

BONES & STONES

Table of Contents

—Introduction (3 days)—

Purpose	1
Overview	3
Setup Directions	6
Resources	10
Unit Time Chart.....	16
Daily Directions.....	17
STUDENT GUIDE	21
CLASS ROSTER.....	25
SURVIVAL STONES TALLY	26
TOTEM BADGE.....	27
SURVIVAL STONE BAG.....	28
EARLY HUMANKIND.....	29

—Passage I: Seminar (3 days)—

Intro, Flourishes, and Setup.....	1:1
Daily Directions.....	1:3
4.5 BILLION YEARS OF HISTORY	1:6
HOMINID FAMILY TAXONOMY	1:7
THE HUMAN JOURNEY FROM “LUCY”.....	1:8
WHAT MAKES HUMAN BEINGS HUMAN?.....	1:9
THE STONE AGES.....	1:10
GUIDELINES FOR PRESENTATIONS	1:11
SEMINAR 1	1:13
SEMINAR 2	1:15
SEMINAR 3	1:19
SEMINAR 4	1:21
SEMINAR 5	1:23
SEMINAR 6	1:25
SEMINAR 7	1:28
SEMINAR NOTE TAKING/NOTE MAKING MODEL	1:31
SEMINAR NOTE TAKING/NOTE MAKING	1:32

—Passage II: Survival (4 days)—

Intro, Flourishes, and Setup.....	2:1
Daily Directions.....	2:3
HUNTING AND GATHERING	2:7
ADOPTING A STONE AGE DIET	2:11
MY STONE AGE DIET	2:13
MY STONE AGE DIET RECORD	2:14
HUNTING AND GATHERING GAME RULES.....	2:16
HUNTING GAME & FATE CARDS.....	2:18
GATHERING GAME & FATE CARDS	2:24
FIRE DEMONSTRATION	2:30
SPEAR DEMONSTRATION	2:33
PREHISTORIC TOOLMAKING	2:36
PREHISTORIC TOOLMAKING ASSIGNMENT	2:38
CONFERENCE EXHIBIT/EVALUATION CARD	2:20

—Passage III: Language (5 days)—

Intro, Flourishes, and Setup.....	3:1
Daily Directions.....	3:3
SLBS FT MGOTK	3:8
ORAL LANGUAGE DEVELOPMENT	3:9
GUIDELINES FOR LANGUAGE SCENARIOS.....	3:12
LANGUAGE SCENARIO PLAN	3:13
LANGUAGE SCENARIOS.....	3:14
SCENARIO INTERPRETATION FORM	3:16
THE GREAT GOO-BUR.....	3:17
CAVE COURT CASES.....	3:18

—Passage IIII: Cave Art (2 to 3 days)—

Intro, Flourishes, and Setup.....	4:1
Daily Directions.....	4:4
CAVE ART	4:10
CAVE PAINTING SCENES.....	4:13
CAVE PAINTING INSTRUCTIONS	4:16
CAVE PAINTING TEACHER EVALUATION.....	4:17
CAVE PAINTING SELF EVALUATION	4:19
A VISIT WITH A STONE AGE FAMILY.....	4:20

—Passage IIII: Megaliths (3 days)—

Intro, Flourishes, and Setup.....	5:1
Daily Directions.....	5:3
MYSTERIOUS STONES OF PREHISTORY	5:8
MEGALITHS SIGN-UP ROSTER.....	5:13
GUIDELINES FOR “FOUND” POEMS	5:14
“FOUND” POEM TRILITHON	5:15
ENGINEER’S MANUAL	5:16
GUIDELINES FOR CONSTRUCTION CREWS.....	5:18
MEGALITHS CONSTRUCTION DUTIES	5:19
ENGINEER’S BLUEPRINTS	5:20

—Passage IIII I: Conference (4 to 5 days)—

Intro, Flourishes, and Setup.....	6:1
Daily Directions.....	6:3
Comprehensive Final Answer Key	6:8
COMP CARDS	6:9
COMPREHENSIVE FINAL.....	6:20
CANDIDATE SUMMARY.....	6:25
GRAYSTONE UNIVERSITY DIPLOMA	6:26

In this simulation of early humans and the Stone Age, your students experience in a participatory manner what life was like thousands of years ago—before any written word recorded the challenges our ancestors faced in struggling to survive each day. As with all Interact classroom materials, your students become involved in their own education in a variety of exciting activities and tasks guaranteed to increase their understanding of prehistoric life. Specifically, they learn that despite the difficulty of survival, most early humans met these incredible challenges and produced cave art, stone monuments, and advances in oral communication and social patterns which we recognize today.

Why simulation activities on prehistoric human beings?

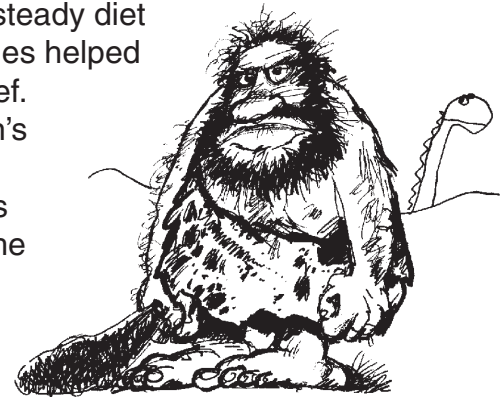
Most teachers likely launch world history, western civilization, or humanities courses with a unit on how early humans developed and began sharing this planet. In this BONES & STONES booklet program are interactive strategies and materials dealing with this long journey of humans to a point where they settled down to become farmers along river valleys. At the same time, these early people originated written language to record their business transactions, literary and artistic achievements, and their feelings.

We hope school districts and state-wide curriculum committees conclude that a world history course should begin before Ancient Egypt became unified and the pyramids were constructed, or before flood waters of the Tigris and Euphrates Rivers afforded Mesopotamians the opportunity to produce our planet's first civilization. In fact, archeologists have concluded that the human odyssey has origins far back, even perhaps several thousand millennia back. Thus, a solid, venturesome simulation of this important, if not an entirely neglected subject, seems appropriate for your students. In conclusion, let us summarize:

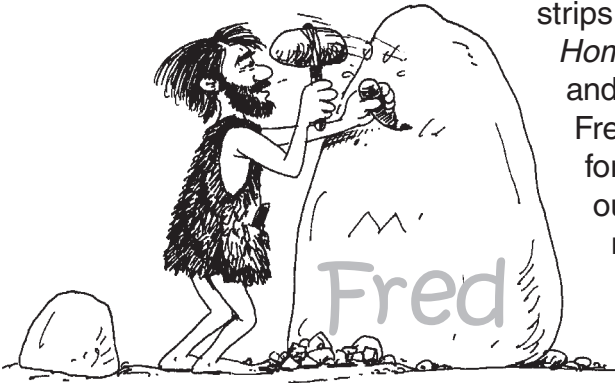
“
... lived as
contemporaries
struggling for
survival
with dinosaurs ...

Four reasons why we wrote BONES & STONES

1. Teachers at many levels are concerned when they realize that so many young people believe that prehistoric people—“cavemen”—lived as contemporaries struggling for survival with dinosaurs. The origins of this universal myth are unclear; perhaps a steady diet of Hollywood Stone Age movies helped perpetuate this ludicrous belief. Participation in this simulation's activities will help clarify the separate and distinct histories of the age of dinosaurs and the much shorter but thankfully continuous journey of early human beings.



2. In a similar fashion, BONES & STONES can help explode the myth that prehistoric people, especially men, resembled what can only be described as long haired, ugly NFL linebackers who are stooped-over, barrel-chested, grunting brutes as portrayed in comic strips for decades. The generic prototype is, of course, *Homo neanderthalensis*. Though not up to the brilliance and adaptive ability of our most popular caveman model—Fred Flintstone—Neanderthals deserve more credit for their abilities and a fair shake from the public and our students. Bedrock's most prominent citizen aside, more appropriate models are Cro-Magnon hominids. Stated simply and directly—*young Americans need to vicariously experience more accurate portrayals of early human beings' lives.*



3. Our modern lives are not easy, stressless, or necessarily safe. But compared to our prehistoric ancestors, we live much less perilous lives. Think about their lives from their perspective. If you were a Stone Age hunter during the periods of glaciation, you must make a kill—today. You carefully follow, stalk, and depend on an accurate spear toss to obtain fresh meat. Such a kill must happen, or your band will be reduced to eating the few and monotonous tubers and seeds that the women have found and gathered. Nearby, large predators hover at night near your cave entrance. During the day, you worry about freezing temperatures and the snow which often covers any edible leaves and plants. Talk about daily stress! We modern men and women can appreciate our successes surviving modern life's travails, but we teachers must realize and help our students appreciate and pay tribute to the accomplishments of our ancestors. Their courage and resourcefulness lead them to overcome great dangers and challenges while living long enough to have children to continue the human race of which we are a part.

“

... we must realize and help our students appreciate and pay tribute ...

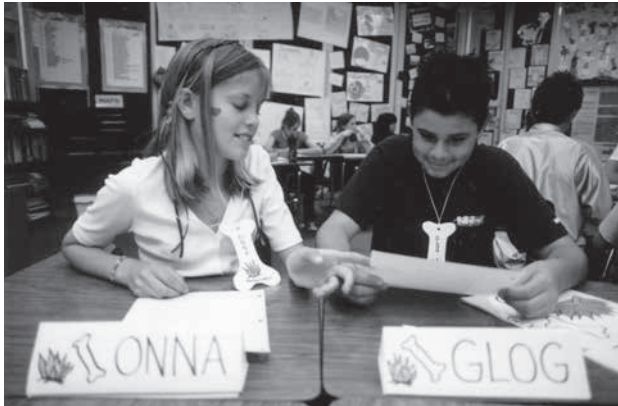
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4. Survival acknowledged, the most important reason to study prehistoric people and the Stone Age is to learn what they left behind for us to glimpse: the roots of our human existence. Certainly early human skeletal remains have excited and teased our scientists to speculate about them and their existence. More important are the artifacts we have unearthed. With all the difficulties early humans faced, we marvel that our ancestors found the energy and inclination to advance the journey by discovering how to talk to one another, by making cave wall paintings, and by constructing monuments like Stonehenge, which, it must be noted, most amazes the authors of BONES & STONES. We believe your students will come away from this unit with the same awe and appreciation we feel when we contemplate such small and large monuments from our past.



Ator is joyous upon selecting Homo erectus as his group's Seminar topic in Passage I.

*Seminarians Onna and Glog share
an intellectual discovery as they read about
Homo habilis, preparing for their presentation.*



For four to five weeks (or shorter if you choose to cut some of the simulation's passages) your classroom will reflect Stone Age life. As Stone Agers your students journey through several passages, or phases, successfully earning Survival Stones for completing tasks and activities (e.g., hunting, painting, and constructing a Stonehenge replica). Before the first passage, students read their STUDENT GUIDE and get acquainted with the responsibilities they will have to assume in BONES & STONES. Here are brief descriptions of the six passages they may work through. (Their eventual experiences depend upon the amount of time you wish to devote to the unit and which passages you choose to implement.)

“
... chosen
appropriate
prehistoric
names, badges,
totems
(band logos),
banners, bags,
greeting
grunts, and
Survival Stones

...

”

Introduction

This pre-passage begins the simulation with an interesting motivator. First, students are assigned to join bands (or groups) with their chosen appropriate prehistoric names, badges, totems (band logos), banners, bags, greeting grunts, and Survival Stones which will be all explained in details. Next, they read a background essay on EARLY HUMANKIND, a primer for your budding paleoanthropologists preparing for Passage I.

Passage I: Seminar

Your students' journey toward a better understanding of our human ancestors really begins in Passage I. Students participate in a college-type seminar during which the intellect, not hunting and gathering skills, is required to grasp intriguing data. Panels of scholars present findings on the five major hominid types which preceded us on this planet, the theory of evolution, and the science of paleoanthropology. These colorful presentations give students a basic education in their subject and generate enthusiasm taking them back in time to the Stone Age where they learn first hand the challenges met by early humans. The passage ends with an essay chronicling the long journey of humans from the ape-like *Australopithecus* to Cro-Magnon people of 10,000 years B.P. (Before Present).

Passage II: Survival

Living now in bands of four to five cleverly named members (e.g., Rock Band), students enter the Stone Age and learn to survive by: building a fire without matches, appreciating the merits of a Stone Age diet, creating and using a spear and spear-thrower (projects are exhibited and demonstrated later in Passage III: Megaliths). Students also simulate spear tosses during hunting and gathering concentration game to win Survival Stones.

“
... they
invent words
and write
prehistoric
dialogue,
including
grunts, body
language, and
gestures.
”

Passage III: Language

Over the millennia, primitive humans developed an oral language in order to communicate and cooperate in successful hunts as they sat around a cave hearth. Students may view a snippet from a film (e.g., the “Flintstones”) before moving on to a background essay on oral language development. Next, each band receives a SCENARIO CARD, from which they invent words and write prehistoric dialogue, including grunts, body language, and gestures. Last, band members perform their script as others try to interpret this new “language” at the clan gathering.

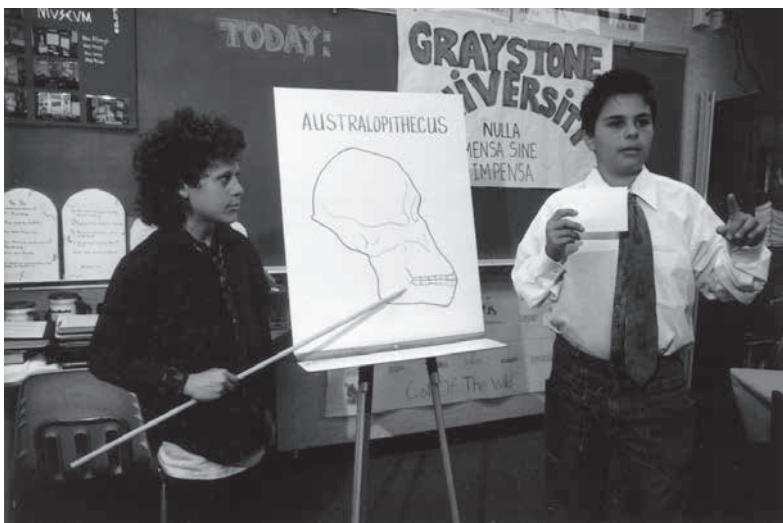
Passage III: Cave Art

Now skilled in hunting, gathering, and survival techniques, students enter dark “caves” (a dimly lit hallway, classroom or multipurpose room) in order to experience cave wall painting depicting scenes similar to those found in impressive abundance at Altamira (Spain) and Lascaux (France). They use natural materials for brushes and paint to portray bellowing bison, trotting horses, auroch or lions. The last activity of this passage is an interview with a Stone Age family—not a cartoon character.



Passage III: Megaliths

Assuming the responsibility of constructing a replica of England’s mysterious circles of megaliths called Stonehenge, student engineers marshal their labor force of Neolithic Britons, then organize and carry out the arduous task of transporting heavy stones (cement bricks) over log-rollers from far-flung quarries. Next, to simulate workers with the incredible weight of the real 40-ton sarsen stones, students, with the use of one hand and the other on their back, raise the stones into place using levers and twine. Instantly students comprehend why cooperation on such tasks was essential for early humans. This feat requires mathematical exactness as specified on the ENGINEERS BLUEPRINTS, which are included.



Taking on the responsibility of their portion of the Earth Band’s presentation, Plop and Pondo excite other seminarians about the 500cc brain capacity of Australopithecus.

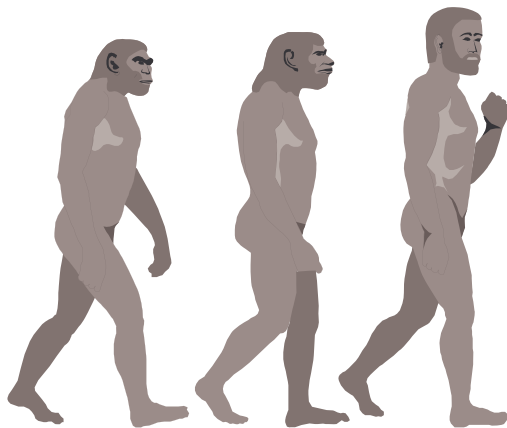


“
... attend and
participate in a
conference of
archeologists
...
”

Stone Age life, culture, and technology. An arduous review session of “orals” leads to a COMPREHENSIVE FINAL exam. Last, each student is awarded a GRAYSTONE UNIVERSITY DIPLOMA with a Doctorate in Prehistory during an impressive graduation ceremony. A few students receive special magna cum laude recognition—those who have shown outstanding work habits and those who have accumulated the most Survival Stones during this exciting journey from primitive *Australopithecus* to the complex *Homo sapiens sapiens*.

Final comment

After completing the various challenges and tasks in BONES & STONES, your students will have experienced the following skills: critical thinking, speaking, listening, band work, and writing—always writing. Furthermore, they will have had opportunities to test some of their physical skills as well as challenge their aesthetic talents. Most important, your students will have “released their creative spirits,” exhibiting that vital human quality that somewhere, somehow, originated with those incredibly durable early human beings we call our ancestors.



One of the two classes
of sixth-graders at
Sowers Middle School
in Huntington Beach (CA)
who “met the rigorous
challenges of
BONES & STONES”
as it was pilot tested during
the 1997-98 school year.

Both authors wish
to acknowledge and thank
them for their cooperation,
enthusiastic participation,
and valuable feedback,
enduring along the way
carpet burns on their knees,
one or two bumps on their heads,
paint on their clothes,
and the blinding light
of flash photography.



MY STONE AGE DIET

Directions:

Before you start this nutritional experiment, be sure to get at least one parent to approve your participation by signing the form below. Maybe your parent will join you, making planning and cooking easier, and you will have a partner in your quest for a healthy diet.

Stone Ager name: _____

Real name: _____

Parent's signature: _____

No one expects you to eat raw mammoth brains, or even thistle, twigs, or your hamster. In fact, many species eaten by early hominids are now extinct. To duplicate the same foods our ancestors ate is almost impossible. Imagine trying to find in the local supermarket such foods as reindeer, fox, caribou, giant sloth, flamingos, bear, catmint, grubs, or quail eggs. Nevertheless, many foods exist that are similar to foods eaten during the Stone Age. If you have a "health" market in your community, try to arrange a visit to buy organic (grown without fertilizer) foods consistent with the approved list below:

Approved "Stone Age" foods to eat

- fish and seafood
- small game (e.g., rabbit, chicken)
- bison (buffalo meat)
- seeds and nuts (raw, without salt)
- lots of fruits (including figs)
- lots of vegetables (including beans)
- lots of water (eight to 10 glasses per day)
- whole grains such as barley, bulgar, oat bran, corn bran, rice, millet, and buckwheat, rye
- tubers (potatoes and sweet potatoes)
- small amounts of cereal grains
- pita bread and whole grain breads
- honey—the **only** sweetener allowed in your Stone Age diet!
- berries
- shoots and roots
- edible leaves and flowers
- lean red meats (sparingly)
- whole wheat bagels and rolls
- rice cakes



Foods to avoid

- all fried foods
- dairy products, including milk
- packaged foods (especially with preservatives)
- candy, cake, donuts, etc.
- other foods with high fat and calorie content
- potato chips, corn chips, crackers, and other snack foods
- all fast foods

Summary statement

Your goal is to eat an abundance of natural, wholesome food with few or no chemical additives. Keep track of what you eat on **MY STONE AGE DIET RECORD**. And why not do one more thing your ancestors did—exercise by walking or running outside each day. The combination of wholesome, low-fat foods and daily vigorous exercise will make a difference in your life!

MY STONE AGE DIET RECORD - 1

Stone Ager name _____

Real name _____

Describe your eating habits and choices of food **BEFORE** beginning the MY STONE AGE DIET experiment:

Describe your eating habits and choices of food **AFTER** beginning the MY STONE AGE DIET experiment:

Day _____

Upon Rising: ...

At Midday: ...

At Evening: ...

"Snacks" throughout the day: ...

Day _____

Upon Rising: ...

At Midday: ...

At Evening: ...

"Snacks" throughout the day: ...