

ACTS, GRADES 3&4
Science Explore Schedule Insect
Unit

Reading material:

Abeka grade 4, *Understanding God's World*
Handouts & websites

Parents: Reminder-students will need the current edition of the Abeka grade 4 science text

9/13

Insect Unit begins today! Miniature Marvels of Creation, Ten Million Designs, Special characteristics, Exoskeleton, 3 body parts, Breathing tubes

Prior to class:

Read: Understanding God's World UGW pages 15-17

Complete: Comprehension check 2.1. Please write out answers on a separate piece of paper to be checked during class.

Bring to class: Students are encouraged to bring any insect specimens to share in class that they find except for stinging insects. They may be dead or alive!

Website suggestions:

Attenborough: Life in the undergrowth—fascinating photography about galls

<http://www.youtube.com/watch?v=oE7sGyCBWr8&feature=related>

15 amazing facts about insects (awesome!)

<https://www.youtube.com/watch?v=B6Eg3JBTgtQ>

Basic insect identification –very good, but uses more advanced vocabulary that parents may need to explain to the young student. <https://www.youtube.com/watch?v=2qsxmfTQszA>

Take home item: Students will receive edible insect treats to enjoy at home.

Class time:

Insect comparison

Locate the three body parts of a variety of insects, characteristics of insects

Experience using magnifying glasses

9/20

Butterflies and moths and their life cycles of insects, antennae, sensilla, eyes, mouthparts, silkworm moths

Prior to class:

Read: UGW p18-26

Complete: UGW Comprehension check 2.3 & 2.4

(Over)

Website suggestions:

<https://www.youtube.com/watch?v=AZk6nZGH9Xo>

“The Beauty and Design of butterflies” Beautiful and informative filling. A GREAT FIND!! Don’t miss it!! Another great suggestion is:

<http://www.youtube.com/watch?v=Vx4i9Rn4moA&NR=1&feature=endscreen> this has cool information on butterfly eggs and explains how butterflies taste with their feet and forelegs and smell with their antennae. It is amazing how they figure out which plant to lay their eggs on.

Classtime: Butterflies—Students will receive two painted lady caterpillars to watch go through metamorphosis and turn into a butterfly. Please note that two caterpillars will be given to each family.

9/27

Our focus in class today is the benefit of honeybees. Ken & Karen Hall, who have had their own bees for years and have taught thousands of students on the benefit of bees and how to set up beekeeping will be with us today. They will bring their demonstration hive to show the students how to identify the queen bee. This will be a very exciting class with many hands-on items for the students to learn about.

Designed for motion, six jointed legs, wings, migration, crickets & grasshoppers, incomplete metamorphosis, beneficial and harmful insects

Prior to class:

Read: UGW p 26-31, 41-42

Complete: Comprehension check 2.6 p31 & 2.10 p43

Optional:

Website suggestions: Complete vs incomplete metamorphosis

<http://www.youtube.com/watch?v=nuPCu8IHC8I> Honeybees, Natural History 1

<http://www.youtube.com/watch?v=x7cX2cjFunw&feature=relmfu> Honeybees, Natural History 2

<http://www.youtube.com/watch?v=VsCmSWoF8PY&feature=related>

Classtime: Harmful and beneficial insects with a focus on the amazing job of the honeybee

10/4

How insects defend themselves, valiant fighters, chemical warfare, scare tactics, insect disguises, how insects communicate, sight, smell, touch, dancing, sound, where insects live, insect eggs, ants. Life cycle of the darkling beetle, hissing cockroach

Prior to class:

Read: UGW p31-40

Complete: Comprehension check 2.7, 2.8

Illustrate the following verse and bring to class to share today.

Proverbs 4:24-25 “Four things on earth are small, yet they are extremely wise: 25 Ants are creatures of little strength, yet they store up their food in the summer.

Website suggestion: Ants create a lifeboat in the Amazon jungle—really cool!!

<http://www.youtube.com/watch?v=A042J0IDQK4>

<http://www.youtube.com/watch?v=R11RQ4BpTbE&feature=related>

The above website is a short video of ants working together to carry a dead beetle—neat.

<http://www.youtube.com/watch?feature=endscreen&v=5LLEpKi3wcA&NR=1>

The above website is a short video of ants working together to carry a centipede. Amazing!

Class time: Students will learn about the Madagascar hissing cockroach and handle them today in class. Also, students will learn about metamorphosis of the darkling beetle.

10/11

Macroinvertebrate studies to determine the health of streams

Prior to class:

Read: Handout on water bugs

Complete: Question sheet on water bugs

Website suggestions:

water bug identification

https://digitalcommons.usu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=2161&context=extension_curall

<https://extension.usu.edu/waterquality/files-ou/Publications/AllBugs-2sides.pdf>

<https://extension.usu.edu/waterquality/files-ou/Publications/AllBugs.pdf>

Class time:

Macroinvertebrate samples—identification--How can we tell stream health by the number and types of macroinvertebrates found? Which macroinvertebrates are insects?