

# Physical Sciences Collection Plan

## I. Description

**A. Collection coverage.** Physical science is the study of the natural world excluding living systems. This section of the nonfiction collection covers a broad range of diverse yet interrelated subjects. Among these subjects are: physics, which deals with individual atoms, forces of nature, and their interaction with each other; chemistry, which deals with specific properties of elements and compounds and their interaction with each other; astronomy, which deals with everything beyond the earth; earth sciences which deal with the solid earth, its atmosphere and water. The collection takes a slightly broader view of physical science and includes the environment, which could be considered a living system, and mathematics, which is necessary for the other areas, as well as the traditional areas.

**B. Collection purpose.** The main purposes of this collection are to support lifelong learning and support those doing basic research. Students from grade school through college use these materials, which are helpful for writing papers on a specific topic, simplifying a complex subject, or giving historical or theoretical background about a subject area. Many books in the collection have been written with the layperson in mind, explaining current scientific events in accessible terms.

**II. Collection scope.** The collection is quite broad, ranging from the very basic to the technical and theoretical, from basic addition to quantitative chemical analysis and quantum physics. The emphasis is on beginning and intermediate level materials. There are a few advanced works. The University Libraries would better serve users who need this level of materials. This is one of the few areas in the library's collections where textbooks are purchased to provide broad subject coverage and resource materials. There are also some popular works, but those are few and far between. Study manuals for science portions of exams (AP, SAT, GRE, etc.) can be found in this area.

**III. Audience.** This collection is used most by students, middle school through high school. Some people, such as hobbyists and amateur astronomers, browse in this section. Generally these subjects do not do as well on the new book shelf.

**IV. Size and Duplication.** There is greater breadth than depth and very little duplication in these areas. The number of circulations does not support multiple copies except for the infrequent best seller.

Turnover rate for the collection as a whole in FY06 was 2.25. This was an increase from 1.53 in 1999. Math was the highest at 3.6 and astronomy was the lowest at 1.8.

Although the collection is 3.3% of the adult non-fiction print collection it was only 2.3% of that collection's circulations.

The size of this collection has increased 4.2% since 1999.

--	--	--	--

Call Numbers	Subject	Titles*	Items*
304/333.7-333.9/363.7-363.9	Environment	491	506
500-509	Pure Sciences	430	463
510-519	Mathematics	390	441
520-529	Astronomy	434	463
530-539	Physics	325	340
540-549	Chemistry	126	131
550-559	Earth Sciences	393	406
*November 2006		<b>2589</b>	<b>2750</b>

**V. Selection Plan.** See "Introduction to Collection Plans for Adult Nonfiction" for general guidelines.

**A. Criteria:** The two most important criteria are accuracy and usefulness. These materials being used mainly for educational purposes, and they need to be both accurate and easy to use. Well-illustrated books are more frequently used than those that are not. For a lot of the sciences it is helpful to see examples of what is being written about, such as photos of the planets, or illustrations of chemical compounds. Hot topics, such as meteors hitting the earth, do come along occasionally and may merit extra copies or extra titles on a subject. Currency is not always an important factor, since most of the basics in each area are not changing over time. Algebra is the same now as it was ten years ago. However, a recent exception to this is Pluto's status as a planet.

**B. Tools:** The selector reads the standard selection journals in the "Introduction to Collection Plans for Adult Nonfiction." *Science Books & Films* is a selection tool that is specific to science materials. The selector also reads general science journals, like *Scientific American* and *Discover*, in order to remain current on events. There are also a number of periodicals specific to areas of this collection, such as *Sky and Telescope* and *Environment*. The public suggests very few titles for purchase.

**VI. Maintenance Criteria.** See "Introduction to Collection Plans for Adult Nonfiction" for general guidelines. Item purge is the primary method of withdrawing materials. Each item on the item purge list is inspected because even though it may not have circulated as well as desired, it still may be used. Some of the items are used in house just to look up a quick fact for a paper. Others that do not check out might be considered "classics." Materials that are damaged or deteriorating are withdrawn and subject replacements are sought if the withdrawn title is out of print. Better illustrated or easier-to-use titles may also be purchased as subject replacements.