

This month we will study the third standard of Terra Libre, Seek Knowledge, as we learn about Jean-Henri Fabre, a nineteenth-century French naturalist. Jean-Henri loved the natural world, especially insects, and he wrote many engaging books about his observations.

Preparedness connection: It seems that sometimes God prepares us for our life's work by imbuing our mind with a passion for a certain topic; an inner impetus that compels us to learn more about what we love. Jean-Henri found that this was true in his life. He stated, "From my earliest childhood I have felt drawn towards the things of Nature. Without masters, without guides, often without books, I have gone forward with one aim always before me: to add a few pages to the history of insects." It was this youthful goal that prepared him to later became a naturalist and a writer and to earn him the title of the "insects' Homer."

Suggested Books

Early Readers

Small Wonders: Jean-Henri Fabre & his world of insects by Matt Clark Smith. This engaging picture book starts at the end of Jean-Henri's life and then jumps backwards to his youth and then forward to his work as a naturalist. A very enjoyable work, however the final page is written so that the reader could be deceived into believing that Jean-Henri and Charles Darwin had a similar belief in evolutionary theory.

The Boy Who Loved Bugs: the story of Jean-Henri Fabre by Molly Sanchez. With vibrant illustrations, this books tells the inspiring story of Jean-Henri, one of the greatest naturalists in history. The final pages of this picture book clarify that, while Jean-Henri was friends with scientists like Charles Darwin, he did not believe in evolution, but instead believed that God had organized this world of wonders. Available from The Good and the Beautiful Library.

Intermediate to Advanced Readers

Insect Adventures by Jean-Henri Fabre. Written by Jean-Henri to interest children in the fascinating world of insects, this book details many of his observations on insect life. Interestingly, the chapter about Jean-Henri's childhood starts on Chapter XVII, so mentors might encourage the knights to read this chapter first and then read

from Chapter I. Note: while engaging and beautifully written, there are sections about predatory insects (wasps for instance) that might be slightly upsetting for a sensitive child.

Fabre's Book of Insects by Jean-Henri Fabre, is a slightly more complex version of Insect Adventures, however it still retains the charm that characterizes all of Jean-Henri's writings. Physical copies of the book are available for purchase, or it can be found online at The Public Domain Review: https://publicdomainreview.org/collection/fabres-book-of-insects-1921 This scanned copy includes a few beautifully painted illustrations by E. J. Detmold.

Suggested Activities

- The Harmas, Jean-Henri Fabre's house and garden, is now a museum. Visit the website harmasjeanhenrifabre.fr/en to see photos of Jean-Henri's garden, as well photos of a few of his watercolor paintings of mushrooms.
- > Jean-Henri had a large herbarium (collection of pressed plants), which he started collecting when he was 18 years old. In 1997 it was estimated that the collection had 20,000 specimens!

As an activity have the knights press flowers, plants, and/or leaves. <u>HomeScience-Tools.com</u> has plant presses for sale or, for a more economical option, use heavy books (tissue paper on either side of the plant will protect the pages). If this activity is being done in winter then flowers and plants could be purchased from a greenhouse. Thin stemmed or fragile flowers are easier to press than thicker specimens.

Save the pressed flowers and use them for making cards during the study of the standard Respect Women: <u>How to Press Flowers and Make Handmade Greeting Cards</u>

For a complete curriculum about insects, purchase the Arthropods: K - 8 Science Unit Study from The Good and the Beautiful Library. This study has multiple activity ideas about a variety of arthropods, as well as a short section on Jean-Henri Fabre in Lesson 8.

If your co-op or group has a Crowned with Virtue Club and plans to study the naturalist Maria Merian, then both clubs could share this curriculum.

Ask each knight to do a presentation on an insect, arachnid, or arthropod. Suggestions might be: dragonflies, stink bugs, silkworms, termites (huge mounds), goliath beetle (heaviest insect), stick insects (longest), Queen Alexandra birdwing (largest butterfly), peacock spider (beautiful), St. Andrews's Cross spider (web decorations), or any other interesting, but not too gory, insect.

A quick Google search will give you many options. To prevent duplicate presentations, the mentor might offer a list of options to the knights and then cross off every insect that is chosen.

- Dean-Henri marveled at the complexity of the webs of the garden spiders. Have the knights make two or three large spiderwebs out of rope and twine or yarn: How to Make a Spider Web Obstacle Course. (This webpage is really just about making a spider web the "obstacle course" activity is on another part of the webpage.)
- The last chapter of the book *Insect Adventures* is titled "The geometry of a spider's web." This chapter has a somewhat complex explanation of the logarithmic spiral used by spiders in web construction and the mollusk, nautilus and shellfish in the construction of their shells. This design evident in creation caused Jean-Henri to remark, "Geometry, that is to say, the science of harmony in space, rules over everything. And this universal geometry tells us of a Universal Geometrician, whose divine compass has measured all things."

As an activity, teach the knights about the geometric patterns in nature. This activity by Mensa for Kids, <u>Fabulous Fibonacci</u>, has a lesson plan for younger children.

Hero Visits and Field Trips

- Arrange a tour of an herbarium (contact your local university), botanical garden, butterfly house, or the insect display at a zoo.
- Ask a biologist or entomologist to visit your knights. (To find a speaker, contact the biology department of your local college or university.) Ask the scientist to discuss what sparked his / her interest in natural science, also ask him / her to talk about beneficial insects, or insects that are particularly strange or fascinating.

"After eighty-seven years of observation and reflection, I cannot so much say that I believe in God as that I see Him. Without Him, I understand nothing: without Him all is darkness. My studies have both preserved and strengthened this faith in me, and have even increased it."

~ Jean-Henri Fabre

