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Title: INSECTS  
Subject: Science  
Grade level: grades 1-2

Description: The children will study insects to learn their characteristics and their life cycles. They will also learn to identify the local insects found around school and home.

Faith Integration: “We are to see and enjoy the works of God in the beauties of nature, and in them read the love of God to man, which should call forth from our hearts a response of gratitude and love to our Creator.” Review and Herald, Oct. 11, 1887

“The ants teach lessons of patient industry, of perseverance in surmounting obstacles, of providence for the future.” Education p. 117

As the marvels of the insect colony and the mysteries which still remain are explored, one is overwhelmed by the wisdom of the Creator who planned life patterns for each of the thousands of different kinds of little creatures.

Proverbs 6:6-8 “Go to the ant you sluggard; consider its way and be wise....”

Curriculum Benchmarks:

Students will be able to draw and label the parts of an insect.

Students will be able to name a social insect and describe how it lives.

Students will be able to list insects that are helpful to humans.

Students will practice responsible use of technology systems, information, and software. NETS 2b

Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity. NETS 2c

Students use technology tools to enhance learning, and promote creativity. NETS3a

### Materials/Hardware/Software:

Rockets and Raisins, Science/Health Series A; Pacific Press Publishing  
1986 pages 151-163  
KidPix Deluxe 3 CD Rom, Broderbund, The Learning Company, 2000  
Encarta CD Rom or Worldbook Encyclopedia  
Library or reference book of insects  
Magnifying glass  
Ruler

### Teacher Preparation:

Secure materials listed in preceding section and familiarize self with text book pages.

Bookmark following websites:

[www.insecta-inspecta.com](http://www.insecta-inspecta.com) (info on butterflies, ants, crickets)

[www.ant.edb.miyakyo-u.ac.jp](http://www.ant.edb.miyakyo-u.ac.jp)

[www.monarchwatch.org](http://www.monarchwatch.org)

[www.butterflywebsite.com](http://www.butterflywebsite.com)

[www.nature.ca/notebooks](http://www.nature.ca/notebooks) (butterflies, ants, crickets, etc.)

[www.discovery.com](http://www.discovery.com)

[www.enchantedlearning.com](http://www.enchantedlearning.com)

[www.gov.ab.ca](http://www.gov.ab.ca)

Purchase or make an ant farm

### Student Preparation:

Student needs to know how to use Kid Pix Deluxe 3: how to save pictures, how to retrieve pictures, how to transfer pictures to a slide show, how to import pictures off the web to Kid Pix.

Student needs to know how to use drawing and painting tools, and text in Kid Pix.

Student needs to know how to use Encarta, or Worldbook Encyclopedia.

Student needs to know how to measure to nearest quarter inch or centimeter with ruler.

### Activities/Procedures:

Working in pairs, students will go outside, around the school area and catch insects. Bringing them inside, they will identify the insect using a library or reference book and then measure the insect and record their findings. (Or purchase crickets at pet store for students to measure.)

Students look on underside of leaves on trees for insect eggs. Have them place the eggs in a jar with leaves, soil, etc. keeping the environment as close as possible to that in which the eggs were found. Then cover the jar with cloth. Have children watch the eggs and keep record of how long it takes them to hatch.

Working in pairs, students draw and label the parts of an insect using Kid Pix.

Working with partner, students read information from text book or library book and write one sentence about each stage of development. (egg, larva, pupa, adult). Take turns writing and use own words. After someone edits their work, students use Kid Pix and create a rectangle, dividing it in 4 boxes. In each box, students write the name of a stage in the top left corner. They then copy the sentences they wrote previously (one in each box) and draw a picture of each stage of development. They must take turns drawing; add both their names and print.

Using the classroom ant colony, have the students draw pictures of an ant home, showing tunnels and rooms, designating at which stage of their development the insects occupy the rooms. (May use Kid Pix)

Working in pairs, students make a slide show of something they have learned about insects. They may include appropriate scriptures.

Assessment/Evaluation: Rubric attached

Follow-up Activities:

Guess Who Review: I'm thinking of an insect. The others must ask questions such as, "Does it have wings?" "Does it make paper for its nest?" The student who is "it" must answer each question with an answer that names the insect which he thinks the questioner has in mind such as, "No, it is not a bee." The one who asks the right question is "it" for the next game.



Create Rubrics for your Project-Based-Learning Activities

## Lab Report: **Insect Project**

Teacher name: Nancy O'Brien

Student Name \_\_\_\_\_

CATEGORY	Master Inspector	Chief Inspector	Inspector	Bug catcher
<b>Components of the report</b>	All required items are present and additional items that add to the report.	All required items are present.	One required item is missing.	Several required items are missing.
<b>Drawings/Diagrams</b>	Clear, accurate diagrams are included and make the report easier to understand. Drawings are labeled neatly and correctly.	Diagrams are included and are labeled neatly and accurately.	Diagrams are included and are labeled.	Needed diagrams are missing OR are missing important labels.
<b>Spelling, Punctuation and Grammar</b>	One or fewer errors in spelling, punctuation and grammar in the report.	Two or three errors in spelling, punctuation and grammar in the report.	Four errors in spelling, punctuation and grammar in the report.	More than 4 errors in spelling, punctuation and grammar in the report.
<b>Participation</b>	Used time well in classroom and focused attention on	Used time pretty well. Stayed focused on the	Did the project but did not appear very interested.	Did not participate well or do his/her share of the

	the project.	project most of the time.	Focus was lost on several occasions.	project.
<b>Scientific Concepts</b>	Report illustrates an accurate and thorough understanding of insects and their life cycles.	Report illustrates an accurate understanding of insects and their life cycles.	Report illustrates a limited understanding of insects and their life cycles.	Report illustrates poor understanding of insects and their life cycles.