher observation 	<ul style="list-style-type: none"> • Chain Reaction activity • Collect data
<p>(G) Identify the parts of a bee and a flower</p> <p>Explain the adaptive features of plants and organisms</p> <p>Determine the importance of pollination on the world food supply</p> <p>Performance: 1.5, 1.6, 1.7, 1.8, 1.10, 2.2, 2.4, 3.1, 3.5, 3.6, 3.8 Knowledge: (CA) 1,3,4 (SC) 3,4,8 CAGLE: R.3.C; W.2.B (All Gr. 6) SCGLE: SC3.1.Aa (Gr. 6); SC3.3.Ad (Gr.8) NETS: N/A DOK: 1-3</p>	<ul style="list-style-type: none"> • Identify bee and flower anatomy • Teacher observation/class discussion • Bee Free Bar-B-Que • Design Your Own Flower activity 	<ul style="list-style-type: none"> • Review bee and flower anatomy • How Does Pollination Work activity • Activity 2 – Understanding how pollination affects the world’s food supply • Activity 3 – Adaptive structures

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<p>(H) Write a newspaper to explain the importance of honeybees and other beneficial insects</p> <p>Performance: 1.1, 1.2, 1.6, 1.10, 2.1, 2.2 Knowledge: (CA) 1,3,4 (SC) 3,4,8 CAGLE: W.2.B,E (Gr. 6) SCGLE: SC3.1.Aa (Gr. 6); SC3.3.Ad (Gr. 8) NETS: (3-5) 5 DOK: 2-4</p>	<p>Students will work in groups to create the Honeybee Newspaper</p>	<ul style="list-style-type: none"> • Read: <i>Vanishing Bees</i> article • Research using books, magazines and the Internet
<p>(I) Create a comic strip to explain environmental concerns that insects may have about the world</p> <p>Performance: 1.2, 1.6, 2.1, 2.2 Knowledge: (CA) 1,4 (SC) 3,4,8 CAGLE: W.2.B (Gr. 6) SCGLE: SC3.1.Aa; SC4.1.Ba-c; SC4.1.Da-c (All Gr. 6); SC4.1.Aa,b (Gr. 4) NETS: N/A DOK: 2-4</p>	<p>Create an insect comic strip that explains a concern insects might have about the environment</p>	<ul style="list-style-type: none"> • Insect Questivity #1 • Class discussion
<p>(J) Dissect and learn about the anatomy of a grasshopper</p> <p>Performance: 1.2, 1.3 Knowledge: (CA) 1 (SC) 3,7 SCGLE: SC3.1.Aa (Gr. 6); SC3.2.Cc (Gr. 8) NETS: (3-5) 7 DOK: 2,3</p>	<p>Label the parts of a grasshopper</p>	<ul style="list-style-type: none"> • Internet • Diagrams and information about grasshoppers