

Teacher's Companion™

for *Perseus*® 2.0

Hephaestus

Wendy E. Owens



AbleMedia



Teacher's Companion™

for *Perseus*® 2.0

Hephaestus

Wendy E. Owens

Copyright © 1998 by AbleMedia
50 Clark Street, Medford, MA 02155-4474
All Rights Reserved

No part of this assignment may be reproduced by any mechanical, photographic, or electronic process, or in the form of a phonographic recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use, without the written permission from the publisher.

Printed in the United States of America.

Perseus is a registered trademark of the President and Fellow of Harvard College and the Corporation for Public Broadcasting.

All copyrights and trademarks are the property of their respective owners.



Strategies for Using *Perseus* in the Classroom

I. How You Make a Good Start

Students' first impression of a software program has a lasting effect on their willingness to use the program. *Perseus* is no exception. While it is relatively user friendly, the volumes of information it contains can be overwhelming. To preclude the huge *Perseus* database from being intimidating, an instructor must teach students how to use the *Perseus* program. Students who are computer literate might easily grasp the mechanics of using the program, but they are unlikely to learn how to *think* with *Perseus* without careful instruction and practice. On their own, students are likely to learn how to use the basic menus and buttons in *Perseus* quickly but then begin to surf through the program in a random search for entertainment while actually learning very little. Exploration is vital, of course, but it will not get the assignment done; this takes skills that can be developed only through directed learning. So a student's first few encounters with *Perseus* must be structured.

II. How You Create a Learning Environment

"What are my objectives?" When you bring *Perseus* into the classroom you must have an initial set of objectives in mind. These objectives will evolve as you and your students become familiar with the program. It is important to set objectives at the outset because adjusting to using *Perseus* in the classroom is unlikely to be effortless. To achieve your objectives it is especially important that *you* become a good *Perseus* user. This includes being aware of possible glitches you may encounter in the program, in the classroom and with the your computer system. As you develop your approach to using *Perseus*, and learn how your students are inclined to use the program, your objectives will become more refined. They will also be more readily achieved. A good idea is to try to become familiar with the database along with your students. But avoid surfing. By learning how to use the database together in a disciplined manner, you can create a community learning infrastructure to which every one contributes knowledge and insight based on a foundation of mutual support and enthusiasm.

III. Acquiring the Resources You will Need

"What resources will I need to reach my objectives?" To do the job right, the hardware and software requirements are: basic configuration Macintosh LC or higher with at least 8 Mb of RAM, a hard disk, a color monitor and an Apple-compatible compact disk player, plus the appropriate connectors and power cables. The model (processor) of Macintosh you have determines the speed at which *Perseus* and other applications will perform their functions. *Perseus* requires an up-to-date version of Macintosh system software and the QuickTime™ system extension from Apple, which should be standard with System 7.0 or higher on your computer. *Perseus* 2.0 will ship with *Perseus* Player for use with the program. *Perseus* can be used over an AppleShare™, Novell™ or Tops™ network.

IV. Overcoming Limited Resources

"What if I only have one copy of Perseus?" So you only have one copy of *Perseus*, this is no reason not to make use of *Perseus* in the classroom. *Perseus* can aid you in your every-



day lessons both directly and indirectly. The most important thing to do is to make the most of what you have despite a lack of resources.

An indirect use of *Perseus* in your everyday lessons is to use *Perseus* for research that can be reworked into worksheets and information for distribution in class. You may then use your document as an example of the students themselves can do with *Perseus*. The *Knowledge Builder™*, "How to use *Perseus* with a Word Processing Program," teaches you how to take information from *Perseus* and organize it into a document. The documents and worksheets that you create may also include images. The print quality for *Perseus* images printed from a laser printer are very good.

There are quite a few ways to integrate *Perseus* directly into your daily lessons. The first method of integration is to actually have *Perseus* in the classroom. It is always best to orient your students to *Perseus* in a controlled situation. You using *Perseus* while it is projected onto a screen or wall is the most control you can have. It works best to create a Path or to have an organized series of steps made up prior to demonstrating *Perseus* in the classroom. You should be confident in each one of the steps in your Path or demonstration and in the use of *Perseus*. *Students smell fear*. If you are having trouble with the program this will lead others to believe that it is not user friendly. Once you have a lesson prepared then it is safe to begin using *Perseus* in the classroom. As you learn the program then it will become easier for you to simply move about without having practiced your moves.

V. Equipment you will need to use *Perseus* in the classroom

There are a few ways in which you can make *Perseus* more easily visible for your class when using the program in the classroom. One is to use a large computer monitor, this works fine in a small class but tends to alienate those in the back row of a large class. For a class of 12 students or less, a 27" or larger high resolution monitor works well. Otherwise it is best to use some kind of projection system. The least expensive type of projection systems is an LCD (liquid crystal display) panel and an overhead project. If you use a panel, make sure that it is an active matrix panel. These are more expensive than passive matrix panels, but are capable of showing animation and video. It is best to have an overhead whose light runs at least 4000 lumens. A shoddy overhead project with a dim bulb will ruin the images from even the best LCD panel.

One step above the LCD panels are digital color projectors that are basically the LCD panels with a light source included. And even better than these are the 3-tube video projectors. If all courses using *Perseus* can be held in the same room it is recommended that a 3-tube video projector be permanently mounted from the ceiling of the classroom used for computer demonstrations. The three-tube video projectors provide much better image quality than the majority of the LCD panels and projectors.

An alternative to projecting is to use a large, high resolution monitor and a videodisk player to show images. To use the *Perseus* videodisk in tandem with the *Perseus* CD-ROM, it is necessary to have a video monitor (any color video monitor that can be



connected to the videodisk player will work), a videodisk player, and the appropriate cables to connect them to each other and to the computer. *Perseus* 1.0 includes the driver to run the videodisk right from the Macintosh. *Perseus* 1.0 will support these videodisk player models: Pioneer 4200, 6000A and 6010A, Sony 1500, 2000 and LDP 1200, and Hitachi 9550. The videodisk player will allow you to show all images and motion video on the *Perseus* videodisk but you will not be able to show any of the site plans and architectural plans since the videodisk does not contain them. Digitized images do have better resolution than the video images but the projection setup you choose depends, of course, on the resources you have available.

VI. Demands on You as the Instructor

“What resources should I provide to my students?” Your students’ foremost requirement is for a good instructor: *you*. Don’t be hesitant about this. Resources are available to help you quickly become a first rate instructor by letting you learn how to use *Perseus* as your students are learning. You should spend somewhere between one and two hours teaching students how to use the program. Then you move to structured assignments that allow them to use *Perseus* successfully.

VII. Demands on Your Community

“What kind of support should my school offer my students?” Number one on the list should be User Support. This may mean that you are available to help when students are using the program independently and/or it may mean having the ready support of other students who are particularly adept at using the program. Maybe it will be necessary only to educate the computer gurus in charge of the lab how to use the program so that they can be called on for help; or it could mean simply having reference materials readily available to the student who gets stuck. Students who are left without some sort of support will more frequently feel lost and frustrated than those that have some kind of support. Recovery from a sense of disorientation takes time and will not have a completely detrimental effect on the student’s *Perseus* experience but will most certainly do damage. Prevent disorientation and the “I hate *Perseus*” syndrome, provide some kind of user support.

VIII. Build Your Students’ Confidence

There clearly is an order in which students should learn how to use *Perseus*. First, the student should learn the database tools and Links. This can be interesting because it can be done while they are learning about ancient Greece, its art and archaeology and its literature. With a carefully structured introduction to the mechanics of using *Perseus*, you will avoid students fumbling through the program and becoming disoriented by the voluminous information packed in it. Confidence built by a good start will prepare students to explore the program on their own successfully and demonstrate to them how they can make discoveries on their own through the projects and exercises you assign. They should recognize that *Perseus* does not have all the answers but has clues to solving the problem at hand. *Perseus* is just a big screw driver, a tool to help them construct a solid argument. They are the ones who construct the argument and make discoveries using the tools they have available.

Work up to an encounter with large amounts of information. For instance if you perform an English Word Search for the word "Zeus" in all the Links, *Perseus* will list 2320 citations. If a new user had to sift through all this information the pain and frustration would only be detrimental. An intermediate user has the skills to filter through all this information and to find the relevant facts.

Provide students with the knowledge that the skills they learn by using *Perseus* are invaluable. The ability to filter out usable information is a necessary skill for succeeding in college or any job. Tools like *Perseus* have been or are being developed for many different subjects so the skills students learn are practical and may be applied to programs and databases in other subjects.

IX. Group Assignments to get things Rolling

Since we all do not follow the same train of thought each individual will use *Perseus* differently. This can lead to interesting results and discoveries. It can also lead to some students becoming bogged down by the tremendous amount of information available in the database. Solve this problem by having the students work in groups or pairs initially since two heads may be better than one. Prevent tension within these groups or pairs by having them evaluate each other and themselves in regards to how much work each person did on the project. Base the overall grade on the final product, the rating of a group's members by other members and the individual's perception of their own work. Once the students have completed a few simple *Perseus* exercises and a group project, they will be more comfortable using the program on their own for research.

X. What you should anticipate

In terms of problems with the computer system expect the unexpected. Each computer has its minor quirks that hopefully you will never encounter. To make sure *Perseus* runs smoothly check the following things:

- All cords are connected properly.
- All the necessary software is installed properly. (Follow the installation directions in the *Perseus* User's Guide.)
- Check that Perseus Player is set to run at least 4000K if you have more than 8 Mb of RAM available on your computer. If you have more than 12 Mb of RAM, *Perseus* 2.0 will run great if Perseus Player is set at 6000K.
- Make sure that there is only one copy of Perseus Player on your hard drive.

On the human side, expect some students to use the program for each and every assignment. Expect other students not to use the program unless required. It is not that students are afraid of the program, as long as they have the proper training and support, but that some students feel more comfortable using other means to reach their ends. Be clear about the desired outcome of a project. Periodically check on students' progress, especially with their first independent assignment, to make sure that they are not lost or have not gone off on some tangent.



XI. What's Ahead

The remainder of this *Teacher's Companion* covers information on a specific topic. You will find suggested assignments for use at both the high school and college levels. These assignments may be altered to be longer or shorter and to be done as an in-class assignment or a take home project. You will also find suggestions for what to do if you have limited resources and computers. The suggestions will help you to create a participatory or interactive classroom activity when only one copy of *Perseus* is available.

Lastly, the Appendix provides sample exercises and keys for model assignments that may be used as structured introductory, intermediate and advanced assignments. Enjoy using the database. It is only a tool and can never replace a teacher. Teachers are the key to learning and to making the most of the information available to students by bringing insight to the unknown and newly discovered.



Hephaestus

Prior to using *Perseus*: Exposure to the Greek Alphabet

If you intend to use *Perseus* in the classroom or to have your students use *Perseus* for research at the beginning, middle or end of an unit or course, it is best to expose them to the Greek alphabet. Exposure through transliteration will allow students to make better use to the database without fearing the Greek words they will run into.

In connection with Hephaestus, students should examine the Greek words that have been transliterated into English, often via Latin. Either in class or as an out-of-class exercise, have students turn the following words into would they believe to be the proper Greek spelling. Students should be supplied with a transliteration chart such as the one below. Once they have what they believe to be a Greek spelling have them check the spelling with the real Greek found by performing a search for each word in the English-Greek Word List in *Perseus*.

WORDS TO LOOK UP: *Hephaestus, Aphrodite, Athena, Lemnos, Aetna, pyro-*.

A. α	a	alpha	I. ι	i	iota	P. ρ	r	rhô
B. β	b	beta	K. κ	k	kappa	Σ. σ. ς	s	sigma
Γ. γ	g	gamma	Λ. λ	l	lamda	Τ. τ	t	tau
Δ. δ	d	delta	Μ. μ	m	mu	Υ. υ	u	upsilon
E. ε	e	epsilon	N. ν	n	nu	Φ. φ	ph	phi
Z. ζ	sd	zeta	Ξ. ξ	xi	x (sk)	Χ. χ	k-h	chi
H. η	e	eta	Ο. ο	o	omicron	Ψ. ψ	ps	psi
Θ. θ	th	theta	Π. π	p	pi	Ω. ω	ô	omega

When You Only Have One Copy of *Perseus*

With the right preparation any of the exercises suggested can be done in the classroom with a single copy of *Perseus*. The exercises can also be revised, shortened or lengthened, for out-of-class projects. Professors and teachers alike have recommended a sign-up procedure be put in place when a single copy of *Perseus* is available. Students should be instructed on the use of *Perseus* prior to sitting down to use the program and some kind of support should be available when they use it on their own.

The computer on which students will do their research should be easily accessible. It should also be designated or prioritized as the "*Perseus*" computer to avoid conflicts in its use. Try some of the following assignments in the classroom. Review each step that you will perform before you try it in front of an audience.



Assignment Suggestions

Time Line

The construction of a time line is an excellent orientation tool to what happens in an epic poem, myth or historical period.

Artistic Assignment

How often are students in a history or language class asked to be artistic? Art plays a major role in all aspects of ancient Greek studies. It was and is a medium of education. Close examination of the art from the past may teach a student more than she/he can learn from a book or lecture. Students can design their own vases, sculptures or coins relating to their chosen or assigned topic.

Open Ended Discussion

What issues faced the ancient Greeks that are not of relevance to us today? What issues are relevant to people now and then? Come up with some questions that have no real answer and create a dialog between those in the class.

Word Analysis

Students do not have to know Greek to make use of the English to Greek Word Search. The appearance of the word in question in a definition found in the Greek-English Lexicon offers clues to its true meaning or to what the Greeks really meant by its use.



Art & Literature Comparisons

Sophocles' plays were social commentaries but did you ever think that a vase could serve the same purpose? After reading Sophocles' *Ajax*, a comparison to what happened in the play in regard to Achilles' armor and Ajax's suicide, was made between the text and vases that depict the scenes from the play. The play describes Ajax falling on his sword to take his own life but a vase depicts Ajax stabbed through the back with his sword. What is the painter trying to say with this depiction?

Family Trees

If you were to look at the Encyclopedia entry for any god or goddess, mythical or historical figure you would find notes describing their origin and offspring. From these Encyclopedia entries family trees are easily constructed.

Atlas Assignment

Ancient Greek literature is filled with place names. References to sites where mythological births, deaths, travels or conflicts occurred are numerous. The Atlas is an excellent tool with which students may become familiar with the places and geographical areas from myth and literature. Combing the Atlas' maps with actual site images will enhance students' understanding of the world in which heroes lived and died, gods decided men's and women's fates and people went about their daily lives.



Assignments

These assignments serve many purposes. They are exercises in research, the use of specific *Perseus* Links, word analysis and evaluation of information both textual and visual. The topic of each exercise can be changed without having to alter or write a new assignment. Because of the amount of information and its accessibility in *Perseus*, high school students and undergraduates will be able to do these assignments at a level previously achievable only by graduate students and professors.

***Note:** When you perform an English Word Search for Hephaestus, you should use the spelling “Hephaestus” when looking for textual references. To find archeological references, you must use the spelling “Hephaistos.” A “Starting Character” search will not get results for both spellings of Hephaestus.

The Lame God

It is unexpected that a god or goddess would be less than physically perfect. Hephaestus was lame at birth and as Homer put it walked on thin legs. Why might the Greeks include a less than perfect god in their pantheon? There are variations in the story of Hephaestus’ survival as an imperfect god. Students should investigate what Hephaestus endured at the hands of his parents for his imperfections. They should pay close attention to Hephaestus acceptance into the pantheon for the skills he possessed. Below are some references to Hephaestus early life and handicap.

Artistic Impressions

Parthenon EF.5.33-37 - Hephaestus supports himself with a staff under his right arm and turns back towards Athena to speak.

Florence 4209 - This vase depicts the return of Hephaestus after his expulsion from Olympus by Hera. As revenge for her act, Hephaestus has sent his mother a golden throne which trapped her when she sat in it. Hephaestus refuses to return and release her until Dionysos gets him drunk. As a reward, Hephaestus is allowed to marry Aphrodite. See view “Second body frieze, side B: return of Hephaistos: center, Zeus and Hera, Aphrodite, Dionysos, Hephaistos.”

Harvard 1960.236 - Hephaestus rides an ithyphallic mule while carrying a double ax in his right hand. Compare Hephaestus’ legs to those of the satyrs who accompany him.

London 1971.11-1.1 - The wedding procession of Peleus and Thetis is ended by Hephaestus riding side-saddle on a mule. Look at the view “Upper frieze: wedding of Peleus and Thetis: Hephaistos and Altheia.”

Würzburg H 5352 - Hephaestus is returning to Olympus to release Hera from her bonds. He rides a donkey or mule and his left foot is exposed. His left foot is misshapen.

Textual

Apollodorus 1.3.5 - Zeus tossed Hephaestus from Olympus for attempting to rescue Hera. Hephaestus landed on Lemnos and became lame. Thetis saves him.



Apollodorus Note 1.3.5.e - This note discusses lameness in the mythology of other cultures. It does not say why lameness is significant but it is a good place to start a comparative investigation.

Herodotus 3.37.2 - The image of the Phoenician Pataici Hephaestus, which the Phoenicians hang on the prows of their triremes, is the likeness of a dwarf.

Hesiod, *Theogony* 928a - Despite his handicap, Hesiod describes Hephaestus as the one more skilled in crafts than any of the other gods.

Hesiod, *Theogony* 945 - Hesiod describes Hephaestus as “the famous Lamé One.”

Homeric Hymn 3b: To Pythian Apollo, lines 310-325 - Hera describes the birth of Hephaestus, her son by Zeus. She says that Hephaestus was born with a shriveled foot. Hephaestus’ deformity caused Hera great shame so she threw him off Olympus and into the sea.

Homer *Iliad* Book 1.598-99 - In this passage, the gods and goddesses laugh heartily as Hephaestus makes his way through the palace at Olympus.

Homer *Iliad* Book 1.605 - Homer uses an epithet for Hephaestus that describes him as the “limping god” who has built a house for each of the gods.

Homer *Iliad* Book 18.372 - Hephaestus is described as the “crook-foot god.”

Homer *Iliad* Book 18.395 - Hephaestus speaks of his lameness as a result of his fall. He says that the fall was the result of his mother’s shame who wished to hide him away.

Homer *Iliad* Book 20.36 - Homer describes Hephaestus’ might and his “slender” legs on which he moves easily.

Pausanias 5.19.8 - Hephaestus is depicted in a piece of art on which he appears to have weak legs. A slave must walk behind him holding a pair of fire-tongs.

Plato, *Republic* 378d - Plato relates the version of Hephaestus maiming by Zeus.

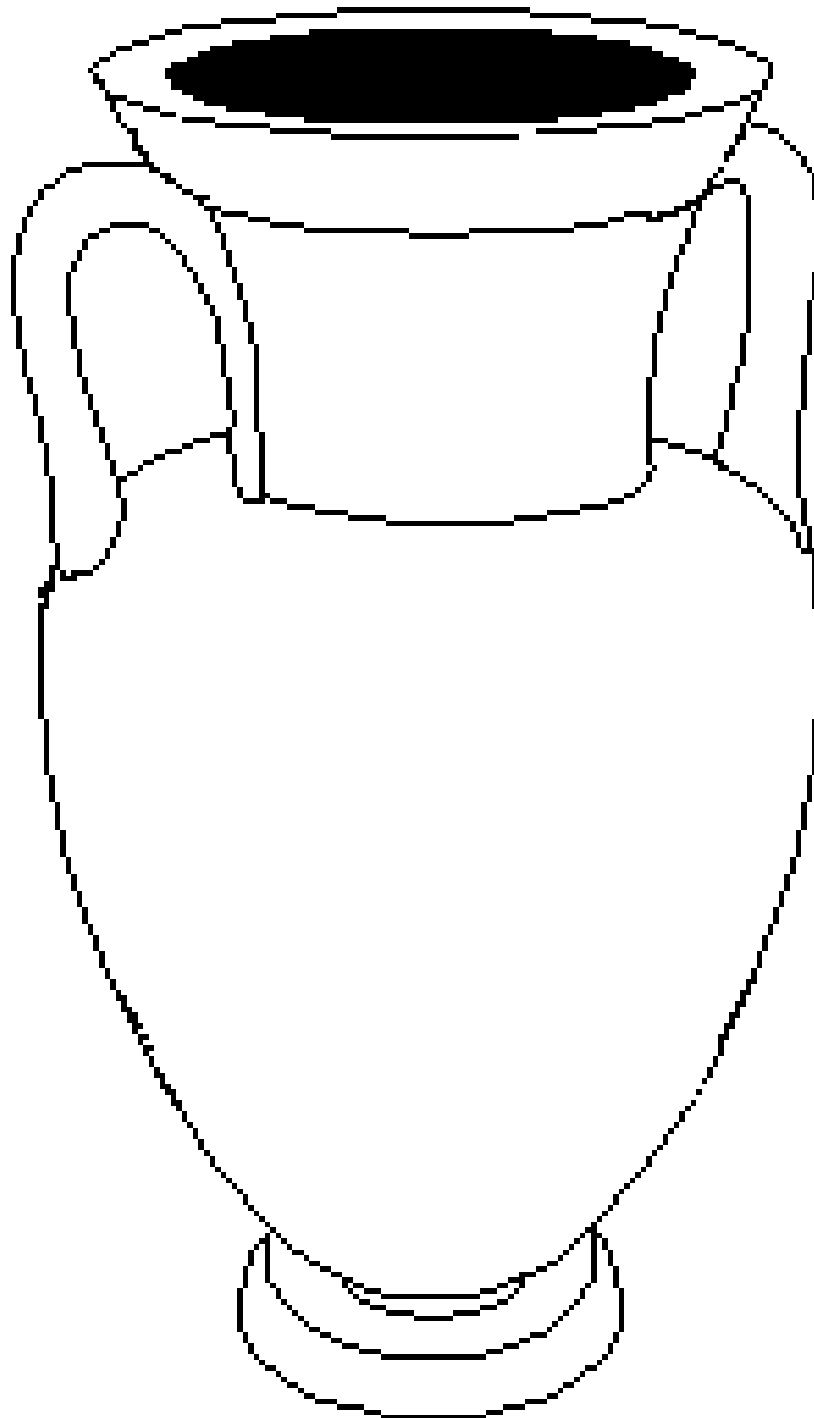
Questions

1. What did the Greeks do with physically handicapped children?
2. Why might the Greeks adopt Hephaestus as a god? He is the god of the forge and crafts but so is Athena. Why did they need Hephaestus as well?
3. Can you find a reference in the *Perseus* text of another god or mortal who is lame? Blind? Otherwise physically or mentally handicapped?
4. Find some examples of Hephaestus’ handiwork.



Create a Vase

Use the information from a search for “Hephaestus” on vases in the Object Keyword Search to create a vase. This vase must depict a mythical scene in which Hephaestus and those associated with him appear. On the back of this paper explain the myth your scene depicts and why you chose this scene. Use the vase outline below as your template.



Associated Items and Beings

A god or goddess alone is inadequately defined since the people, beings, animals and things associate with a god or goddess say a lot about them. Through visual aids and texts, students can learn about the whole god or goddess by the items, people, beings, animals and things that accompany them or that are used in the exploits.

Below are citations for selected vases, coins, sculpture and text that demonstrate and explain the people, beings, animals and things associated with Hephaestus. Each representative citation has been selected for its image clarity and description.

People

- Athena -** Parthenon EF.5.33-37.
Boston 00.330.
Apollodorus 3.14.6.
Homer *Odyssey* Book 6.333.
Pausanias 1.14.6.
Pausanias 3.18.13.
Pindar, *Olympian Ode* 7.34.
Plato, *Critias*, 109c-109d.
Plato, *Protagoras*, 321c.
- Hera -** Florence 4209, Vase Description.
Apollodorus 1.3.5.
Hesiod, *Theogony* 928a.
Homer *Iliad* Book 14.166-169, 14.238-241.
Pausanias 1.20.3.
Pausanias 3.18.16.
- Fire -** Aeschylus *Prometheus Bound* 1-10, 368.
Apollodorus 1.9.23.
Aeschylus, *Agamemnon* 281.
Hesiod, *Theogony* 865.
Homer *Iliad* Book 2.427, 9.469, 17.92-92, 23.33.
Homer *Odyssey* Book 24.71-78.
Pindar, *Pythian Ode* 3.41.
- Forge/Smithy -** Apollodorus 1.4.3.
Aeschylus *Prometheus Bound* 368.
Apollodorus Note 3.13.3.b.
Homer *Iliad* Book 15.309-310.
Homer *Iliad* Book 18.370-376.
Homer *Iliad* Book 18.470-469.
Homer *Iliad* Book 21.343-358.
Thucydides, *History of the Peloponnesian War* 3.88.3.
- Aphrodite -** Florence 4209, Vase Description.
Homer *Odyssey* Book 8.266-369.



Family

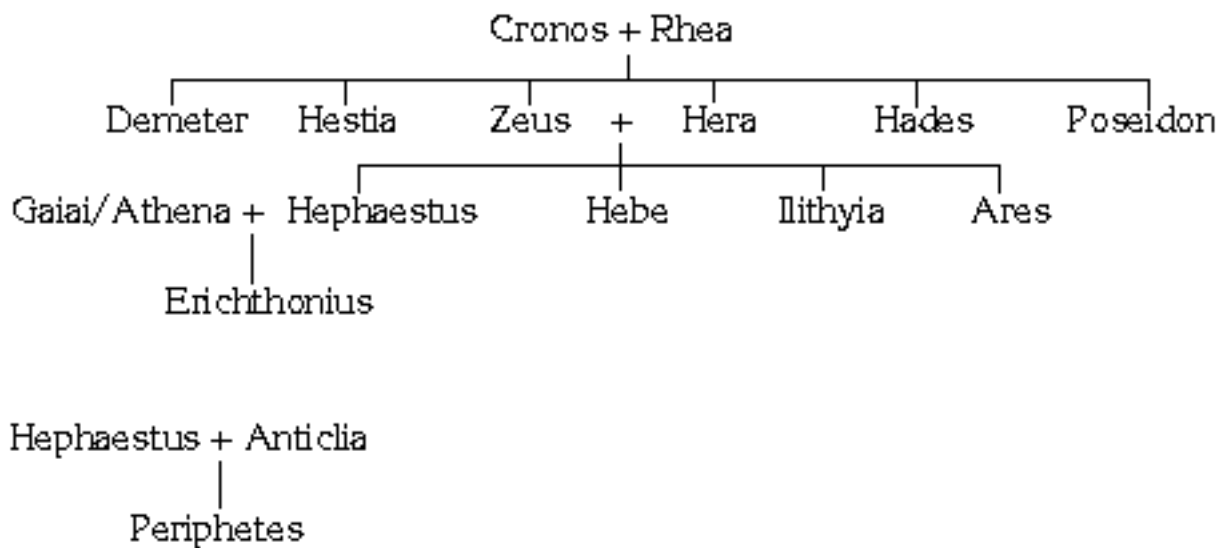
As one of the twelve main gods, Hephaestus' relatives and offspring appear in many main stream and well-known myths. Below are the beginnings of a chart of Hephaestus' family, including his children by various mortals and goddesses. Students should complete the chart. They can then use this chart to complete the next assignment of creating a family tree for the god.

Family Member	Relation	Text
Zeus	Father	Homer, <i>Iliad</i> 1.577.
Hera	Mother	Apollodorus 1.3.5, Hesiod, <i>Theogony</i> 928a.
Palaemon	Son	Apollodorus 1.9.16.
Erichthonius by Atthis/Athena	Son	Apollodorus 3.14.6.
Erichthonius by Earth	Son	Pausanias 1.2.6.
Periphetes by Anticlia	Son	Apollodorus 3.16.1.
Ardalus	Son	Pausanias 2.31.3.
Cadmilus by Cabeiro	Son	Strabo, <i>The Geography</i> 10.3.21.
Three Cabeiri & three Cabeiro	Children	Strabo, <i>The Geography</i> 10.3.21.



Family Tree

Using the information from the Encyclopedia entry for Hephaestus or from the above chart, student should create a family tree for Hephaestus like the one below. Notice that separate trees may need to be created to include all of the relevant family members. Student should devise their own symbols that denote: relation, unknown parentage, sex, etc.



The God of Fire and the Forge

The most important aspect of Hephaestus' identity is his association with craftsmanship. His skills in metal working earned him a place among the Olympians and a cult following on Earth. The works of Hephaestus are described in great detail by Homer and Hesiod. Students should examine Hephaestus' works and his teachings in the art of metal working and craftsmanship.

A list of Hephaestus' work appears below. This list should be added to by students each time they do this assignment.

His Role as the Greatest Craftsman

Dewing 968 - This the only coin on which Hephaestus appears. He sits on a chair with a hammer. The image is dark.

Aeschylus *Prometheus Bound* 368 - Hephaestus sits and hammers the molten ore on top of Mount Aetna.

Apollodorus 1.4.3 - This is a reference to Hephaestus' "smithy."

Hesiod, *Theogony* 865 - Hephaestus' strength melts iron ore into the earth.

Hesiod, *Theogony* 928a - Despite his handicap, Hesiod describes Hephaestus as the one more skilled in crafts than any of the other gods.

Homeric Hymn 20: To Hephaestus, et alia - This short hymn calls upon Hephaestus who is "famed for invention." He, along with Athena, teach men crafts thus bringing them out of their caves to live in a civilized manner.

Homer *Iliad* Book 18.144 - Thetis describes Hephaestus as the "famed-craftsman."

Homer *Iliad* Book 18.370-376 - This passage describes the house of Hephaestus that is the preeminent house of the gods. The house is wrought with bronze and covered in stars. In the house Hephaestus is making tripods at his forge.

Homer *Odyssey* Book 6.333 - When a man is skilled in metal working he is said to have been taught his craft by Athena and Hephaestus themselves.

Pausanias 5.19.8 - Hephaestus is depicted in a piece of art on which he appears to have weak legs. A slave must walk behind him holding a pair of fire-tongs.

Plato, *Laws* 920d - Hephaestus and Athena are responsible for providing craftsmen with their skills to make crafts that society could not do without.

Plato, *The Statesman*, 274c - Socrates says that according to tradition, the gods gave man what he need, i.e., fire from Prometheus, crafts from Hephaestus and grain from Demeter.

Thucydides, *History of the Peloponnesian War* 3.88.3 - Thucydides says that people believe that Hephaestus has his forge in Hiera because of the quantity of flame that they saw at night and the smoke they saw during the day.



Works he has created

Apollodorus 1.4.4 - In this passage, Apollodorus makes reference to a house under the earth constructed by Hephaestus for Poseidon's son, Orion.

Apollodorus 2.4.11 - Herakles received a golden breastplate from Hephaestus.

Apollodorus 2.5.6 - "Brazen castanets" received from Hephaestus.

Apollodorus 3.4.2 - Hephaestus made a necklace said to have been to Cadmus by Hephaestus.

Apollodorus Note 3.13.3.b - Peleus receives a magic sword made by Hephaestus as a reward for chastity.

Apollodorus Epitome 4.7 - Achilles' suit of armor was made for him by Hephaestus.

Aristotle, Politics, 1253b - Hephaestus created tripods that 'enter self-moved the company divine.' Aristotle includes this remark in a discussion of the need for assistance to craftsmen whose tools, unlike Hephaestus' tripods, would not work on their own.

Euripides, Iphigenia at Aulis line 1072 - The chorus retells a prophecy of the coming of Achilles. The prophecy says that Achilles will arrive dressed in golden mail forged by Hephaestus.

Hesiod, Shield of Herakles 123 - Herakles received a gift of bronze grieves made by Hephaestus.

Hesiod, Shield of Herakles 241-244 - The women on top of the towers in the scene on the shield of Herakles looked alive. Hephaestus made this shield for Herakles.

Hesiod, Works and Days 60-63 - Hephaestus mixed earth and water, gave it strength and a voice and shaped it into the first woman, Pandora.

Homer Iliad Book 1.605 - Homer uses an epithet for Hephaestus that describes him as the "limping god" who has built a house for each of the gods.

Homer Iliad Book 2.103 - Hephaestus made a scepter for Zeus that Zeus gave to Hermes who gave it to Atreus and finally the scepter ended up in the hands of Agamemnon marking him as the lord of the many Greek islands.

Homer Iliad Book 8.195 - Hephaestus wrought the breastplate of Diomedes.

Homer Iliad Book 14.166-169 - The doors and door-post of Hera's chamber were made by Hephaestus so that when locked no one could open them.

Homer Iliad Book 14.238-241 - "And gifts will I give thee [to Aphrodite from Hera], a fair throne, ever imperishable, wrought of gold, that Hephaestus, mine own son, [240] the god of the two strong arms, shall fashion thee with skill and beneath it shall he set a foot-stool for the feet gift."

Homer Iliad Book 15.309-310 - Hephaestus created the dreadful aegis for Zeus.

Homer Iliad Book 18.144, Pausanias 9.27.7 - Hephaestus made the armor of Achilles.

Homer Iliad Book 18.370-376 - This passage describes the house of Hephaestus that is the preeminent house of the gods. The house is wrought with bronze and covered in stars. In the house Hephaestus is making tripods as his forge.

Homer Iliad Book 18.400 - In the nine years he spent with Thetis, Hephaestus made brooches, spiral arm-bands, rosettes and necklaces

Homer Iliad Book 18.470-569 - This passage describes the creation of the shield of Achilles



Homer *Iliad* Book 18.609 - To go along with the shield, Hephaestus also wrought a corset, a heavy helmet and greaves of pliant tin.

Homer *Iliad* Book 20.10-12 - Hephaestus built polished colonnades for Zeus.

Homer *Odyssey* Book 4.615 - Telemachus is offered a mixing bowl of silver with gold rims made by Hephaestus.

Homer *Odyssey* Book 7.89-95 - Gold and silver dogs made by Hephaestus guard the palace of Alcinous.

Homer *Odyssey* Book 8.266-369 - This is the story of Ares and Aphrodite's affair, when Hephaestus traps the lovers in bonds that no one can break.

Pausanias 1.20.3 - Hera threw Hephaestus down from Olympus so he made a golden throne with hidden fetters in which to bind her. Hephaestus would not release his mother until Dionysos got him drunk and brought him to Olympus.

Pausanias 9.41.1-2 - This is a list of items Hephaestus presumably made.

Association with Fire

Aeschylus, *Agamemnon* 281 - Clytemnestra sees the flaming signal that announces the arrival of Agamemnon. In the metaphor she uses, she refers to fire as Hephaestus.

Apollodorus 1.6.2 - Hephaestus helped kill the Giants using "missiles of red-hot metal."

Apollodorus *Epitome* 4.7 - Hephaestus dried up the rivers using his flames.

Euripides, *Cyclops* line 600 - Before thrusting the glowing stick into the Cyclops' eye, Odysseus calls on Hephaestus in the form of the burning end of the stick to burn the eye of the enemy.

***Homeric Hymn 4: To Hermes*, line 115** - The hymn says that Hermes created fire and fire sticks. Starting a fire to prepare a sacrifice to the gods, Hermes built a fire the hymn says, "the strength of glorious Hephaestus was beginning to kindle."

Homer *Iliad* Book 2.427, 9.469, 23.33 - The fire used to cook the flesh of a sacrificial victim is referred to as Hephaestus' fire.

Homer *Iliad* Book 17.92-92 - The flame of Hephaestus may not be quenched.

Homer *Iliad* Book 21.343-358 - Hephaestus made a fire that burned all the bodies of men slain by Achilles.

Homer *Odyssey* Book 24.71-78 - The sacrificial flame used to burn the meat left for the gods is referred to as the "flame of Hephaestus."

Pindar, *Pythian Ode* 3.41 - Apollo snatches Aesclepius from his mother whose body is on the funeral pyre. The flames of Hephaestus are about to consume mother and child.

Sophocles *Antigone* 1005 - The flames of Hephaestus do not burn an offering set out by Teiresias.

Xenophon, *Cyropaedia* 7.5.22 - The generals tell their army that Hephaestus is on their side. Hephaestus means fire in this case as fire can be used to burn down the houses of their enemy. Therefore the soldiers should not be afraid of people going onto their roofs and hurling projectiles at them because the soldier can just use Hephaestus to burn the houses down.

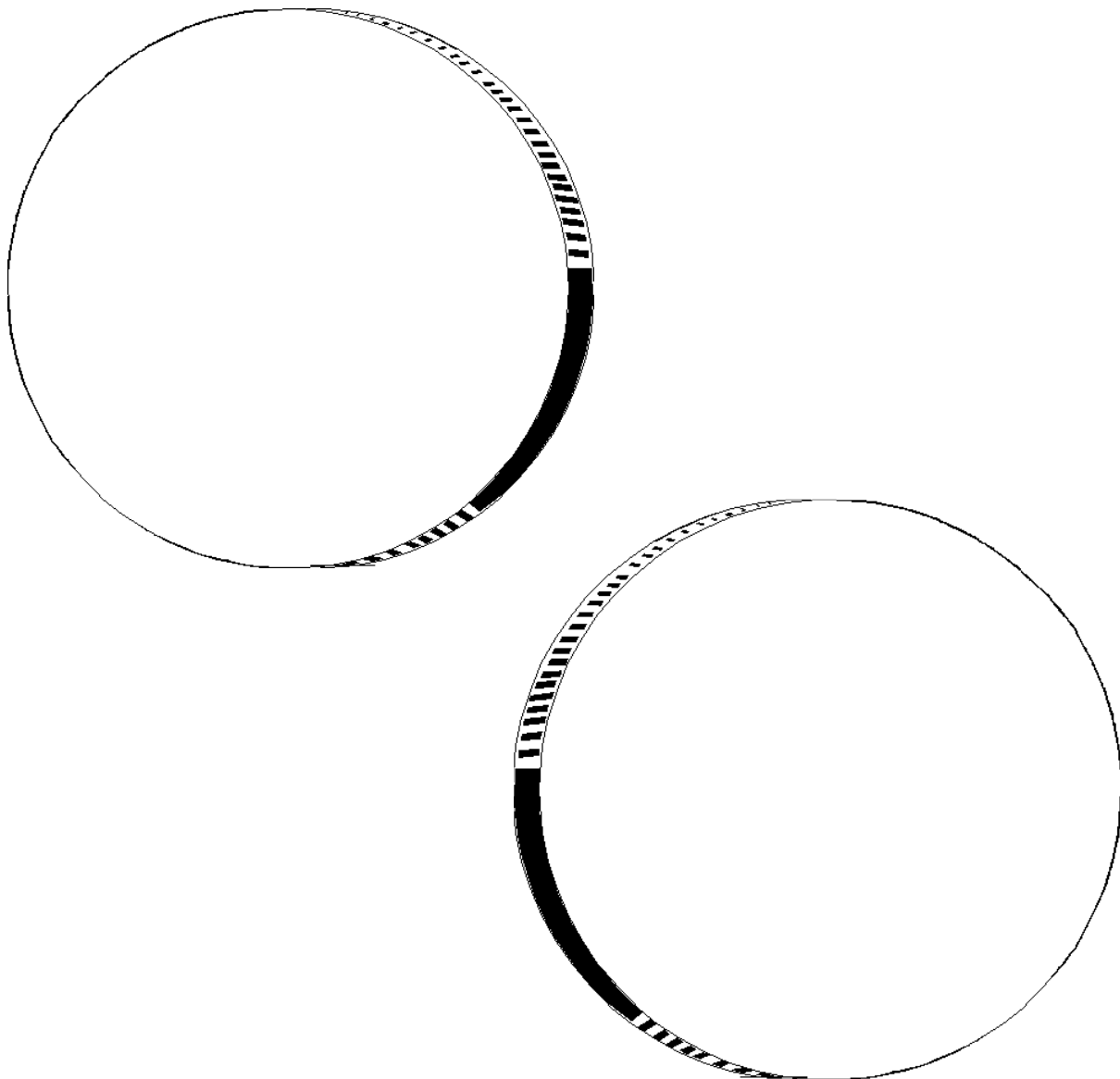


Create a Coin

Students should look at the coins on which Hephaestus appears. They should make note of who and what appears on the coins with Hephaestus either on the same side as Hephaestus or on the opposite side. Students should also investigate items, animals and beings that are associated with Hephaestus. With this information in mind, students should create a coin on which Hephaestus and an associated item, animal or being appears. Below are some excellent examples of coins on which Hephaestus appears for students to start with. Students should use the coin outlines provided to draw their coins.

Dewing 968 - This the only coin on which Hephaestus appears. He sits on a chair with a hammer. The image is dark.

*Students can also use their imaginations to create a coin from the text describing Hephaestus and his work.



Epithets

The names of gods and goddesses are often accompanied by a finite number of traditional epithets that describe the personality or associations of the divinity. Below is a list of epithets and their Greek equivalents associated with Hephaestus. Students should do their own investigation for the epithets of Hephaestus and then add their findings to this chart. Students can then form a better understanding of how the Greeks and other cultures viewed the nature of their gods and goddesses from the list of epithets they create and add.

Epithet

κλυτός

ἀμφιγύεις

περικλυτός

κλυτοτεχνής

ἀναξ

χαλκεύς

Κυλλοποδίων

μεγας

πολύμητις

πολύφρων

ἀναξ Αἰτναῖος

γενναῖος φάος Ἴστωρ

Text

famous, renowned, glorious.

of Hephaestus, he that halts in both feet, the lame one.

heard of all round, famous, renowned, glorious.

famous for his art, renowned artist.

lord.

a worker in metal, a smith.

crook-footed, halting.

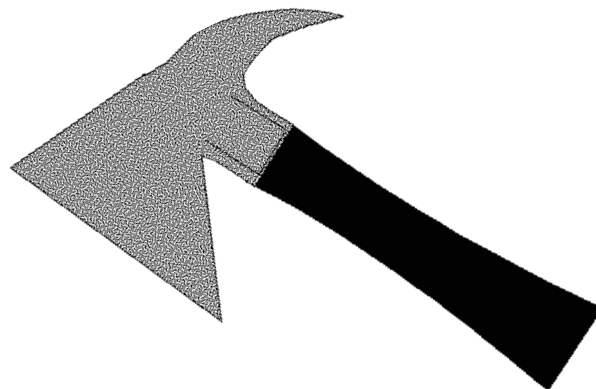
the great.

of many counsels.

much-thinking, thoughtful, ingenious, inventive.

lord of Aetna.

noble wise man of light.



Associated Rituals

An important part of the nature of a god or goddess may be discerned from the rituals performed for the favor of that god or goddess. Students should look at the rituals performed in favor of Hephaestus. Students will also want to look at where the rituals are performed, who performs the rituals and whether the societies that include these rituals in their religious practices worship only Hephaestus or Hephaestus along with other gods and goddesses.

Below are two textual examples of ritual sacrifices to Hephaestus and rituals that are part of the festivals for Hephaestus.

Textual

Aristophanes, *Plutus* line 660 - During the purification of Plutus, Cario says that they consecrated “wafers and the various offerings” on an altar and then offered a “cake of wheaten-meal” Hephaestus.

Aristotle, *Constitution of the Athenians*, 54.7 - The Yearly Sacrificial Officers conduct sacrifices and manage the four-yearly festivals at Athens except for the Panathenia. Later a festival in honor of Hephaestus was added to the yearly festivals that established in the archonship of Cephisophon.

Herodotus 2.151.1 - In Egypt Hephaestus is known as Ptah and this passage deals with the tradition of using a helmet to pour libations to Hephaestus. the pouring of libations was performed by kings.

Herodotus 8.98.2 - Riders carry torches and pass them from one to the next in the torch race held in honor of Hephaestus.

Plato, *Philebus* 61c - Protarchus and Socrates are going to mix knowledge and pleasure and have Dionysos and Hephaestus preside over the mixing as if Protarchus and Socrates were mixing wine to pour libations.

Pseudo-Xenophon, *Constitution of the Athenians*, 3.4 - The festival held in honor of Hephaestus at Athens is called the “Hephaestia.” Plays were performed at the festival as indicated by Pseudo-Xenophon’s mentioning of the magistrates elected to settle disputes for chorus leaders.



Atlas

Temples, sanctuaries and precincts of Hephaestus appear all over the Greek world. As a demonstration of the wide spread influence of Hephaestus, students should plot the sites listed below. This will also serve as practice in the use of the Atlas. Directions for plotting sites appear in assignment #5 of the Quick Start System™.

Sites of temples and sanctuaries

Lemnos, Sicily, Crete, Olympia, Patrae, Hierapolis, Memphis (Egypt),
Thermopylae.



The Tools of Hephaestus

Hephaestus' trademark was his double-headed hammer, or *pelekys*, that he has shouldered in many vase paintings. Students should investigate the pelekys and other tools that Hephaestus used in his craft. Below are list of vases and texts that depict and describe Hephaestus' tools.

Harvard 1960.236 - A satyr carries a pair of hammers for Hephaestus on his return to Olympus.

Berlin F 1704 - Hephaestus carries his double headed hammer.

Louvre G 135 - Hephaestus returns to Olympus carrying his hammer.

Berlin F 2294 - Hephaestus holds his hammer as he gives Achilles' armor to Thetis.

London E 410 - Hephaestus carries the ax he used to split Zeus' head so that Athena was born.

Munich 2361 - Hephaestus "is holding his upraised hammer in his left hand, against his left shoulder. In his right he carries his tongs with a glowing ember gripped in them, its white color mostly worn away."

Toledo 1982.88 - Hephaestus holds his hammer in one hand a his tongs in another.

London F 68 - A drunk Hephaestus staggers in supported by a satyr as his pelekys rests on his shoulder.

Louvre CA 616 - wears a mantle, chiton and winged sandals and holds his hammer.

Delphi, Siphnian Treasury Frieze—North - Hephaestus works the bellows in this sculpture.

The Kleophrades Painter: Harvard 1960.236 The Return of Hephaistos by Michael Padget - Padget mentions that the double headed hammer that Hephaistos carries is a trademark of the god.

Apollodorus 1.4.3.

Aeschylus Prometheus Bound 368.

Apollodorus Note 3.13.3.b.

Euripides, Electra line 442 - The chorus mentions Hephaestus anvil used to create the sheild of Achilles.

Homer Iliad Book 15.309-310.

Homer Iliad Book 18.370-376 - Homer describes Hephaestus' bellows, tongs and hammer.

Homer Iliad Book 18.470-469.

Homer Odyssey Book 8.274 - Homer mentions the anvil of Hephaestus.

Pausanias 5.19.8 - Hephaestus is depicted in a piece of art on which he appears to have weak legs. A slave must walk behind him holding a pair of fire-tongs.

Thucydides, History of the Peloponnesian War 3.88.3.



Hephaestus in Art and Literature*

Art

The Feast of the Gods, by Giovanni Bellini, 1514.

The Discovery of the Infant Erichthonius, by Peter Paul Rubens.

Literature

Metamorphoses, Ovid.

Fabulae, Hyginus.

*References: Powell, Barry B. *Classical Myth*. Prentice Hall: New Jersey, 1995.

Lenardon, Robert J. *Classical Mythology*. Longman Press: New York, 1991.

Path Suggestions

A Path is a sequence of locations in *Perseus* stored on Path Cards by the creator. The Path card shows all locations saved as a Path in sequential order from left to right. Each Path location is represented by a Link icon in which that location is found. A Path allows the Path user to learn about a topic through a series of stops, each one building on the previous one. Paths can be of great benefit to a new *Perseus* user introducing her/him to what *Perseus* has to offer.

Path assembly is easy when you work from the Hephaestus *Knowledge Builder™*. Use the *Knowledge Builder™* for Hephaestus to make a general Path. Include a Path step for each citation from the Hephaestus *Knowledge Builder™* mentioned in the directions and then add your Path Notes pointing out what is relevant to what you are reading or discussing in class. Path directions are available as a *Knowledge Builder™*, see the last page of this *Teacher's Companion™* for details.

Use the Assignments on the previous pages to build Paths associated with word analysis, art and archaeology and Primary Text evaluation. This is an excellent way to get students to think about a subject and to bring their own experiences and perceptions into their work.



Appendix A

These exercises may be given as in-class or out-of-class assignments. The exercises will take between thirty (30) minutes and an hour to complete depending on the student's computer skills. An answer key follows each practice exercise. Make sure that you give the students a thorough introduction to *Perseus* before having them attempt either exercise.

Exercise I

You will be asked to answer basic questions the answer to which you will find in *Perseus* without too much searching.

1. Name two ways to get to the Site Index.
 1. _____
 2. _____
2. Locate the three (3) main buildings at the site of Eleusis. (Hint: look at the Large site plan and the site description.)
 1. _____
 2. _____
 3. _____
3. Find one vase, one sculpture and one coin on which one of the following heroes appears: Perseus or Ajax. Fill in the information as requested below.

Vase

Museum Number (i.e. London 1983.01.176) _____
Period _____
Excavations Date _____

Sculpture

Museum Number _____
Date _____
Material _____

Coin

Museum Number _____
Denomination _____
Metal _____

4. Find the Encyclopedia entry for "Theater" and list five of the terms from the "See Also" column.
 1. _____
 2. _____
 3. _____
 4. _____
 5. _____



5. Use the English Word Search to find the word “god” in the Historical Overview (Overview). List 5 of the citations.

1. _____
2. _____
3. _____
4. _____
5. _____



Key to Exercise I

1. a) From the Perseus Gateway, go to the Art & Archaeology table of contents and choose a site index.
b) Select "Sites" from the pop-up menu under Links at the top of the screen.
2. 1. Kallichoron or sacred well.
2. The cave of Pluto adjacent to a triangular court.
3. The Telesterion of Demeter.
3. Look at the follow vases, coins and sculpture for the answer to each question.

Perseus

Vases - Baltimore, Hopkins AIA B5, London B471, Malibu 86.AE.146.

Coins - BCMA 1923.119.9, Dewing 1213.

Sculpture - Athens Br. 13396.

Ajax

Vases - Florence 4209, London B193, Malibu 86.AE.286, Munich 1470.

Coins - Dewing 1476, Dewing 1478.

Sculpture - Aegina E 8, Aegina W 2, Aegina W 4, Aegina W 9, Aegina West Pediment 2, Aegina W 10, Aegina W 4, Aegina W 9.

4. Five of the following terms: Cavea, Cunei, Diazomata, Episkenion, Hyposkenion, Kerkis, Logeion, Orchestra, Theatron, Parodos, Paraskenion, Prohedria, Proskenion, Skene, Theologeion, Thymele, Thyromata.
5. Five of the following citations:
5.1 The Characteristics of the City State (*Polis*), **5.12** The Oracle at Delphi and Colonization, **5.25** Public Slaves, **6.18** Tyrants and Popular Support, **6.26** Solon and Democracy, **8.2.1** The Resources of Persia, **8.2.2** Persian Religion, **8.3.1** Croesus of Lydia and the Ionian Greeks, **9.1.4** Finances of the Alliance (Delian League), **9.4.7** The Significance of the Parthenon Frieze, **10.1** The Outlines of Greek Religion in the Classical Period, **10.1.2** The Gods and Human Behavior, **10.1.5.1** Large Animal Sacrifice, **10.1.8** Belief and Ritual, **10.2** The Development of Athenian Tragedy, **10.2.2** The Performance of Tragedy, **10.3.2** Private Sculptural Commissions, **12.1.2.1** Immediate Causes of War, **15.6** The Platonic Demiurge, **15.14** Aristotle of Slaves and Women, **16.11** Alexander in Egypt, **16.16** Alexander's Last Plans, **16.18** The Death of Alexander.



Task Oriented Exercise

Exercise II

1. Look closely at the vases Harvard 1960.312 and London B193. Read the description for each vase. List the similarities between the two vases and the differences.

Differences

1. _____
2. _____
3. _____
4. _____
5. _____

Similarities

1. _____
2. _____
3. _____
4. _____

2. Using the English Word Search, find five instances of the word "friend" in the works of Sophocles' play, *Electra*.

1. _____
2. _____
3. _____
4. _____
5. _____

3. Plot the following sites on the Atlas map and answer the questions below.

Athens, Sparta, Pylos, Knossos, Thebes, Ithaka, Mycenae, Troy

1. Which site is closest to Athens?
 2. Which site(s) is on an island?
 3. What line of latitude is Athens on? (Hint: Look under the word "Atlas" at the top of the screen for help.)
 4. Which direction would you travel if you went from Sparta to Troy?
 5. Which one of the sites plotted is closest to Italy?
4. From the site catalog on Pylos, find out in which building the Linear B tablets were found.
 1. _____
 5. Find the Encyclopedia entry for Crocodile's Town. Go to the Primary Text citation "Hdt. 2.148" and read from section 1 to section 7. Summarize Herodotus' description of the Crocodile's town Labyrinth.



Group or Research Project

This assignment can be given as a directed exercise to demonstrate to students how they might go about researching a topic. The order of execution given below is only one way to reach a given goal. Since everyone uses *Perseus* differently it should be made clear that this is not the only way to research the appearance of animals on shields.

Order of execution

1. Browser Search - under 'Weapons' find 'Shield.' Look at images and descriptions of animals that appear on vases, sculpture and coins.

Example Vases

Baltimore, Hopkins AIA B8, Baltimore, Hopkins BMA 60.55.2, Boston 00.330, Boston 13.186, Boston 63.473, Boston 97.368, Boston 98.916, Florence 4209, Harvard 1960.312, London B161, London B193, London B209, London B210, London B329, Malibu 77.AE.11, Malibu 86.AE.114, Munich 2620, Munich 2688, Worcester 1966.63.

2. Look at the Encyclopedia entries for animals on shields. The Encyclopedia entries will point out stories about the shields, who possessed them and why a certain animal appears on a shield.

Encyclopedia

Shield, Cock, Lion, Dragon, Gorgon, Crab and more.

3. Look at the Primary Text information about the shields on which animals appear, searching for explanation of the use of animals on shields and their representation.

Primary Text

Apollod. 1.149 the invention of shields by Acrisius and Proetus.

Design your own shield

Symbols on Greek hoplite shields may be likened to a coat of arms. Students should choose their own animal or being and draw it on the shield outline provided below. Shield examples can be found in the list that appears in the previous assignment.



**For more free materials from
AbleMedia, visit the
Classics Technology Center
<http://ablemedia.com/ctcweb>**

50 Clark Street • Medford • MA 02155-4474
(781) 396-7582 • FAX (781) 393-5643
e-mail: ctcweb@ablemedia.com
<http://ablemedia.com/>

