Appendix SZE01

```
leader  03280nam a22003854i 4500
001     992580000000014492
005     20241001133257.0
006     m        d
007     cr#cn#---|||||
008     071011s2007    njua    ob    001 0 eng d
020     ##$a1-280-72149-9
020     ##$a9786610721498
020     ##$a0-470-06830-2
020     ##$a0-470-06832-9
035     ##$a(MiAaPQ)EBC281830
035     ##$a(PPN)174228252
040     ##$cCaOWtU $beng $erda $dCaOWtU
050     #4$aQC612.S4
082     00$a621.3815 $222
100     1#$aSze, S. M., $d1936- $eauthor.
245     10$aPhysics of semiconductor devices / $cS.M. Sze and Kwok K. Ng.
250     ##$aThird edition
260     ##$aHoboken, N.J. : $bWiley-Interscience, $c2007.
300     ##$a1 online resource (x, 815 pages) : $billlustrations
336     ##$atext $2rdacontent
337     ##$acomputer $2rdamedia
338     ##$aonline resource $2rdacarrier
504     ##$aIncludes bibliographical references and index.
505     0#$aPart I Semiconductor Physics -- Chapter 1 Physics and Properties of Semiconductors - A Review -- Part II Device Building Blocks -- Chapter 2 p-n Junctions --
520     ##$aThe third edition of the standard textbook and reference in the field of semiconductor devices. This classic book has set the standard for advanced study and
650     #0$aSemiconductors.
700     1#$aNg, Kwok Kwok, $d1952- $eauthor.
776     ##$z0-471-14323-5
906     ##$aBOOK
035     ##$a(CKB)2580000000014492
```

MULTIPLE VERSIONS

Physics of semiconductor devices

Sze, S. M., 1936- author.; Ng, Kwok Kwok, 1952- author.

Available at Engineering & Science Library STACKS (TK7871.85 .S988 2007) >

Available Online >

2 versions found. See all versions >

Chapters of this book (23) >

TOP
VIEW ONLINE
FIND IN LIBRARY
LINKS
DETAILS
SEND TO
VIRTUAL BROWSE

Find in Library

Please sign in to check if there are any request options. Sign in

BACK TO LOCATIONS

LOCATION ITEMS

Engineering & Science Library
Available , STACKS ; TK7871.85 .S988 2007
(1 copy, 1 available, 0 requests)

Item in place
Sign in for loan information

View Online

Full text availability

Wiley Online Library UBCM Perpetual Access Titles

Links

Report a Problem >

Signed in and still can't find what you're looking for? Let us know

Display source record >

Details

Title	Physics of semiconductor devices
Creator	Sze, S. M., 1936- author. > Ng, Kwok Kwok, 1952- author. >
Subject	Semiconductors >
Description	The third edition of the standard textbook and reference in the field of semiconductor devices. This classic book has set the standard for advanced study and reference in the semiconductor device field. Now completely updated and reorganized to reflect the tremendous advances in device concepts and performance, this third edition remains the most detailed and exhaustive single source of information on the most important semiconductor devices. It gives readers immediate access to detailed descriptions of the underlying physics and performance characteristics of all major bipolar, field-effect, microwave, photonic, and sensor devices. Designed for graduate textbook adoptions and reference needs, this new edition includes: A complete update of the latest developments; New devices such as three-dimensional MOSFETs, MODFETs, resonant-tunneling diodes, semiconductor sensors, quantum-cascade lasers, single-electron transistors, real-space transfer devices, and more; Materials completely reorganized; Problem sets at the end of each chapter; All figures reproduced at the highest quality. Physics of Semiconductor Devices, third edition offers engineers, research scientists, faculty, and students a practical basis for understanding the most important devices in use today and for evaluating future device performance and limitations. A Solutions Manual is available from the editorial department.
Contents	Part I Semiconductor Physics -- Chapter 1 Physics and Properties of Semiconductors - A Review -- Part II Device Building Blocks -- Chapter 2 p-n Junctions -- Chapter 3 Metal-Semiconductor Contacts -- Chapter 4 Metal-Insulator-Semiconductor Capacitors -- Part III Transistors -- Chapter 5 Bipolar Transistors -- Chapter 6 MOSFETs -- Chapter 7 JFETs, MESFETs, and MODFETs -- Part IV Negative-Resistance and Power Devices -- Chapter 8 Tunnel Devices -- Chapter 9 IMPATT Diodes -- Chapter 10 Transferred-Electron and Real-Space-Transfer Devices -- Chapter 11 Thyristors and Power Devices -- Part V Photonic Devices and Sensors -- Chapter 12 LEDs and Lasers -- Chapter 13 Photodetectors and Solar Cells -- Chapter 14 Sensors -- Appendixes -- Index.
Related titles	Available in other form: Link to related record >
Publisher	Hoboken, N.J. : Wiley-Interscience
Creation Date	2007

Edition	Third edition
Format	1 online resource (x, 815 pages) : illlustrations
Bibliography Note	Includes bibliographical references and index.
ISBN	1-280-72149-9 9786610721498 0-470-06830-2 0-470-06832-9
Source	Library Catalog

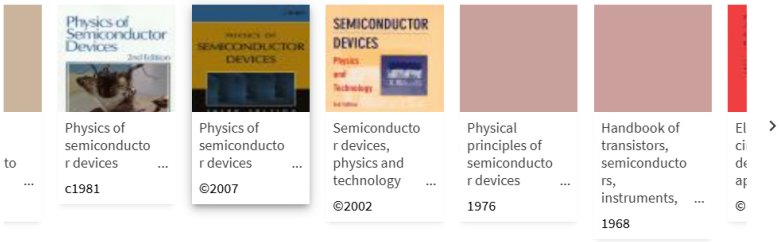
Send to

EXPORT TO EXCEL | PRINT | EMAIL | PERMALINK | QR | CITATION | EXPORT RIS | EXPORT BIBTEX | EASYBIB

https://cmu.primo.exlibrisgroup.com/permalink/01CMU_INST/smampf/alma991019521631904436

COPY THE PERMALINK TO CLIPBOARD

Virtual Browse



to ...

Physics of semiconductor devices ... c1981

Physics of semiconductor devices ... ©2007

Semiconductor devices, physics and technology ... ©2002

Physical principles of semiconductor devices ... 1976

Handbook of transistors, semiconductors, instruments, ... 1968

El ci de ap ©

Appendix HERITAGE01

```
LEADER 00000cam  2200000Ia 4500
001    701330646
003    OCoLC
005    20150415111552.0
008    110204s2011    mauab    d    000 0 eng
010    2011004777
020    9780547041018 (hardcover)
020    0547041012 (hardcover)
024 1  046442006613 (hardcover)
035    (OCoLC)701330646
040    DLC|beng|cDLC|dYDXCP|dIK2|dORX|dAFQ|dBWX|dWES|dCDX|dCPL
       |dUtOrBLW
042    pcc
049    CPLL
050 00 PE1628|b.A623 2011
082 00 423|222
245 04 The American Heritage dictionary of the English language.
246 30 Dictionary of the English language
250    5th ed.
260    Boston :|bHoughton Mifflin Harcourt,|c©2011.
300    xxvii, 2084 pages :|billustrations (some color), color
       maps ;|c29 cm
336    text|btxt|2rdacontent
337    unmediated|bn|2rdamedia
338    volume|bnc|2rdacarrier
500    Graphic of Indo-European family of languages on back
       lining papers.
650  0 English language|vDictionaries.
994    C0|bCPL
997    xadh
997    xajrc
```

LOCATION	CALL #	STATUS
Beechview (CLP) - Reference	rq PE1628.A623 2011	NONCIRCULATING
Brookline (CLP) - Non-Fiction Collection	rq PE1628.A623 2011	AVAILABLE
CLP Main (Oakland) Second Floor - Desk Reference	rq PE1628.A623 2011	NONCIRCULATING
CLP Main (Oakland) Second Floor - Room Reference	rq PE1628.A623 2011	NONCIRCULATING
East Liberty (CLP) - Reference	rq PE1628.A623 2011 NO REQUESTS	NONCIRCULATING
Hazelwood (CLP) - Reference	rq PE1628.A623 2011	NONCIRCULATING
Sheraden (CLP) - Reference	rq PE1628.A623 2011	NONCIRCULATING
South Side (CLP) - Reference	rq PE1628.A623 2011	MISSING
Upper St. Clair Reference	REF 423 AME	NONCIRCULATING

Title	**The American Heritage dictionary of the English language.**
Publisher	Boston : Houghton Mifflin Harcourt, ©2011.
Edition	5th ed.
Description	xxvii, 2084 pages : illustrations (some color), color maps ; 29 cm

LOCATION	CALL #		STATUS
Beechview (CLP) - Reference	rq PE1628.A623 2011		NONCIRCULATING
Brookline (CLP) - Non-Fiction Collection	rq PE1628.A623 2011		AVAILABLE
CLP Main (Oakland) Second Floor - Desk Reference	rq PE1628.A623 2011		NONCIRCULATING
CLP Main (Oakland) Second Floor - Room Reference	rq PE1628.A623 2011		NONCIRCULATING
East Liberty (CLP) - Reference	rq PE1628.A623 2011	NO REQUESTS	NONCIRCULATING
Hazelwood (CLP) - Reference	rq PE1628.A623 2011		NONCIRCULATING
Sheraden (CLP) - Reference	rq PE1628.A623 2011		NONCIRCULATING
South Side (CLP) - Reference	rq PE1628.A623 2011		MISSING
Upper St. Clair Reference	REF 423 AME		NONCIRCULATING

Details

Note	Graphic **of** Indo-European family **of** languages on back lining papers.
Subject	**English language** -- Dictionaries.
Alt Title	**Dictionary of the English language**
ISBN	9780547041018 (hardcover) 0547041012 (hardcover)

Appendix HERITAGE02

The American Heritage® Dictionary

of the English Language

FIFTH EDITION

Sandisk Technologies, Inc. - Ex. 1045, Page 000101

The

AMERICAN HERITAGE®

dictionary

of the

English Language

FIFTH

rq
PE
1628
.A623
2011

Sandisk Technologies, Inc. - Ex. 1045, Page 000102

CARNEGIE LIBRARY of PITTSBURGH
3 1812 04748 4069

Sandisk Technologies, Inc. - Ex. 1045, Page 000103

REFERENCE

Carnegie
Library of
Pittsburgh
Main

The American Heritage® dictionary of the English Language

FIFTH EDITION

rq PE1628.A623 2011
The American Heritage
dictionary of the English
language.
Boston : Houghton Mifflin
Harcourt, c2011.

Houghton Mifflin Harcourt
BOSTON NEW YORK

Sandisk Technologies, Inc. - Ex. 1045, Page 000105

The American Heritage® dictionary of the English Language

FIFTH EDITION

rq PE1628.A623 2011
The American Heritage dictionary of the English language.
Boston : Houghton Mifflin Harcourt, c2011.

Houghton Mifflin Harcourt
BOSTON NEW YORK

Sandisk Technologies, Inc. - Ex. 1045, Page 000106

Words are included in this dictionary on the basis of their usage. Words that are known to have current trademark registrations are shown with an initial capital and are also identified as trademarks. No investigation has been made of common-law trademark rights in any word, because such investigation is impracticable. The inclusion of any word in this dictionary is not, however, an expression of the publisher's opinion as to whether or not it is subject to proprietary rights. Indeed, no definition in this dictionary is to be regarded as affecting the validity of any trademark.

American Heritage and the eagle logo are registered trademarks of American Heritage Inc. Their use is pursuant to a license agreement with American Heritage Inc.

Copyright © 2011 by Houghton Mifflin Harcourt Publishing Company.
All rights reserved.

No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system without the prior written permission of Houghton Mifflin Harcourt unless such copying is expressly permitted by federal copyright law. Address inquiries to:
Reference Permissions, Houghton Mifflin Harcourt,
222 Berkeley Street, Boston, MA 02116.

Visit our website at www.ahdictionary.com
or www.youareyourwords.com.

Library of Congress Cataloging-in-Publication Data

The American Heritage dictionary of the English language. -- 5th ed.
p. cm.
Previous ed.: 2000.
ISBN 978-0-547-04101-8
1. English language--Dictionaries.
PE1628.A623 2011
423--dc22

2011004777

Manufactured in the United States of America

1 2 3 4 5 6 7 8 9 10–QGV–15 14 13 12 11

Sandisk Technologies, Inc. - Ex. 1045, Page 000107

scribed to Orpheus. **3.** Capable of casting a charm or spell; entrancing. **4.** often **orphic** Mystic or occult. [Greek *Orphikos* < *Orpheus*, Orpheus.] —**Or′phi•cal•ly** *adv.*

Or•phism (ôr′fĭz′əm) *n.* **1.** An ancient Greek mystery religion arising in the sixth century BC from a synthesis of pre-Hellenic beliefs with the Thracian cult of Zagreus and soon becoming mingled with the Eleusinian mysteries and the doctrines of Pythagoras. **2.** often **orphism** A short-lived movement in early 20th-century painting, derived from cubism but marked by a lyrical style and the use of bold color. [French *orphisme* < *Orphée*, Orpheus < Greek *Orpheus*.] —**Or′phist** *n.*

or•phrey (ôr′frē) also **-frays** *n., pl.* **-phreys** also **-frays** **1.** A band of elaborate embroidery decorating the front of certain ecclesiastical vestments. **2.** Elaborate embroidery, especially when made of gold. [Middle English *orfrey*, alteration of *orfreis* < Old French < Medieval Latin *aurifrigium* : Latin *aurum*, gold + Latin *Phrygius*, Phrygian.]

or•pi•ment (ôr′pə-mənt) *n.* Arsenic trisulfide, As_2S_3, a yellow mineral used as a pigment. [Middle English < Old French < Latin *auripigmentum* : *aurum*, gold + *pigmentum*, pigment; see PIGMENT.]

or•pine (ôr′pĭn) *n.* Any of various succulent plants of the family Crassulaceae, especially the Eurasian species *Hylotelephium telephium* syn. *Sedum telephium*, having clusters of reddish-purple flowers. Also called *live-forever*. [Middle English *orpin* < Old French < *orpiment*, orpiment; see ORPIMENT.]

Or•ping•ton (ôr′pĭng-tən) *n.* Any of a breed of large, heavily feathered domestic chickens having a single comb, originally bred in England for both meat and eggs. [After *Orpington*, a district of southeast England.]

Orr (ôr), **Robert Gordon** Known as "Bobby." Born 1948. Canadian-born hockey player. He led the National Hockey League in scoring in 1970 and 1975 and was the first defenseman to score more than 100 points in a season.

or•re•ry (ôr′ə-rē, ŏr′-) *n., pl.* **-ries** A mechanical model of the solar system or parts of it. [After Charles Boyle, Fourth Earl of *Orrery* (1676–1731), for whom one was made.]

or•ris (ôr′ĭs, ŏr′-) *n.* **1.** Any of several species of iris having a fragrant rootstock, especially *Iris pallida* and cultivars of the hybrid species *I. ×germanica*. **2.** The fragrant rootstock of an orris, used chiefly in perfumes. Also called *orrisroot*. [Probably alteration of Middle English *yreos* < Medieval Latin, alteration of Latin *īris*; see IRIS.]

or•ris•root (ôr′ĭs-ro͞ot′, -ro͝ot′, ŏr′-) *n.* See **orris** (sense 2).

ort (ôrt) *n.* **1.** often **orts** A small scrap or leaving of food after a meal is completed. **2.** A scrap; a bit. [Middle English *orte*, food left by animals, probably < Middle Dutch : *oor*, out; see **ud-** in App. I + *eten*, to eat; see **ed-** in App. I.]

Or•te•ga (ôr-tā′gə, -tē′gä), **Daniel** Born 1945. Nicaraguan revolutionary and politician. He was a leader of the Sandinistas, helped establish the Government of National Reconstruction after the overthrow of the Somoza regime (1979), and later served as president (1985–1990).

Ortega y Gas•set (ē gä-sĕt′), **José** 1883–1955. Spanish philosopher. His most famous work, *The Revolt of the Masses* (1930), argues that human beings are essentially unequal and that an intellectual elite is necessary.

or•thi•con (ôr′thĭ-kŏn′) *n.* An electron tube used in early video cameras to capture images by scanning a photoactive mosaic inside the camera with a low-velocity electron beam. Unlike the earlier iconoscope, it could capture images in low light. Also called *image orthicon*. [ORTH(O)– + ICON(OSCOPE).]

or•tho (ôr′thō) *adj.* Orthochromatic. [< ORTHO–.]

ortho– or **orth–** *pref.* **1.** Straight; upright; vertical: *orthotropous*. **2.** Perpendicular: *orthorhombic*. **3.** Correct; correction: *orthopsychiatry*. **4.** The most fully hydrated form of an acid or of its salts: *orthoboric acid*. **5.** Of or relating to one of three possible isomers of a benzene ring with two attached chemical groups in which the carbon atoms with attached groups are adjacent: *ortho-dibromobenzene*. [Middle English < Old French < Latin < Greek < *orthos*, straight, correct, right.]

or•tho•cen•ter (ôr′thō-sĕn′tər) *n.* The point of intersection of the three altitudes of a triangle.

or•tho•chro•mat•ic (ôr′thō-krō-măt′ĭk) *adj. Photography* **1.** Of, relating to, or accurately reproducing the colors of the subject. **2.** Sensitive to all colors except red: *orthochromatic film*. —**or′tho•chro′ma•tism** (-krō′mə-tĭz′əm) *n.*

or•tho•clase (ôr′thə-klās′, -klāz′) *n.* A white to yellowish red monoclinic mineral of the potassium feldspar group that forms from medium- to low-temperature magmas. [Greek *ortho-*, ortho- + Greek *klasis*, a breaking (< *klān*, to break).]

or•tho•clas•tic (ôr′thə-klăs′tĭk) *adj. Geology* Having right-angled cleavage.

or•tho•don•tia (ôr′thə-dŏn′shə) or **or•tho•don•ture** (-dŏn′chər) *n.* Orthodontics.

or•tho•don•tics (ôr′thə-dŏn′tĭks) *n. (used with a sing. verb)* The dental specialty dealing with correction of irregularities of the teeth, such as malocclusion, often by the use of braces. —**or′tho•don′tic** *adj.* —**or′tho•don′ti•cal•ly** *adv.* —**or′tho•don′tist** *n.*

or•tho•dox (ôr′thə-dŏks′) *adj.* **1.** Adhering to the accepted or traditional and established faith, especially in religion. **2.** Adhering to the Christian faith as expressed in the early Christian ecumenical creeds. **3.** **Orthodox** **a.** Of or relating to any of the churches or rites of the Eastern Orthodox Church. **b.** Of or relating to Orthodox Judaism. **4.** Adhering to what is commonly accepted, customary, or traditional: *an orthodox view of world affairs*. ❖ *n.* **1.** One that is orthodox. **2.** **Orthodox** A member of an Eastern Orthodox church. [Middle English *orthodoxe* < Old French < Late Latin *orthodoxus* < Late Greek *orthodoxos* : Greek *ortho-*, ortho- + Greek *doxa*, opinion (< *dokein*, to think; see **dek-** in App. I).] —**or′tho•dox′ly** *adv.*

Orthodox Church *n.* The Eastern Orthodox Church.

Orthodox Judaism *n.* The branch of Judaism that is governed by adherence to the Torah as interpreted in the Talmud.

orthodox sleep *n.* See **non-REM sleep.**

or•tho•dox•y (ôr′thə-dŏk′sē) *n., pl.* **-ies** **1.** The quality or state of being orthodox. **2.** Orthodox practice, custom, or belief. **3.** **Orthodoxy** **a.** The beliefs and practices of the Eastern Orthodox Church. **b.** Orthodox Judaism.

or•tho•e•pist (ôr-thŏ′ə-pĭst, ôr′thō-ĕp′ĭst) *n.* A specialist in orthoepy, especially one of a number of scholars of the 1500s and 1600s who proposed reforms of English spelling so that it would more systematically reflect pronunciation.

or•tho•e•py (ôr-thŏ′ə-pē, ôr′thō-ĕp′ē) *n.* **1a.** The study of the pronunciation of words. **b.** The study of the relationship between the pronunciation of words and their orthography. **2.** The customary pronunciation of words. [Greek *orthoepeia*, correctness of diction : *ortho-*, ortho- + *epos*, *epe-*, word; see **wek^{w}-** in App. I.] —**or′tho•ep′ic** (-ĕp′ĭk), **or′tho•ep′i•cal** (-ĕp′ĭ-kəl) *adj.*

or•tho•gen•e•sis (ôr′thō-jĕn′ĭ-sĭs) *n.* **1.** *Biology* The hypothesis, now largely discredited, that the evolution of species is linear and driven largely by internal factors rather than by natural selection. **2.** *Anthropology* The hypothesis that all cultures evolve in a linear manner from primitivism to civilization. —**or′tho•ge•net′ic** (-jə-nĕt′ĭk) *adj.* —**or′tho•ge•net′i•cal•ly** *adv.*

or•thog•o•nal (ôr-thŏg′ə-nəl) *adj.* **1.** Relating to or composed of right angles. **2.** *Mathematics* **a.** Of or relating to a matrix whose transpose equals its inverse. **b.** Of or relating to a linear transformation that preserves the length of vectors. **3.** Very different or unrelated; sharply divergent: *"Radical Islamists are ultimately seeking to create something orthogonal to our model of democracy"* (Richard A. Clarke). [< Greek *orthogōnios* : *ortho-*, ortho- + *gōniā*, angle; see **genu-^{1}** in App. I.] —**or•thog′o•nal′i•ty** (-năl′ĭ-tē) *n.* —**or•thog′o•nal•ly** *adv.*

orthogonal projection *n.* The two-dimensional graphic representation of an object formed by the perpendicular intersections of lines drawn from points on the object to a plane of projection. Also called *orthographic projection*.

or•tho•grade (ôr′thə-grād′) *adj.* Walking with the long axis of the body perpendicular to the ground, as humans do. [ORTHO– + Latin *-gradus*, walking (< *gradī*, to move; see RETROGRADE).]

or•tho•graph•ic (ôr′thə-grăf′ĭk) also **or•tho•graph•i•cal** (-ĭ-kəl) *adj.* **1.** Of or relating to orthography. **2.** Spelled correctly. **3.** *Mathematics* Having perpendicular lines. —**or′tho•graph′i•cal•ly** *adv.*

or•thog•ra•phy (ôr-thŏg′rə-fē) *n., pl.* **-phies** **1.** The art or study of correct spelling according to established usage. **2.** The aspect of language study concerned with letters and their sequences in words. —**or•thog′ra•pher, or•thog′ra•phist** *n.*

or•tho•log or **or•tho•logue** (ôr′thə-lôg′, -lŏg′) *n.* A homologous gene that is related to those in different organisms by descent from the DNA of a common ancestor and that may or may not have the same function. [Back-formation < *orthologous* : ORTHO– + (HOMO)LOGOUS.] —**or•thol′o•gous** (-thŏl′ə-gəs) *adj.*

or•tho•mo•lec•u•lar (ôr′thō-mə-lĕk′yə-lər) *adj.* Of, relating to, or being a theory holding that mental diseases or abnormalities result from various chemical imbalances or deficiencies and can be cured by restoring proper levels of chemical substances, such as vitamins and minerals, in the body.

or•tho•myx•o•vi•rus (ôr′thō-mĭk′sə-vī′rəs) *n., pl.* **-rus•es** Any of a family of single-stranded RNA viruses, including the virus that causes influenza. [ORTHO–, correct (< the fact that the viruses cause influenza, in contrast to the paramyxoviruses causing parainfluenza) + MYXOVIRUS.]

or•tho•pe•dics also **or•tho•pae•dics** (ôr′thə-pē′dĭks) *n. (used with a sing. verb)* The branch of medicine that deals with the prevention or correction of injuries or disorders of the skeletal system and associated muscles, joints, and ligaments. [< *orthopedic* < French *orthopédique* < *orthopédie*, orthopedic surgery : Greek *ortho-*, ortho- + Greek *paideia*, child-rearing (< *pais*, *paid-*, child; see **pau-^{1}** in App. I).] —**or′tho•pe′dic** *adj.* —**or′tho•pe′di•cal•ly** *adv.* —**or′tho•pe′dist** *n.*

or•tho•psy•chi•a•try (ôr′thō-sī-kī′ə-trē, -sī-) *n.* The psychiatric study, treatment, and prevention of emotional and behavioral problems, especially of those that arise during early development. —**or′tho•psy′chi•at′ric** (-sī′kē-ăt′rĭk), **or′tho•psy′chi•at′ri•cal** (-rĭ-kəl) *adj.* —**or′tho•psy•chi′a•trist** *n.*

or•thop•ter•an (ôr-thŏp′tər-ən) *n.* Any of numerous insects of the order Orthoptera, having mouthparts that are adapted for chewing, usually two pairs of wings with thickened front wings and folded hind wings, and often enlarged hind legs. Orthopterans include the grasshoppers, crickets, and katydids. [< New Latin *Orthoptera*, order name : Greek *ortho-*, ortho- + Greek *ptera*, neuter pl. of *pteron*, wing; see **pet-** in App. I.] —**or•thop′ter•an, or•thop′ter•ous** *adj.*

or•thop•tics (ôr-thŏp′tĭks) *n. (used with a sing. verb)* The evaluation and nonsurgical treatment of visual disorders caused by imbalance of the eye muscles, such as strabismus. —**or•thop′tic** *adj.* —**or•thop′tist** *n.*

or•tho•py•rox•ene (ôr′thə-pī-rŏk′sēn′) *n.* Any of a number of varieties of pyroxene that crystallize in the orthorhombic system and contain no calcium and little or no aluminum.

or•tho•rhom•bic (ôr′thō-rŏm′bĭk) *adj.* Of or relating to a crystalline structure of three mutually perpendicular axes of different length.

or•tho•scop•ic (ôr′thə-skŏp′ĭk) *adj.* **1.** Having normal vision; free from visual distortion. **2.** Giving an undistorted image. Used of an optical instrument.

orphrey
the early 15th-century Erpingham chasuble, of Italian silk with an English orphrey

orrery

ă	pat	oi	boy
ā	pay	ou	out
âr	care	o͝o	took
ä	father	o͝or	lure
ĕ	pet	o͞o	boot
ē	be	û	cut
ĭ	pit	ûr	urge
ī	bite	th	thin
ir	pier	*th*	this
ŏ	pot	zh	vision
ō	toe	ə	about,
ô	paw		item
ôr	core		

Stress marks: ′ (primary); ″ (secondary), as in **dictionary** (dĭk′shə-nĕr′ē)

Sandisk Technologies, Inc. - Ex. 1045, Page 000108

per·me·ance (pûr′mē-əns) *n.* A measure of the ability of a magnetic circuit to conduct magnetic flux; the reciprocal of reluctance. [< Latin *permeāre*, to penetrate; see PERMEATE.]

per·me·ase (pûr′mē-ās′) *n.* Any of several cell-membrane proteins that function as channels for the transport of a specific molecule in or out of the cell. [PERME(ATE) + -ASE.]

per·me·ate (pûr′mē-āt′) *v.* **-at·ed, -at·ing, -ates** *—tr.* **1.** To pass through the openings or interstices of: *liquid permeating a membrane.* **2.** To spread or flow throughout; pervade: *"Our thinking is permeated by our historical myths"* (Freeman J. Dyson). See Synonyms at **imbue.** *—intr.* To spread through or penetrate something. [Latin *permeāre, permeāt-*, to penetrate : *per-*, through; see PER- + *meāre*, to pass; see **mei-**[1] in App. I.] **—per′me·ant** (-ənt), **per′me·a′tive** (-ā′tĭv) *adj.* **—per′me·a′tion** *n.*

per·meth·rin (pər-mĕth′rĭn) *n.* A topical insecticide, $C_{21}H_{20}Cl_2O_3$, used to treat head lice and nits, scabies, and various species of ticks. [PER- + *(res)methrin*, a pyrethroid (*resm-*, of unknown origin + (PYR)ETHRIN).]

Per·mi·an (pûr′mē-ən, pĕr′-) *adj.* Of, relating to, or being the period of geologic time from about 299 to 251 million years ago, the seventh and last period of the Paleozoic Era. The Permian Period is characterized by the formation of the supercontinent Pangaea, the first modern conifers, and the diversification of reptiles. It ended with the largest known mass extinction in the history of life. See table at **geologic time.** ❖ *n.* The Permian Period. [After *Perm* Oblast, a region of west-central Russia.]

per mil also **per mill** *adv.* Per thousand. [PER + *mil* (short for Latin *mille*, thousand; see **gheslo-** in App. I).]

per·min·er·al·i·za·tion (pûr-mĭn′ər-ə-lĭ-zā′shən) *n.* The formation of a fossil from the remains of an organism by the replacement of its tissues by minerals. **—per·min′er·al·ize′** *v.*

per·mis·si·ble (pər-mĭs′ə-bəl) *adj.* Permitted; allowable: *permissible tax deductions; permissible behavior in school.* **—per·mis′si·bil′i·ty, per·mis′si·ble·ness** *n.* **—per·mis′si·bly** *adv.*

per·mis·sion (pər-mĭsh′ən) *n.* **1.** The act of permitting, especially in giving formal consent; authorization: *Do they have permission to leave?* **2.** An authorization to do something, as to quote from a book under copyright. [Middle English < Old French < Latin *permissiō, permissiōn-* < *permissus*, past participle of *permittere*, to permit; see PERMIT[1].]

SYNONYMS *permission, authorization, consent, leave, license, sanction* These nouns denote approval for a course of action that an authority has granted: *was refused permission to smoke; seeking authorization to begin construction; gave their consent to the marriage; will ask leave to respond to the speaker; was given license to depart; gave sanction to the project.*
ANTONYM *prohibition*

per·mis·sive (pər-mĭs′ĭv) *adj.* **1a.** Granting or inclined to grant permission; tolerant or lenient: *permissive parents.* **b.** Characterized by freedom of personal behavior or a disregard of traditional social mores. **2.** Permitted or optional: *permissive uses of funds.* **3.** *Biology* Supporting viral replication. Used of a cell. **—per·mis′sive·ly** *adv.* **—per·mis′sive·ness** *n.*

per·mit[1] (pər-mĭt′) *v.* **-mit·ted, -mit·ting, -mits** *—tr.* **1.** To allow the doing of (something); consent to: *permit the sale of alcoholic beverages.* **2.** To grant consent or leave to (someone); authorize: *permitted him to explain.* **3.** To afford opportunity or possibility for: *weather that permits sailing. —intr.* To afford opportunity; allow: *if circumstances permit.* ❖ *n.* (pûr′mĭt, pər-mĭt′) A document or certificate giving permission to do something: *a building permit.* [Middle English *permitten* < Latin *permittere* : *per-*, through; see PER- + *mittere*, to let go.] **—per′mit·tee′** (pûr′mĭ-tē′) *n.* **—per·mit′ter** *n.*

per·mit[2] (pûr′mĭt, pər-mĭt′) *n.* A carangid fish *(Trachinotus falcatus)* of the western Atlantic Ocean, having a laterally compressed silvery body and a deeply forked tail and valued as a food and game fish. [Alteration of Spanish *palometa*, a species of pompano *(Trachinotus ovatus)*, any of several other species of fish, probably ultimately < Doric Greek **pālamus, pālamud-*, variant of Greek *pēlamus, pēlamud-*, young tuna, tuna in its first year, of unknown origin.]

per·mit·tiv·i·ty (pûr′mĭ-tĭv′ĭ-tē) *n., pl.* **-ties** A measure of the ability of a material to interact with an electric field and become polarized by the field, so that the field within the material is weaker than the field in the absence of the material. The permittivity of a material is the product of the dielectric constant of the material and the permittivity of a perfect vacuum, which is defined to be about 8.854×10^{-12} farad per meter.

per·mu·ta·tion (pûr′myōō-tā′shən) *n.* **1a.** The process of altering the order of a given set of objects in a group. **b.** The result of such a process; a rearrangement or recombination of elements: *permutations of gene order.* **c.** *Mathematics* A rearrangement of the elements of a set. **2.** A complete change; a transformation: *the country's permutation into a modern democracy.* **—per′mu·ta′tion·al** *adj.*

per·mute (pər-myōōt′) *tr.v.* **-mut·ed, -mut·ing, -mutes 1.** To change the order of. **2.** *Mathematics* To subject to permutation. [Middle English *permuten* < Old French *permuter* < Latin *permūtāre* : *per-*, per- + *mūtāre*, to change; see **mei-**[1] in App. I.] **—per·mut′a·bil′i·ty** *n.* **—per·mut′a·ble** *adj.* **—per·mut′a·bly** *adv.*

per·ni·cious (pər-nĭsh′əs) *adj.* **1.** Tending to cause death or serious injury; deadly: *a pernicious virus.* **2.** Causing great harm; destructive: *pernicious rumors.* [Middle English < Old French *pernicios* < Latin *perniciōsus* < *perniciēs*, destruction : *per-*, per- + *nex, nec-*, violent death; see **nek-**[1] in App. I.] **—per·ni′cious·ly** *adv.* **—per·ni′cious·ness** *n.*

pernicious anemia *n.* A severe anemia most often affecting older adults, caused by failure of the stomach to absorb vitamin B_{12} and marked by a decrease in number and an increase in the size of red blood cells, by gastrointestinal disturbances, and by lesions of the spinal cord.

per·nick·e·ty (pər-nĭk′ĭ-tē) *adj.* Persnickety. [Origin unknown.]

Pe·rón (pə-rōn′, pĕ-), **Juan Domingo** 1895–1974. Argentine soldier and president (1946–1955 and 1973–1974). His second wife, **(Maria) Eva Duarte de Perón** (1919–1952), known as "Evita," was popular for her charitable works. Perón was succeeded in office by his third wife, **Maria Estela Martínez de Perón** (born 1931), known as "Isabelita," who was ousted by the military in 1976.

per·o·ne·al (pĕr′ə-nē′əl) *adj.* Of or relating to the fibula or to the outer portion of the leg. [< Greek *peronē*, pin of a brooch, fibula; see **per-**[2] in App. I.]

per·o·ral (pər-ôr′əl) *adj.* Through or by way of the mouth: *a peroral infection; peroral administration of fluids.* **—per·o′ral·ly** *adv.*

per·o·rate (pĕr′ə-rāt′) *intr.v.* **-rat·ed, -rat·ing, -rates 1.** To conclude a speech with a formal recapitulation. **2.** To speak at great length, often in a grandiloquent manner; declaim. [Latin *perōrāre, perōrāt-* : *per-*, per- + *ōrāre*, to speak.] **—per′o·ra′tion** *n.* **—per′o·ra′tion·al** *adj.*

pe·rovsk·ite (pə-rôvz′kīt′, -rōfs′-) *n.* **1.** A relatively rare yellow, brown, or black mineral, $CaTiO_3$, sometimes also containing rare-earth elements, such as lanthanum. **2.** Any of various oxides having a crystal structure similar to that of this mineral and that can be found in many superconducting ceramic materials and in electrodes in fuel cells. [After Count Lev Alekseyevich *Perovski* (1792–1856), Russian mineralogist.]

per·ox·i·dase (pə-rŏk′sĭ-dās′, -dāz′) *n.* Any of a group of enzymes that occur especially in plant cells and catalyze the oxidation of a substance by a peroxide.

per·ox·ide (pə-rŏk′sīd′) *n.* **1.** The divalent O_2 group, or a compound containing this group, such as sodium peroxide, Na_2O_2, used as an oxidizing agent or bleach. **2.** Hydrogen peroxide. ❖ *tr.v.* **-id·ed, -id·ing, -ides 1.** To treat with peroxide. **2.** To bleach (hair) with hydrogen peroxide. **—per·ox′ide′** *adj.* **—per′ox·id′ic** (pûr′ŏk-sĭd′ĭk) *adj.*

per·ox·i·some (pə-rŏk′sĭ-sōm′) *n.* A cell organelle containing enzymes, such as catalase and oxidase, that catalyze the production and breakdown of hydrogen peroxide. [PEROXI(DE) + -SOME[3].] **—per·ox′i·som′al** (-sō′məl) *adj.*

peroxy– *pref.* Containing the bivalent group O_2: *peroxyacetyl nitrate.* [PER- + OXY-.]

per·ox·y·a·cet·yl nitrate (pər-ŏk′sē-ə-sē′tl) *n. Abbr.* **PAN** A toxic organic compound, $C_2H_3NO_5$, formed photochemically in smog, causing eye irritation and damage to vegetation. Due to the stability of this compound, it may be transported in air over long distances before breaking down into smaller reactive compounds.

perp (pûrp) *n. Slang* One who perpetrates or is accused of perpetrating a crime.

perp. *abbr.* perpendicular

per·pend (pər-pĕnd′) *v.* **-pend·ed, -pend·ing, -pends** *Archaic —tr.* To consider carefully; ponder. *—intr.* To be attentive; reflect. [Latin *perpendere* : *per-*, per- + *pendere*, to weigh; see **(s)pen-** in App. I.]

per·pen·dic·u·lar (pûr′pən-dĭk′yə-lər) *adj.* **1.** *Mathematics* Intersecting at or forming right angles. **2.** Being at right angles to the horizontal; vertical. See Synonyms at **vertical. 3.** often **Perpendicular** Of or relating to a style of English Gothic architecture of the 1300s and 1400s, characterized by emphasis of the vertical element. ❖ *adv.* In a perpendicular position. ❖ *n.* **1.** *Mathematics* A line or plane perpendicular to a given line or plane. **2.** A perpendicular position. **3.** A device, such as a plumb line, that is used in marking the vertical from a given point. **4.** A vertical or nearly vertical line or plane. [Middle English *perpendiculer* < Old French < Latin *perpendiculāris* < *perpendiculum*, plumb line < *perpendere*, to weigh carefully : *per-*, per- + *pendere*, to weigh; see **(s)pen-** in App. I.] **—per′pen·dic′u·lar′i·ty** (-lăr′ĭ-tē) *n.* **—per′pen·dic′u·lar·ly** *adv.*

per·pe·trate (pûr′pĭ-trāt′) *tr.v.* **-trat·ed, -trat·ing, -trates** To be responsible for; commit: *perpetrate a crime; perpetrate a practical joke.* [Latin *perpetrāre, perpetrāt-*, to accomplish : *per-*, per- + *patrāre*, to bring about (< *pater*, father; see **pəter-** in App. I).] **—per′pe·tra′tion** *n.* **—per′pe·tra′tor** *n.*

per·pet·u·al (pər-pĕch′o͞o-əl) *adj.* **1.** Lasting forever; never-ending: *conceived heaven as a state of perpetual bliss.* **2.** Continuing or being so for an indefinitely long time: *found themselves in perpetual debt; felt like a perpetual outsider.* See Synonyms at **continual. 3.** Flowering throughout the growing season. [Middle English *perpetuel* < Old French < Latin *perpetuālis* < *perpetuus*, continuous : *per-*, per- + *petere*, to go toward; see **pet-** in App. I.] **—per·pet′u·al·ly** *adv.*

perpetual calendar *n.* A chart or mechanical device that indicates the day of the week corresponding to any given date over a period of many years.

perpetual motion *n.* The hypothetical continuous operation of an isolated mechanical device or other closed system without a sustaining energy source.

per·pet·u·ate (pər-pĕch′o͞o-āt′) *tr.v.* **-at·ed, -at·ing, -ates 1.** To cause to continue indefinitely; make perpetual. **2.** To prolong the existence of; cause to be remembered: *The new library will perpetuate its founder's great love of learning.* [Latin *perpetuāre, perpetuāt-* < *perpetuus*, continuous; see PERPETUAL.] **—per·pet′u·ance, per·pet′u·a′tion** *n.* **—per·pet′u·a′tor** *n.*

per·pe·tu·i·ty (pûr′pĭ-to͞o′ĭ-tē, -tyo͞o′-) *n., pl.* **-ties 1.** The quality or condition of being perpetual: *"The perpetuity of the Church was an article of faith"* (Morris L. West). **2.** Time without end; eternity. **3.** *Law* **a.** The condition of an estate that is limited so as to be inalienable either perpetually or longer than the period determined by law. **b.** An estate so

ă	pat	oi	boy
ā	pay	ou	out
âr	care	o͝o	took
ä	father	o͝or	lure
ĕ	pet	o͞o	boot
ē	be	ŭ	cut
ĭ	pit	ûr	urge
ī	bite	th	thin
îr	pier	*th*	this
ŏ	pot	zh	vision
ō	toe	ə	about,
ô	paw		item
ôr	core		

Stress marks: ′ (primary); ″ (secondary), as in **dictionary** (dĭk′shə-nĕr′ē)

Sandisk Technologies, Inc. - Ex. 1045, Page 000109

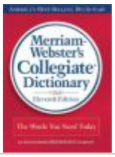
Appendix MERRIAM01

```
LEADER 00000nam  22000008a 4500
003    DLC
005    20150414183135.0
008    030219s2003    maua     d    001 0 eng
010    2003003674
020    9780877798088 (Jacketed hardcover unindexed)
020    0877798087 (Jacketed hardcover unindexed)
020    9780877798095 (Jacketed hardcover with CD-ROM)
020    0877798095 (Jacketed hardcover with CD-ROM)
020    0877798079 (Laminated unindexed)
020    0877798109 (Leatherlook  with CD-ROM)
040    DLC|cDLC|dCPL|dUtOrBLW
050 00 PE1628|b.M36 2003
082 00 423|221
245 00 Merriam-Webster's collegiate dictionary.
246 30 Collegiate dictionary
250    Eleventh ed.
260    Springfield, Mass. :|bMerriam-Webster, Inc.,|c2003.
300    39, 1623 pages :|billustrations ;|c26 cm
336    text|btxt|2rdacontent
337    unmediated|bn|2rdamedia
338    volume|bnc|2rdacarrier
500    Includes index.
650  0 English language|vDictionaries.
710 2  Merriam-Webster, Inc.
947    CPLN 07/25/03
997    sald
997    xarlk
```

View additional copies or search for a specific volume/copy

LOCATION	CALL #	STATUS
Allegheny (CLP) - Reference	r PE1628.M36 2003	Checked Out
Beechview (CLP) - Reference	r PE1628.M36 2003	AVAILABLE
Bethel Park Reference	INFO DESK	NONCIRCULATING
Bethel Park Reference	r 423 ME	NONCIRCULATING
Brentwood Nonfiction	423 Merriam-Webster	AVAILABLE
Brookline (CLP) - Reference	r PE1628.M36 2003	AVAILABLE
Carrick (CLP) - Reference	r PE1628.M36 2003	AVAILABLE
CLP Main (Oakland) First Floor - Room Use Reference	r PE1628.M36 2003	NONCIRCULATING
CLP Main (Oakland) Second Floor - Closed Reference (Please ask for assistance)	r PE1628.M36 2003	AVAILABLE
CLP Main (Oakland) Second Floor - Non-fiction	PE1628.M36 2003	AVAILABLE

Title	**Merriam-Webster's collegiate dictionary.**
Publisher	Springfield, Mass. : **Merriam-Webster**, Inc., 2003.
Edition	Eleventh ed.
Description	39, 1623 pages : illustrations ; 26 cm



LOCATION	CALL #	STATUS
Allegheny (CLP) - Reference	r PE1628.M36 2003	Checked Out
Beechview (CLP) - Reference	r PE1628.M36 2003	AVAILABLE
Bethel Park Reference	INFO DESK	NONCIRCULATING
Bethel Park Reference	r 423 ME	NONCIRCULATING
Brentwood Nonfiction	423 Merriam-Webster	AVAILABLE
Brookline (CLP) - Reference	r PE1628.M36 2003	AVAILABLE
Carrick (CLP) - Reference	r PE1628.M36 2003	AVAILABLE
CLP Main (Oakland) First Floor - Room Use Reference	r PE1628.M36 2003	NONCIRCULATING
CLP Main (Oakland) Second Floor - Closed Reference (Please ask for assistance)	r PE1628.M36 2003	AVAILABLE
CLP Main (Oakland) Second Floor - Non-fiction	PE1628.M36 2003	AVAILABLE

View additional copies or search for a specific volume/copy

Details

Note	Includes index.
Subject	English language -- Dictionaries.
Addt'l Author	**Merriam-Webster**, Inc.
Alt Title	**Collegiate dictionary**
ISBN	9780877798088 (Jacketed hardcover unindexed) 0877798087 (Jacketed hardcover unindexed) 9780877798095 (Jacketed hardcover with CD-ROM) 0877798095 (Jacketed hardcover with CD-ROM) 0877798079 (Laminated unindexed) 0877798109 (Leatherlook with CD-ROM)

Appendix MERRIAM02

AMERICA'S BEST-SELLING DICTIONARY

Merriam-Webster's Collegiate® Dictionary

Eleventh Edition

The Words You Need Today

AN ENCYCLOPÆDIA BRITANNICA® COMPANY

Sandisk Technologies, Inc. - Ex. 1045, Page 000114

Sandisk Technologies, Inc. - Ex. 1045, Page 000115

AMERICA'S LEADING REFERENCE BRAND

CARNEGIE LIBRARY OF PITTSBURGH
3 1812 03585 0842

Merriam-Webster's Collegiate® Dictionary, 11th Edition

NEW EDITION—COMPLETELY REVISED AND UPDATED

THE MOST UP-TO-DATE DICTIONARY AVAILABLE

- 10,000 new words and senses from all fields of knowledge
- 165,000 entries and 225,000 definitions
- Detailed symbols show most-common pronunciations and acceptable variants

THE FEATURES YOU NEED

- More than 40,000 usage examples—the most in any desk dictionary
- Coverage of 7,500 phrases and idioms clarifies meanings and illustrates common use
- More than 700 illustrations and diagrams and dozens of informative tables

EXPERT WORD GUIDANCE

- Synonym paragraphs explain different shades of meaning between words
- Usage paragraphs provide guidelines for words with confused or disputed usage
- A Handbook of Style offers essential information to improve writing skills

Merriam-Webster Inc.
An Encyclopædia Britannica Company
Springfield, MA 01102
www.Merriam-Webster.com • www.Merriam-WebsterCollegiate.com
www.Merriam-WebsterUnabridged.com

ISBN 0-87779-808-7

UPC 0 81413 00808 1

EAN 9 780877 798088

Sandisk Technologies, Inc. - Ex. 1045, Page 000116

Purchased from the

ADELINE MACRUM BANK

MEMORIAL FUND

REFERENCE

Carnegie
Library of
Pittsburgh

Main

Sandisk Technologies, Inc. - Ex. 1045, Page 000117

Merriam-Webster's Collegiate® Dictionary

ELEVENTH EDITION

r PE1628.M36 2003
Merriam-Webster's collegiate dictionary.
Springfield, Mass. :
Merriam-Webster, Inc., 2003.

Merriam-Webster, Incorporated
Springfield, Massachusetts, U.S.A.

Sandisk Technologies, Inc. - Ex. 1045, Page 000118

Merriam-Webster's Collegiate® Dictionary

ELEVENTH EDITION

r PE1628.M36 2003
Merriam-Webster's collegiate dictionary.
Springfield, Mass. :
Merriam-Webster, Inc., 2003.

Merriam-Webster, Incorporated
Springfield, Massachusetts, U.S.A.

Sandisk Technologies, Inc. - Ex. 1045, Page 000119

A GENUINE MERRIAM-WEBSTER

The name *Webster* alone is no guarantee of excellence. It is used by a number of publishers and may serve mainly to mislead an unwary buyer.

Merriam-Webster™ is the name you should look for when you consider the purchase of dictionaries or other fine reference books. It carries the reputation of a company that has been publishing since 1831 and is your assurance of quality and authority.

Copyright © 2005 by Merriam-Webster, Incorporated

Library of Congress Cataloging in Publication Data

Merriam-Webster's collegiate dictionary. — Eleventh ed.
p. cm.
Includes index.
ISBN-13: 978-0-87779-807-1 (Laminated unindexed : alk. paper)
ISBN-10: 0-87779-807-9 (Laminated unindexed : alk. paper)
ISBN-13: 978-0-87779-808-8 (Jacketed hardcover unindexed : alk. paper)
ISBN-10: 0-87779-808-7 (Jacketed hardcover unindexed : alk. paper)
ISBN-13: 978-0-87779-809-5 (Jacketed hardcover with CD-ROM : alk. paper)
ISBN-10: 0-87779-809-5 (Jacketed hardcover with CD-ROM : alk. paper)
ISBN-13: 978-0-87779-810-1 (Leatherlook with CD-ROM : alk. paper)
ISBN-10: 0-87779-810-9 (Leatherlook with CD-ROM : alk. paper)
ISBN-13: 978-0-87779-813-2 (Canadian)
ISBN-10: 0-87779-813-3 (Canadian)
ISBN-13: 978-0-87779-814-9 (International)
ISBN-10: 0-87779-814-1 (International)
1. English language—Dictionaries. I. Title: Collegiate dictionary. II. Merriam-Webster, Inc.
PE1628.M36 2003
423—dc21 2003003674
CIP

Merriam-Webster's Collegiate® Dictionary, Eleventh Edition, principal copyright 2003

COLLEGIATE is a registered trademark of Merriam-Webster, Incorporated

All rights reserved. No part of this book covered by the copyrights hereon may be reproduced or copied in any form or by any means—graphic, electronic, or mechanical, including photocopying, taping, or information storage and retrieval systems—without written permission of the publisher.

Made in the United States of America

567TT:QWV0504

Sandisk Technologies, Inc. - Ex. 1045, Page 000120

adorns **3** : one whose virtues or graces add luster to a place or society **4** : the act of adorning or being adorned **5** : an embellishing note not belonging to the essential harmony or melody — called also *embellishment, fioritura*

²or·na·ment \-ˌment\ *vt* (1656) : to provide with ornament : EMBELLISH
syn see ADORN

¹or·na·men·tal \ˌȯr-nə-ˈmen-tᵊl\ *adj* (1646) : of, relating to, or serving as ornament; *specif* : grown as an ornamental — **or·na·men·tal·ly** \-tᵊl-ē\ *adv*

²ornamental *n* (1650) : a decorative object; *esp* : a plant cultivated for its beauty rather than for use

or·na·men·ta·tion \ˌȯr-nə-mən-ˈtā-shən, -ˌmen-\ *n* (1706) **1** : something that ornaments : EMBELLISHMENT **2** : the act or process of ornamenting : the state of being ornamented

or·nate \ȯr-ˈnāt\ *adj* [ME *ornat*, fr. L *ornatus*, pp. of *ornare* to furnish, embellish; akin to L *ordo* order — more at ORDER] (15c) **1** : marked by elaborate rhetoric or florid style **2** : elaborately or excessively decorated ⟨an ~ mantle⟩ — **or·nate·ly** *adv* — **or·nate·ness** *n*

or·nery \ˈȯr-nə-rē, ˈär-; ˈȯrn-rē, ˈärn-\ *adj* **or·ner·i·er; -est** [alter. of *ordinary*] (1816) : having an irritable disposition : CANTANKEROUS — **or·ner·i·ness** *n*

ornith- *or* **ornitho-** *comb form* [L, fr. Gk, fr. *ornith-, ornis* — more at ERNE] : bird ⟨*ornitho*logy⟩

or·nith·ic \ȯr-ˈni-thik\ *adj* [Gk *ornithikos*, fr. *ornith-, ornis*] (1854) : of, relating to, or characteristic of birds

or·ni·thine \ˈȯr-nə-ˌthēn\ *n* [ISV *ornith*uric acid (a compound of which ornithine is a component, found in the urine of birds) + ²*-ine*] (1881) : a crystalline amino acid $C_5H_{12}N_2O_2$ that functions esp. in urea production as a carrier by undergoing conversion to citrulline and then arginine in reaction with ammonia and carbon dioxide followed by recovery along with urea by enzymatic hydrolysis of arginine

or·nith·is·chi·an \ˌȯr-nə-ˈthis-kē-ən\ *n* [NL *Ornithischia*, fr. *ornith-* + *ischium*] (1933) : any of an order (Ornithischia) of herbivorous dinosaurs (as a stegosaurus) that have the pubis of the pelvis rotated backward to a position parallel and close to the ischium — compare SAURISCHIAN — **ornithischian** *adj*

or·ni·thol·o·gy \ˌȯr-nə-ˈthä-lə-jē\ *n, pl* **-gies** [NL *ornithologia*, fr. *ornith-* + *-logia* -logy] (1676) **1** : a treatise on ornithology **2** : a branch of zoology dealing with birds — **or·ni·tho·log·i·cal** \-thə-ˈlä-ji-kəl\ *also* **or·ni·tho·log·ic** \-jik\ *adj* — **or·ni·tho·log·i·cal·ly** \-ji-k(ə-)lē\ *adv* — **or·ni·thol·o·gist** \-ˈthä-lə-jist\ *n*

or·nith·o·pod \ȯr-ˈni-thə-ˌpäd, ˈȯr-ni-thə-\ *n* [ultim. fr. Gk *ornith-* + *pod-, pous* foot — more at FOOT] (ca. 1889) : any of a suborder (Ornithopoda) of bipedal ornithischian dinosaurs (as a hadrosaur) with digitigrade walking limbs usu. having only three functional toes

or·ni·thop·ter \ˈȯr-nə-ˌthäp-tər\ *n* [ISV *ornith-* + *-pter* (as in *helicopter*)] (1908) : an aircraft designed to derive its chief support and propulsion from flapping wings

or·ni·tho·sis \ˌȯr-nə-ˈthō-səs\ *n, pl* **-tho·ses** \-ˌsēz\ [NL] (1939) : PSITTACOSIS

¹oro- *comb form* [Gk *oros* — more at ORIENT] : mountain ⟨*oro*graphy⟩

²oro- *comb form* [L *or-, os* — more at ORAL] : mouth ⟨*oro*pharynx⟩

oro·gen·e·sis \ˌȯr-ə-ˈje-nə-səs\ *n* [NL] (1886) : OROGENY — **oro·ge·net·ic** \-jə-ˈne-tik\ *adj*

orog·e·ny \ȯ-ˈrä-jə-nē\ *n* [ISV] (1890) : the process of mountain formation esp. by folding of the earth's crust — **oro·gen·ic** \ˌȯr-ə-ˈje-nik\ *adj*

oro·graph·ic \ˌȯr-ə-ˈgra-fik\ *also* **oro·graph·i·cal** \-fi-kəl\ *adj* (ca. 1803) : of or relating to mountains; *esp* : associated with or induced by the presence of mountains ⟨~ rainfall⟩

orog·ra·phy \ȯ-ˈrä-grə-fē\ *n* [ISV] (ca. 1846) : a branch of physical geography that deals with mountains

Oro·mo \ȯ-ˈrō-(ˌ)mō, ô-\ *n, pl* **Oromos** *or* **Oromo** [Oromo (western dial.) *oromoo*, a self-designation, prob. fr. obs. pl. of *orma* person, stranger] (1893) **1** : a member of a Cushitic-speaking people of southern Ethiopia and adjacent parts of Kenya **2** : the Cushitic language of the Oromo

oro·pha·ryn·geal \ˌȯr-ə-ˌfa-rən-ˈjē-əl, -fə-ˈrin-j(ē-)əl\ *adj* (1885) **1** : of or relating to the oropharynx **2** : of or relating to the mouth and pharynx

oro·phar·ynx \-ˈfa-riŋ(k)s\ *n* (1887) : the part of the pharynx that is below the soft palate and above the epiglottis and is continuous with the mouth

oro·tund \ˈȯr-ə-ˌtənd, ˈär-\ *adj* [modif. of L *ore rotundo*, lit., with round mouth] (ca. 1799) **1** : marked by fullness, strength, and clarity of sound : SONOROUS ⟨an ~ voice⟩ **2** : POMPOUS, BOMBASTIC ⟨an ~ speech⟩ — **oro·tun·di·ty** \ˌȯr-ə-ˈtən-də-tē, ˌär-\ *n*

¹or·phan \ˈȯr-fən\ *n* [ME, fr. LL *orphanus*, fr. Gk *orphanos*; akin to OHG *erbi* inheritance, L *orbus* orphaned] (15c) **1** : a child deprived by death of one or usu. both parents **2** : a young animal that has lost its mother **3** : one deprived of some protection or advantage ⟨~s of the storm⟩ — **orphan** *adj* — **or·phan·hood** \-ˌhůd\ *n*

²orphan *vt* **or·phaned; or·phan·ing** \ˈȯr-fə-niŋ, ˈȯrf-niŋ\ (1814) : to cause to become an orphan

or·phan·age \ˈȯr-fə-nij, ˈȯrf-nij\ *n* (ca. 1580) **1** : the state of being an orphan **2** : an institution for the care of orphans

orphan drug *n* (1981) : a drug that is not developed or marketed because its extremely limited use makes it unprofitable

orphan's court *n* (1713) : a probate court with jurisdiction in some states over the affairs of minors and the administration of estates

Or·pheus \ˈȯr-ˌfyüs, -fē-əs\ *n* [L, fr. Gk] (14c) : a poet and musician in Greek mythology who almost rescues his wife Eurydice from Hades by charming Pluto and Persephone with his lyre

or·phic \ˈȯr-fik\ *adj* (1655) **1** *cap* : of or relating to Orpheus or the rites or doctrines ascribed to him **2** : MYSTIC, ORACULAR **3** : FASCINATING, ENTRANCING — **or·phi·cal·ly** \-fi-k(ə-)lē\ *adv*

Or·phism \ˈȯr-ˌfi-zəm\ *n* [*Orpheus*, its reputed founder] (1880) : a mystic Greek religion offering initiates purification of the soul from innate evil and release from the cycle of reincarnation

or·phrey \ˈȯr-frē\ *n, pl* **orphreys** [ME *orfrey*, fr. AF *orfreis*, fr. ML *aurifrigium*, fr. L *aurum* gold + *Phrygius* Phrygian — more at AUREUS] (13c) **1 a** : elaborate embroidery **b** : a piece of such embroidery **2** : an ornamental border or band esp. on an ecclesiastical vestment

or·pi·ment \ˈȯr-pə-mənt\ *n* [ME, fr. AF, fr. L *auripigmentum*, fr. *aurum* + *pigmentum* pigment] (14c) : a rare orange to lemon-yellow mineral consisting of a native trisulfide of arsenic

or·pine \ˈȯr-pən\ *n* [ME *orpin*, fr. AF, fr. *orpiment*] (14c) : an herb (*Sedum telephium* of the family Crassulaceae, the orpine family) that has fleshy leaves and pink or purple flowers and was formerly used in folk medicine; *broadly* : SEDUM

Or·ping·ton \ˈȯr-piŋ-tən\ *n* [*Orpington*, England] (1897) : any of an English breed of large deep-chested domestic chickens

or·rery \ˈȯr-ər-ē, ˈär-\ *n, pl* **or·rer·ies** [Charles Boyle †1731 4th Earl of *Orrery*] (1713) : an apparatus showing the relative positions and motions of bodies in the solar system by balls moved by a clockwork

or·ris \ˈȯr-əs, ˈär-\ *n* [prob. alter. of ME *ireos*, fr. ML, alter. of L *iris* iris] (1545) : ORRISROOT

or·ris·root \-ˌrüt, -ˌrůt\ *n* (1598) : the fragrant rootstock of any of three European irises (*Iris florentina, I. germanica*, and *I. pallida*) used esp. in perfumery

ort \ȯrt\ *n* [ME, fr. MLG *orte*] (15c) : a morsel left at a meal : SCRAP

orth- *or* **ortho-** *comb form* [Gk, fr. *orthos* straight, right, true; akin to Skt *ūrdhva* high, upright] **1** : straight : upright : vertical ⟨*ortho*grade⟩ **2** : perpendicular ⟨*ortho*rhombic⟩ **3** : correct : corrective ⟨*ortho*dontia⟩ **4 a** : hydrated or hydroxylated to the highest degree ⟨*ortho*phosphoric acid⟩ **b** : involving substitution at or characterized by or having the relationship of two neighboring positions in the benzene ring ⟨*ortho*-xylene⟩

or·thi·con \ˈȯr-thi-ˌkän\ *n* [ISV *orth-* + *icon*oscope] (1939) : a camera tube similar to but more sensitive than an iconoscope in which the charges are scanned by a low-velocity beam

or·tho \ˈȯr-(ˌ)thō\ *adj* (1904) : ORTHOCHROMATIC

or·tho·cen·ter \ˈȯr-thə-ˌsen-tər\ *n* [ISV] (1869) : the common intersection of the three altitudes of a triangle or their extensions or of the several altitudes of a polyhedron provided these latter exist and meet in a point

or·tho·chro·mat·ic \ˌȯr-thə-krō-ˈma-tik\ *adj* [ISV] (1887) **1** : of, relating to, or producing tone values of light and shade in a photograph that correspond to the tones in nature **2** : sensitive to all colors except red

or·tho·clase \ˈȯr-thə-ˌklās, -ˌklāz\ *n* [G *Orthoklas*, fr. *orth-* + Gk *klasis* breaking, fr. *klan* to break — more at CLAST] (1849) : a monoclinic mineral of the feldspar group consisting of a silicate of potassium and aluminum

or·tho·don·tia \ˌȯr-thə-ˈdän(t)-shē(-ə)\ *n* [NL] (ca. 1849) : ORTHODONTICS

or·tho·don·tics \-ˈdän-tiks\ *n pl but sing in constr* (1909) : a branch of dentistry dealing with irregularities of the teeth (as malocclusion) and their correction (as by means of braces) — **or·tho·don·tic** \-tik\ *adj* — **or·tho·don·ti·cal·ly** \-ti-k(ə-)lē\ *adv* — **or·tho·don·tist** \-ˈdän-tist\ *n*

¹or·tho·dox \ˈȯr-thə-ˌdäks\ *adj* [ME *orthodoxe*, fr. MF or LL; MF *orthodoxe*, fr. LL *orthodoxus*, fr. Gk *orth-* + *doxa* opinion — more at DOXOLOGY] (15c) **1 a** : conforming to established doctrine esp. in religion **b** : CONVENTIONAL **2** *cap* : of, relating to, or constituting any of various conservative religious or political groups; as **a** : EASTERN ORTHODOX **b** : of or relating to Orthodox Judaism — **or·tho·dox·ly** *adv*

²orthodox *n, pl* **orthodox** *also* **or·tho·dox·es** (1587) **1** : one that is orthodox **2** *cap* : a member of an Eastern Orthodox church

Orthodox Judaism *n* (1904) : Judaism that adheres to the Torah and Talmud as interpreted in an authoritative rabbinic law code and applies their principles and regulations to modern living — compare CONSERVATIVE JUDAISM, REFORM JUDAISM

or·tho·doxy \ˈȯr-thə-ˌdäk-sē\ *n, pl* **-dox·ies** (1630) **1** : the quality or state of being orthodox **2** : an orthodox belief or practice **3** *cap* **a** : Eastern Orthodox Christianity **b** : ORTHODOX JUDAISM

or·tho·epy \ˈȯr-thə-ˌwe-pē, ȯr-ˈthō-ə-pē\ *n* [NL *orthoepia*, fr. Gk *orthoepeia*, fr. *orth-* + *epos* word — more at VOICE] (1668) **1** : the customary pronunciation of a language **2** : the study of the pronunciation of a language — **or·tho·ep·ic** \ˌȯr-thə-ˈwe-pik\ *adj* — **or·tho·ep·i·cal·ly** \-pi-k(ə-)lē\ *adv* — **or·tho·epist** \ˈȯr-thə-ˌwe-pist, ȯr-ˈthō-ə-pist\ *n*

or·tho·gen·e·sis \ˌȯr-thə-ˈje-nə-səs\ *n* [NL] (1895) : variation of organisms in successive generations that in some esp. former evolutionary theories takes place in some predestined direction resulting in progressive evolutionary trends independent of external factors — **or·tho·ge·net·ic** \-jə-ˈne-tik\ *adj* — **or·tho·ge·net·i·cal·ly** \-ti-k(ə-)lē\ *adv*

or·thog·o·nal \ȯr-ˈthä-gə-nᵊl\ *adj* [MF, fr. L *orthogonius*, fr. Gk *orthogōnios*, fr. *orth-* + *gōnia* angle — more at -GON] (1612) **1 a** : intersecting or lying at right angles **b** : having perpendicular slopes or tangents at the point of intersection ⟨~ curves⟩ **2** : having a sum of products or an integral that is zero or sometimes one under specified conditions: as **a** *of real-valued functions* : having the integral of the product of each pair of functions over a specific interval equal to zero **b** *of vectors* : having the scalar product equal to zero **c** *of a square matrix* : having the sum of products of corresponding elements in any two rows or any two columns equal to one if the rows or columns are the same and equal to zero otherwise : having a transpose with which the product equals the identity matrix **3** *of a linear transformation* : having a matrix that is orthogonal : preserving length and distance **4** : composed of mutually orthogonal elements ⟨an ~ basis of a vector space⟩ **5** : statistically independent — **or·thog·o·nal·i·ty** \-thä-gə-ˈna-lə-tē\ *n* — **or·thog·o·nal·ly** \-ˈthä-gə-nᵊl-ē\ *adv*

or·thog·o·nal·ize \ȯr-ˈthä-gə-nə-ˌlīz\ *vt* **-ized; -iz·ing** (1930) : to make orthogonal — **or·thog·o·nal·i·za·tion** \-ˌthä-gə-nə-lə-ˈzā-shən\ *n*

or·tho·grade \ˈȯr-thə-ˌgrād\ *adj* (1902) : walking with the body upright or vertical

or·tho·graph·ic \ˌȯr-thə-ˈgra-fik\ *also* **or·tho·graph·i·cal** \-fi-kəl\ *adj* (1706) **1** : of, relating to, being, or prepared by orthographic projection ⟨an ~ map⟩ **2 a** : of or relating to orthography **b** : correct in spelling — **or·tho·graph·i·cal·ly** \-fi-k(ə-)lē\ *adv*

orthographic projection *n* (1668) **1** : projection of a single view of an object (as a view of the front) onto a drawing surface in which the lines of projection are perpendicular to the drawing surface **2** : the representation of related views of an object as if they were all in the same plane and projected by orthographic projection

or·thog·ra·phy \ȯr-ˈthä-grə-fē\ *n* [ME *ortografie*, fr. AF, fr. L *orthographia*, fr. Gk, fr. *orth-* + *graphein* to write — more at CARVE] (15c)

Sandisk Technologies, Inc. - Ex. 1045, Page 000121

…me-abil-i-ty \ˌpər-mē-ə-ˈbi-lə-tē\ *n* (1759) **1** : the quality or state of being permeable **2** : the property of a magnetizable substance that determines the degree in which it modifies the magnetic flux in the region occupied by it in a magnetic field

…me-able \ˈpər-mē-ə-bəl\ *adj* (15c) : capable of being permeated ‹PENETRABLE; *esp* : having pores or openings that permit liquids or gases to pass through ‹a ~ membrane› ‹~ limestone›

…me-ase \ˈpər-mē-ˌās, -ˌāz\ *n* [ISV *perme-* (fr. *permeate*) + *-ase*] (1937) : a substance that catalyzes the transport of another substance across a cell membrane

…me-ate \ˈpər-mē-ˌāt\ *vb* **-at·ed; -at·ing** [L *permeatus*, pp. of *permeare*, fr. *per-* through + *meare* to go, pass; akin to MW *mynet* to go, *myned* fr. *per-* through + *meare* to go, pass; akin to MW *mynet* to go, *myned* to pass] *vi* (1656) : to diffuse through or penetrate something ‹~ *vt* **1** : to spread or diffuse through the pores or interstices of — **per-** ‹tobacco smoke› **2** : to pass through the pores or interstices of — **per-**

…me-ative \-ˌā-tiv\ *adj*

…me-ation \ˌpər-mē-ˈā-shən\ *n* (ca. 1623) **1** : the quality or state of being permeated **2** : the action or process of permeating

…men-sem \(ˌ)pər-ˈmen(t)-səm\ *adv* [ML] (1647) : by the month

…meth-rin \(ˌ)pər-ˈme-thrən\ *n* [*per-* + *methyl* + *pyrethrin*] (1976) : a synthetic pyrethroid $C_{21}H_{20}Cl_2O_3$ used esp. as an insecticide

…m-ian \ˈpər-mē-ən, ˈper-\ *adj* [*Perm*, former province in eastern Russia] (1841) : of, relating to, or being the last period of the Paleozoic era or the corresponding system of rocks — see GEOLOGIC TIME table

Permian *n*

per mille \(ˌ)pər-ˈmil\ *adv* [*per* + L *mille* thousand] (1721) : per thousand

per-mil-lage \(ˌ)pər-ˈmi-lij\ *n*

…mis-si-ble \pər-ˈmi-sə-bəl\ *adj* [ME, fr. ML *permissibilis*, fr. L *permissus*, pp. of *permittere*] (15c) : that may be permitted : ALLOWABLE

per·mis·si·bil·i·ty \-ˌmi-sə-ˈbi-lə-tē\ *n* — **per·mis·si·ble·ness** \-bəl-nəs\ *n* — **per·mis·si·bly** \-blē\ *adv*

…mis-sion \pər-ˈmi-shən\ *n* [ME, fr. AF, fr. L *permission-*, *permissio*, fr. *permittere*] (15c) **1** : the act of permitting **2** : formal consent : AUTHORIZATION

…mis-sive \pər-ˈmi-siv\ *adj* [ME *permyssyf*, fr. MF *permissif*, fr. L *permissus*] (15c) **1** *archaic* : granted on sufferance : TOLERATED **2 a** : granting or tending to grant permission : TOLERANT **b** : deficient in firmness or control : INDULGENT, LAX **3** : allowing discretion : OPTIONAL ‹reduced the ~ retirement age from 65 to 62› — **per·mis·sive·ly** *adv* — **per·mis·sive·ness** *n*

…mit \pər-ˈmit\ *vb* **per·mit·ted; per·mit·ting** [ME *permitten*, fr. L *permittere* to let through, permit, fr. *per-* through + *mittere* to let go, send] (15c) **1** : to consent to expressly or formally ‹~ access to records› **2** : to give leave : AUTHORIZE **3** : to make possible ‹the design ~s easy access› ~ *vi* : to give an opportunity : ALLOW ‹if time ~s› — **per·mit·tee** \pər-ˌmi(t)-ˈtē, ˌpər-mi(t)-\ *n* — **per·mit·ter** *n*

…mit \ˈpər-ˌmit, pər-ˈ\ *n* (1682) **1** : a written warrant or license issued by one having authority ‹a gun ~› **2** : PERMISSION

…mit \ˈpər-ˌmit, pər-ˈ\ *n* [perh. by folk etymology fr. Sp *palometa*, a kind of pompano, fr. dim. of *paloma* dove, fr. L *palumba*, *palumbes* — more at PALOMINO] (ca. 1945) : either of two pompanos (*Trachinotus falcatus* and *T. goodei*) that are important game fishes of temperate to tropical waters of the western Atlantic

…mit-tiv-i-ty \ˌpər-ˌmi-ˈti-və-tē, -mə-\ *n* [ˈ*permit* + *-ivity* (as in *selectivity*) (1887)] : the ability of a material to store electrical potential energy under the influence of an electric field measured by the ratio of the capacitance of a capacitor with the material as dielectric to its capacitance with vacuum as dielectric — called also *dielectric constant*

…mu-ta-tion \ˌpər-myü-ˈtā-shən\ *n* [ME *permutacioun* exchange, transformation, fr. AF, fr. L *permutation-*, *permutatio*, fr. *permutare*] (15c) **1** : often major or fundamental change (as in character or condition) based primarily on rearrangement of existent elements ‹the system has gone through several ~s› ; *also* : a form or variety resulting from such change ‹technology available in various ~s› **2 a** : the act or process of changing the lineal order of an ordered set of objects **b** : an ordered arrangement of a set of objects — **per·mu·ta·tion·al** \-shə-nᵊl\ *adj*

permutation group *n* (1904) : a group whose elements are permutations and in which the product of two permutations is a permutation whose effect is the same as the successive application of the first two

…mute \pər-ˈmyüt\ *vt* **per·mut·ed; per·mut·ing** [ME, to exchange, fr. AF or L; AF *permuter*, fr. L *permutare*, fr. *per-* + *mutare* to change — more at MUTABLE] (1878) : to change the order or arrangement of; specif : to arrange in all possible ways — **per·mut·able** \-ˈmyü-tə-bəl\ *adj*

…ni-cious \pər-ˈni-shəs\ *adj* [ME, fr. AF, fr. L *perniciosus*, fr. *pernicies* destruction, fr. *per-* + *nec-*, *nex* violent death — more at NOXIOUS] (15c) **1** : highly injurious or destructive : DEADLY **2** *archaic* : WICKED — **per·ni·cious·ly** *adv* — **per·ni·cious·ness** *n*

SYN PERNICIOUS, BANEFUL, NOXIOUS, DELETERIOUS, DETRIMENTAL mean exceedingly harmful. PERNICIOUS implies irreparable harm done through evil or insidious corrupting or undermining ‹the claim that pornography has a *pernicious* effect on society›. BANEFUL implies injury through poisoning or destroying ‹the *baneful* notion that discipline destroys creativity›. NOXIOUS applies to what is both offensive and injurious to the health of a body or mind ‹*noxious* chemical fumes›. DELETERIOUS applies to what has an often unsuspected harmful effect ‹a diet found to have *deleterious* effects›. DETRIMENTAL implies obvious harmfulness to something specified ‹the *detrimental* effects of excessive drinking›.

…ious anemia *n* (1874) : a severe megaloblastic anemia that is caused by a progressive decrease in the number of red blood cells and color, weakness, and gastrointestinal and nervous disturbances and is caused by malabsorption of vitamin B_{12} due to the absence of intrinsic factor

…nick-e-ty \pər-ˈni-kə-tē\ *adj* [origin unknown] (ca. 1818) *chiefly dial* : PERSNICKETY

…nod \per-ˈnō, ˌpər-\ *trademark* — used for a French liqueur

…ne-al \ˌper-ō-ˈnē-əl, pə-ˈrō-nē-\ *adj* [NL *peroneus*, fr. *perone* fibula, fr. Gk *peronē*, lit., pin, fr. *peirein* to pierce — more at DIAPIR] (1831) : relating to, or located near the fibula

…ne-al \ˌpar-ˈōr-əl, per-, -ˈär-\ *adj* [ISV] (1908) : occurring through the wall of the mouth — **per·oral·ly** \-ə-lē\ *adv*

…ne-rate \ˈper-ə-ˌrāt *also* ˈpər-\ *vi* **-rat·ed; -rat·ing** [L *peroratus*, pp. of *perorare* to speak — more at PER-, ORATION] (1603) **1** : to deliver a long or grandiloquent oration **2** : to make a peroration

per·o·ra·tion \ˌper-ə-ˈrā-shən *also* ˌpər-\ *n* [ME *peroracyon*, fr. L *peroration-*, *peroratio*, fr. *perorare*] (15c) **1** : the concluding part of a discourse and esp. an oration **2** : a highly rhetorical speech — **per·o·ra·tion·al** \ˌper-ə-ˈrā-shnəl, ˌpər-, -shə-nᵊl\ *adj*

pe·rov·skite \pə-ˈrāv-ˌskīt, -ˈräf-\ *n* [G *Perowskit*, fr. Count L. A. *Perovskiĭ* †1856 Russ. statesman] (1840) : a yellow, brown, or grayish-black mineral consisting of an oxide of calcium and titanium and sometimes containing rare earth elements

per·ox·i·dase \pə-ˈräk-sə-ˌdās, -ˌdāz\ *n* (1900) : an enzyme that catalyzes the oxidation of various substances by peroxides

per·ox·i·da·tion \pə-ˌräk-sə-ˈdā-shən\ *n* (1839) : oxidation to the greatest possible extent resulting esp. in formation of a peroxide

[1]**per·ox·ide** \pə-ˈräk-ˌsīd\ *n* (1804) : a compound (as hydrogen peroxide) in which oxygen is visualized as joined to oxygen — **per·ox·id·ic** \-ˌräk-ˈsi-dik\ *adj*

[2]**peroxide** *vt* **-id·ed; -id·ing** (1906) : to treat with a peroxide; *esp* : to bleach (hair) with hydrogen peroxide

[3]**peroxide** *adj* (1920) : having or being bleached hair ‹a ~ blonde›

per·ox·i·some \pə-ˈräk-sə-ˌsōm\ *n* [*peroxide* + [3]*-some*] (1965) : a cytoplasmic cell organelle containing enzymes (as catalase) which act in oxidative reactions and esp. in the production and decomposition of hydrogen peroxide — **per·ox·i·som·al** \-ˌräk-sə-ˈsō-məl\ *adj*

peroxy- *comb form* [ISV *per-* + *oxy*] : containing the divalent group O–O ‹*peroxy*acetyl nitrate›

per·oxy·ace·tyl nitrate \pə-ˌräk-sē-ə-ˈsē-tᵊl-; -ˈa-sə-tᵊl-, -ˌtēl-\ *n* (1963) : a toxic compound $C_2H_3O_5N$ found esp. in smog

[1]**perp** \ˈpərp\ *n* (1981) : a perpetrator esp. of a crime

[2]**perp** *abbr* perpendicular

per·pend \(ˌ)pər-ˈpend\ *vb* [ME, fr. L *perpendere*, fr. *per-* thoroughly + *pendere* to weigh — more at PER-, PENDANT] *vt* (15c) : to reflect on carefully : PONDER ~ *vi* : to be attentive : REFLECT

[1]**per·pen·dic·u·lar** \ˌpər-pən-ˈdi-kyə-lər\ *adj* [ME *perpendiculer*, fr. MF, fr. L *perpendicularis*, fr. *perpendiculum* plumb line, fr. *per-* + *pendēre* to hang — more at PENDANT] (14c) **1 a** : standing at right angles to the plane of the horizon : exactly upright **b** : being at right angles to a given line or plane **2** : extremely steep : PRECIPITOUS **3** *often cap* : of or relating to a medieval English Gothic style of architecture in which vertical lines predominate **4** : relating to, uniting, or consisting of individuals of dissimilar type or on different levels SYN see VERTICAL — **per·pen·dic·u·lar·i·ty** \-ˌdi-kyə-ˈla-rə-tē\ *n* — **per·pen·dic·u·lar·ly** \-ˈdi-kyə-lər-lē\ *adv*

[2]**perpendicular** *n* (1571) : a line at right angles to a line or plane (as of the horizon)

per·pe·trate \ˈpər-pə-ˌtrāt\ *vt* **-trat·ed; -trat·ing** [L *perpetratus*, pp. of *perpetrare*, fr. *per-* through + *patrare* to accomplish, fr. *pater* father — more at FATHER] (1537) **1** : to bring about or carry out (as a crime or deception) : COMMIT **2** : to produce, perform, or execute (something likened to a crime) ‹~ a pun› — **per·pe·tra·tion** \ˌpər-pə-ˈtrā-shən\ *n* — **per·pe·tra·tor** \ˈpər-pə-ˌtrā-tər\ *n*

per·pet·u·al \pər-ˈpe-chə-wəl, -chəl; -ˈpech-wəl\ *adj* [ME *perpetuel*, fr. AF, fr. L *perpetuus* uninterrupted, fr. *per-* through + *petere* to go — more at FEATHER] (14c) **1 a** : continuing forever : EVERLASTING ‹~ motion› **b** (1) : valid for all time ‹a ~ right› (2) : holding (as an office) for life or for an unlimited time **2** : occurring continually : indefinitely long-continued ‹~ problems› **3** : blooming continuously throughout the season SYN see CONTINUAL — **per·pet·u·al·ly** *adv*

perpetual calendar *n* (1895) : a table for finding the day of the week for any one of a wide range of dates

perpetual check *n* (ca. 1909) : an endless succession of checks to which an opponent's king may be subjected to force a draw in chess

per·pet·u·ate \pər-ˈpe-chə-ˌwāt\ *vt* **-at·ed; -at·ing** [L *perpetuatus*, pp. of *perpetuare*, fr. *perpetuus*] (1530) : to make perpetual or cause to last indefinitely ‹~ the species› — **per·pet·u·a·tion** \-ˌpe-chə-ˈwā-shən\ *n* — **per·pet·u·a·tor** \-ˈpe-chə-ˌwā-tər\ *n*

per·pe·tu·i·ty \ˌpər-pə-ˈtü-ə-tē, -ˈtyü-\ *n, pl* **-ties** [ME *perpetuite*, fr. AF *perpetuité*, fr. L *perpetuitat-*, *perpetuitas*, fr. *perpetuus*] (15c) **1** : ETERNITY 2 **2** : the quality or state of being perpetual ‹bequeathed to them in ~› **3 a** : the condition of an estate limited so that it will not take effect or vest within the period fixed by law **b** : an estate so limited **4** : an annuity payable forever

per·phe·na·zine \(ˌ)pər-ˈfē-nə-ˌzēn, -ˈfe-\ *n* [blend of *piperazine* and *phen-*] (1957) : a phenothiazine tranquilizer $C_{21}H_{26}ClN_3OS$ that is used esp. to control psychotic symptoms (as anxiety and agitation)

per·plex \pər-ˈpleks\ *vt* [obs. *perplex*, adj., involved, perplexed, fr. L *perplexus*, fr. *per-* thoroughly + *plexus* involved, fr. pp. of *plectere* to braid, twine — more at PER-, PLY] (1593) **1** : to make unable to grasp something clearly or to think logically and decisively about something ‹her attitude ~*es* me› ‹a ~*ing* problem› **2** : to make intricate or involved : COMPLICATE SYN see PUZZLE

per·plexed \-ˈplekst\ *adj* (15c) **1** : filled with uncertainty : PUZZLED **2** : full of difficulty — **per·plexed·ly** \-ˈplek-səd-lē, -ˈplekst-lē\ *adv*

per·plex·i·ty \pər-ˈplek-sə-tē\ *n, pl* **-ties** [ME *perplexite*, fr. MF *perplexité*, fr. LL *perplexitat-*, *perplexitas*, fr. L *perplexus*] (14c) **1** : the state of being perplexed : BEWILDERMENT **2** : something that perplexes **3** : ENTANGLEMENT

per·qui·site \ˈpər-kwə-zət\ *n* [ME, property acquired by means other than inheritance, fr. AF *perquisit*, ML *perquisitum*, fr. neut. of *perquisitus*, pp. of *perquirere* to purchase, acquire, fr. L, to search for thoroughly, fr. *per-* thoroughly + *quaerere* to seek] (15c) **1** : a privilege, gain, or profit incidental to regular salary or wages; *esp* : one expected or promised **2** : GRATUITY, TIP **3** : something held or claimed as an exclusive right or possession

per·ron \ˈper-ən, pe-rōⁿ\ *n* [F, fr. OF, fr. *perre*, *pierre* rock, stone, fr. L *petra*, fr. Gk] (1723) : an outdoor stairway leading up to a building entrance; *also* : a platform at its top

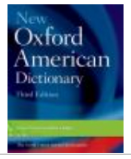
Sandisk Technologies, Inc. - Ex. 1045, Page 000122

Appendix OXFORD01

```
LEADER 00000cam  2200000 a 4500
001    614990378
003    OCoLC
005    20150415231844.0
008    100513s2010    enkab    d    000 0 eng
010    2010020033
019    612335856
020    9780195392883
020    0195392884
035    (OCoLC)614990378|z(OCoLC)612335856
040    DLC|cDLC|dYDXCP|dC#P|dBWX|dCDX|dVP@|dCPL|dUtOrBLW
043    n-us---
049    CPLL
050 00 PE1628|b.N429 2010
082 00 423|222
245 00 New Oxford American dictionary.
250    3rd ed. /|bedited by Angus Stevenson, Christine A.
       Lindberg.
260    Oxford ;|aNew York :|bOxford University Press,|c2010.
300    xxvi, 2018 pages :|billustrations, maps ;|c29 cm
336    text|btxt|2rdacontent
337    unmediated|bn|2rdamedia
338    volume|bnc|2rdacarrier
650  0 English language|zUnited States|vDictionaries.
650  0 Americanisms|vDictionaries.
700 1  Stevenson, Angus.
700 1  Lindberg, Christine A.,|d1954-
994    C0|bCPL
997    8pjom
997    xarlk
```

LOCATION	CALL #	STATUS
CLP Main (Oakland) Second Floor - Closed Reference (Please ask for assistance)	rq PE1628.N429 2010	NONCIRCULATING
Cooper-Siegel Reference	REF 423 NEW 3rd ed.	AVAILABLE
Mt Lebanon Reference	r 423 New	NONCIRCULATING
Sewickley Reference	R 423 NEW 2010	NONCIRCULATING
Upper St. Clair Reference Desk	REF 423 NEW	NONCIRCULATING
Whitehall Adult Nonfiction	NF 423 Ox2a	AVAILABLE

Title	**New Oxford American dictionary.**
Publisher	**Oxford** ; **New** York : **Oxford** University Press, 2010.
Edition	3rd ed. / edited by Angus Stevenson, Christine A. Lindberg.
Description	xxvi, 2018 pages : illustrations, maps ; 29 cm



LOCATION	CALL #	STATUS
CLP Main (Oakland) Second Floor - Closed Reference (Please ask for assistance)	rq PE1628.N429 2010	NONCIRCULATING
Cooper-Siegel Reference	REF 423 NEW 3rd ed.	AVAILABLE
Mt Lebanon Reference	r 423 New	NONCIRCULATING
Sewickley Reference	R 423 NEW 2010	NONCIRCULATING
Upper St. Clair Reference Desk	REF 423 NEW	NONCIRCULATING
Whitehall Adult Nonfiction	NF 423 Ox2a	AVAILABLE

Details

Subject	English language -- United States -- Dictionaries. Americanisms -- Dictionaries.
Addt'l Author	Stevenson, Angus. Lindberg, Christine A., 1954-
ISBN	9780195392883 0195392884

Appendix OXFORD02

New Oxford American Dictionary

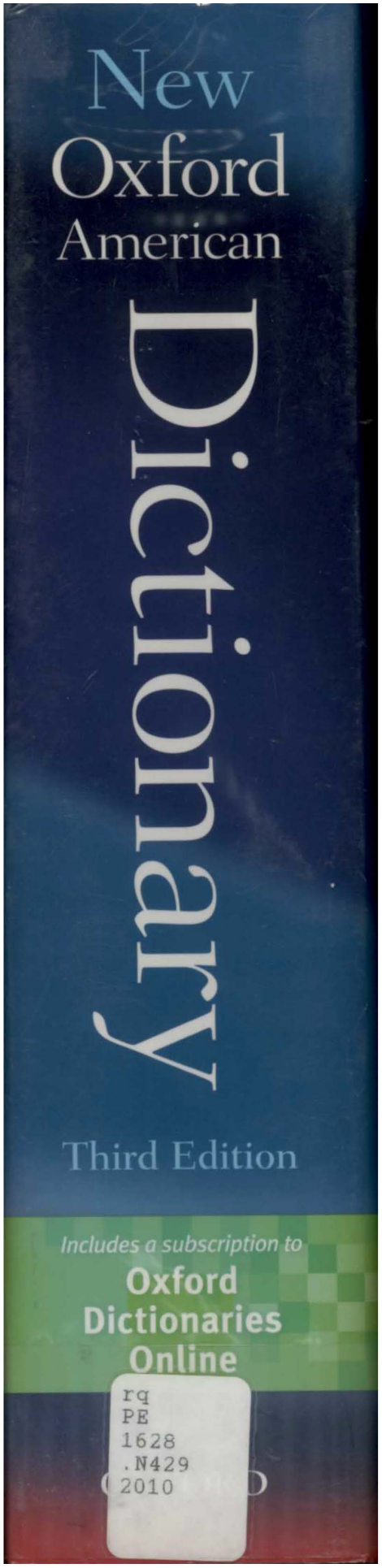
Third Edition

Includes a subscription to

Oxford Dictionaries Online

The world's most trusted dictionaries

Sandisk Technologies, Inc. - Ex. 1045, Page 000127



rq
PE
1628
.N429
2010

CARNEGIE LIBRARY of PITTSBURGH
3 1812 04630 0290

New Oxford American Dictionary

Third Edition

- Comprehensive, authoritative, thoroughly up-to-date, and richly descriptive coverage of current English
- Find just the right meaning with the unique, clear arrangement of core senses and subsenses, based on the latest evidence from the Oxford English Corpus
- Fascinating in-text features, such as Word Histories and Word Trends, explore the full richness of the English language
- Discover more about the English language with a fully integrated online dictionary and thesaurus, updated regularly so you can see the latest changes to the language. Plus listen to audio pronunciations, and much more
- Includes free access to Oxford's premium online dictionary service

More than 350,000 words, phrases, and definitions
Plus thousands more online

Buy this book and get six months of free access*
to Oxford Dictionaries Online at
www.oxforddictionaries.com/access
**Full terms and conditions on the website*

ISBN 978-0-19-539288-3
90000
9 780195 392883
U.S. $60.00

OXFORD
UNIVERSITY PRESS
www.oup.com

Sandisk Technologies, Inc. - Ex. 1045, Page 000129

Oxford Dictionaries Online

Six months of access included with this book

- integrated dictionary and thesaurus regularly updated with the latest new words
- links to extra help on grammar, punctuation, spelling, and style
- one million example sentences to show words in use
- audio pronunciations
- easy to search and browse

Buy this book and claim your free subscription.* Visit:

www.oxforddictionaries.com/access

*Full terms and conditions are on the website

Access the world's most trusted dictionaries wherever you are

Our dictionaries are available for a variety of mobile devices so you can access the world's most trusted dictionaries at home, in the office, or on the move.

You can buy our dictionaries as ebooks or as apps for your iPhone and other mobile and handheld devices, as well as on CD-ROM.

For more information on Oxford dictionaries visit:

www.oxforddictionaries.com/e-products

REFERENCE

Carnegie Library of Pittsburgh Main

New Oxford American Dictionary

THIRD EDITION

Edited by

Angus Stevenson

Christine A. Lindberg

FIRST EDITION

Elizabeth J. Jewell

Frank Abate

rq PE1628.N429 2010
New Oxford American
dictionary.
Oxford ; New York : Oxford
University Press, 2010.

OXFORD
UNIVERSITY PRESS

Sandisk Technologies, Inc. - Ex. 1045, Page 000131

OXFORD
UNIVERSITY PRESS

Oxford University Press, Inc., publishes works that further
Oxford University's objective of excellence
in research, scholarship, and education.

Oxford New York

Auckland Cape Town Dar es Salaam Hong Kong Karachi
Kuala Lumpur Madrid Melbourne Mexico City Nairobi
New Delhi Shanghai Taipei Toronto

With offices in

Argentina Austria Brazil Chile Czech Republic France Greece
Guatemala Hungary Italy Japan Poland Portugal Singapore
South Korea Switzerland Thailand Turkey Ukraine Vietnam

Copyright © 2010 by Oxford University Press

First edition 2001
Second edition 2005
Third edition 2010

Published by Oxford University Press, Inc.
198 Madison Avenue, New York, NY 10016
www.oup.com

Oxford is a registered trademark of Oxford University Press

All rights reserved. No part of this publication may be reproduced,
stored in a retrieval system, or transmitted, in any form or by any means,
electronic, mechanical, photocopying, recording, or otherwise,
without the prior permission of Oxford University Press.

The Library of Congress Cataloging-in-Publication Data

Data available

ISBN 978-0-19-539288-3

1 3 5 7 9 8 6 4 2

Printed in the United States of America
on acid-free paper

1536233313150735

Sandisk Technologies, Inc. - Ex. 1045, Page 000132

or·tho·don·tics /ˌôrTHəˈdänticks/ (also **orthodontia** /-dänsH(ē)ə/) ▶ **plural n.** [treated as sing.] the treatment of irregularities in the teeth (esp. of alignment and occlusion) and jaws, including the use of braces.
– DERIVATIVES **or·tho·don·tic adj.**, **or·tho·don·ti·cal·ly** /-tik(ə)lē/ **adv.**, **or·tho·don·tist** /-tist/ **n.**
– ORIGIN early 20th cent.: from **ORTHO-** 'straight' + Greek *odous, odont-* 'tooth.'

or·tho·dox /ˈôrTHəˌdäks/ ▶ **adj. 1** (of a person or their views, esp. religious or political ones, or other beliefs or practices) conforming to what is generally or traditionally accepted as right or true; established and approved: *the orthodox economics of today* | *orthodox medical treatment* | *orthodox Hindus*. ■ (of a person) not independent-minded; conventional and unoriginal: *a relatively orthodox artist*. **2** (of a thing) of the ordinary or usual type; normal: *they avoided orthodox jazz venues*. **3** (usu. **Orthodox**) (of the Jews or Judaism) strictly keeping to traditional doctrine and ritual. **4** (usu. **Orthodox**) of or relating to the Orthodox Church.
– DERIVATIVES **or·tho·dox·ly adv.**
– ORIGIN late Middle English: from Greek *orthodoxos* (probably via ecclesiastical Latin), from *orthos* 'straight or right' + *doxa* 'opinion.'

Or·tho·dox Church a Christian church or federation of churches originating in the Greek-speaking church of the Byzantine Empire, not accepting the authority of the pope, and using ancient forms of service.

The chief Orthodox churches (often known collectively as the **Eastern Orthodox Church**) include the national churches of Greece, Russia, Bulgaria, Romania, and Serbia. The term is also used by other ancient churches, mainly of African or Asian origin, e.g., the Coptic, Syrian, and Ethiopian churches.

Or·tho·dox Ju·da·ism a major branch within Judaism that teaches strict adherence to rabbinical interpretation of Jewish law and its traditional observances.

or·tho·dox·y /ˈôrTHəˌdäksē/ ▶ **n.** (pl. **orthodoxies**) **1** authorized or generally accepted theory, doctrine, or practice: *monetarist orthodoxy* | *he challenged many of the established orthodoxies*. ■ the quality of conforming to such theories, doctrines, or practices: *writings of unimpeachable orthodoxy*. **2** the whole community of Orthodox Jews or Orthodox Christians.
– ORIGIN mid 17th cent.: via late Latin from late Greek *orthodoxia* 'sound doctrine,' from *orthodoxos* (see **ORTHODOX**).

or·tho·drom·ic /ˌôrTHəˈdrämik/ ▶ **adj.** Physiology (of an impulse) traveling in the normal direction in a nerve fiber. The opposite of **ANTIDROMIC**.
– ORIGIN 1940s: from **ORTHO-** 'right, correct' + Greek *dromos* 'running' + **-IC**.

or·tho·e·py /ôrˈTHōəpē/ ▶ **n.** the correct or accepted pronunciation of words. ■ the study of correct or accepted pronunciation.
– DERIVATIVES **or·tho·ep·ic** /ˌôrTHōˈepik/ **adj.**, **or·tho·e·pist** /-pist/ **n.**
– ORIGIN mid 17th cent.: from Greek *orthoepeia* 'correct speech,' from *orthos* 'right or straight' + *epos, epe-* 'word.'

or·tho·gen·e·sis /ˌôrTHōˈjenəsis/ ▶ **n.** Biology, chiefly historical a theory that variations in evolution follow a particular direction and are not merely sporadic and fortuitous.
– DERIVATIVES **or·tho·gen·e·sist n.**, **or·tho·ge·net·ic** /-jəˈnetik/ **adj.**, **or·tho·ge·net·i·cal·ly** /-jəˈnetik(ə)lē/ **adv.**

or·thog·na·thous /ôrˈTHägnəTHəs/ ▶ **adj.** Anatomy (esp. of a person) having a jaw that does not project or recede, so that the facial profile is nearly vertical.
– ORIGIN mid 19th cent.: from **ORTHO-** 'straight' + Greek *gnathos* 'jaw' + **-OUS**.

or·thog·o·nal /ôrˈTHägənl/ ▶ **adj. 1** of or involving right angles; at right angles. **2** Statistics (of variates) statistically independent. ■ (of an experiment) having variates that can be treated as statistically independent.
– DERIVATIVES **or·thog·o·nal·i·ty** /ôrˌTHägəˈnalitē/ **n.**, **or·thog·o·nal·ly adv.**
– ORIGIN late 16th cent.: from French, based on Greek *orthogōnios* 'right-angled.'

or·thog·o·nal pro·jec·tion ▶ **n.** Engineering a system of making engineering drawings showing two or more views of an object at right angles to each other on a single drawing. ■ a drawing made using this method.

or·tho·graph·ic pro·jec·tion /ˌôrTHəˈgrafik/ ▶ **n.** a method of projection in which an object is depicted or a surface mapped using parallel lines to project its shape onto a plane. ■ a drawing or map made using this method.

or·thog·ra·phy /ôrˈTHägrəfē/ ▶ **n.** (pl. **orthographies**) **1** the conventional spelling system of a language. ■ the study of spelling and how letters combine to represent sounds and form words. **2** another term for **ORTHOGRAPHIC PROJECTION**.
– DERIVATIVES **or·thog·ra·pher** /-fər/ **n.** (sense 1), **or·tho·graph·ic** /ˌôrTHəˈgrafik/ **adj.**, **or·tho·graph·i·cal** /ˌôrTHəˈgrafikəl/ **adj.**, **or·tho·graph·i·cal·ly** /ˌôrTHəˈgrafik(ə)lē/ **adv.**
– ORIGIN late Middle English: via Old French and Latin from Greek *orthographia*, from *orthos* 'correct' + *-graphia* 'writing.'

or·tho·ker·a·tol·o·gy /ˌôrTHōˌkerəˈtäləjē/ ▶ **n.** the temporary reshaping of the cornea (usually overnight) with specially made rigid contact lenses, in order to correct myopia.

or·tho·mo·lec·u·lar /ˌôrTHōməˈlekyələr/ ▶ **adj.** pertaining to a theory that illness can be treated and health maximized by creating the optimal molecular environment for the cells of the body through the introduction of natural substances: *orthomolecular nutrition/psychiatry/oncology*.
– ORIGIN 1968: coined by Linus *Pauling*.

or·tho·mor·phic /ˌôrTHōˈmôrfik/ ▶ **adj.** see **CONFORMAL**.

Or·tho·nec·ti·da /ˌôrTHəˈnektidə/ Zoology a minor phylum of mesozoan worms that are internal parasites of a range of marine invertebrates.
– DERIVATIVES **or·tho·nec·tid n. & adj.**
– ORIGIN modern Latin (plural), from Greek *orthos* 'straight' + *nektos* 'swimming' (see **NEKTON**).

or·tho·nor·mal /ˌôrTHəˈnôrməl/ ▶ **adj.** Mathematics both orthogonal and normalized.
– DERIVATIVES **or·tho·nor·mal·i·ty** /-nôrˈmalitē/ **n.**, **or·tho·nor·mal·i·za·tion** /-ˌnôrməliˈzāSHən/ **n.**

or·tho·pe·dics /ˌôrTHəˈpēdiks/ (Brit. **orthopaedics**) ▶ **plural n.** [treated as sing.] the branch of medicine dealing with the correction of deformities of bones or muscles. [originally relating specifically to children.]
– DERIVATIVES **or·tho·pe·dic adj.**, **or·tho·pe·di·cal·ly** /-ik(ə)lē/ **adv.**, **or·tho·pe·dist** /-dist/ **n.**
– ORIGIN mid 19th cent.: from French *orthopédie*, from Greek *orthos* 'right or straight' + *paideia* 'rearing of children.'

or·tho·phos·phor·ic ac·id /ˌôrTHōfäsˈfôrik, -ˈfär-/ ▶ **n.** another term for **PHOSPHORIC ACID**.
– DERIVATIVES **or·tho·phos·phate** /-ˈfäsfāt/ **n.**

or·tho·pox·vi·rus /ˈôrTHōˌpäksˌvīrəs/ ▶ **n.** any of a set of viruses pathological in humans and animals that includes the cowpox, smallpox, and monkeypox viruses. ● Genus *Orthopoxvirus*, family Poxviridae.

or·tho·psy·chi·a·try /ˌôrTHōsīˈkīətrē/ ▶ **n.** the branch of psychiatry concerned with the study and prevention of mental or behavioral disorders, with emphasis on child development and family life.
– DERIVATIVES **or·tho·psy·chi·at·ric** /-ˌsīkēˈatrik/ **adj.**, **or·tho·psy·chi·a·trist** /-trist/ **n.**

or·thop·ter /ôrˈTHäptər/ ▶ **n.** another term for **ORNITHOPTER**.

Or·thop·ter·a /ôrˈTHäptərə/ Entomology an order of insects that comprises the grasshoppers, crickets, katydids, etc. They have a saddle-shaped thorax, hind legs that are typically long and modified for jumping, and a characteristic song that the male produces by stridulation. ■ (as plural noun **orthoptera**) insects of this order.
– ORIGIN modern Latin (plural), from **ORTHO-** 'straight' + Greek *pteros* 'wing.'

or·thop·ter·an /ôrˈTHäptərən/ Entomology ▶ **n.** an insect of the order Orthoptera, such as a grasshopper or cricket.
▶ **adj.** relating to or denoting orthopterans.
– DERIVATIVES **or·thop·ter·ous** /-tərəs/ **adj.**

or·thop·ter·oid /ôrˈTHäptəˌroid/ ▶ **adj.** Entomology of or relating to a group of insect orders that are related to the grasshoppers and crickets, including also the stoneflies, stick insects, earwigs, cockroaches, mantises, and termites.

or·thop·tics /ôrˈTHäptiks/ ▶ **plural n.** [treated as sing.] the study or treatment of disorders of vision, esp. of eye movements or eye alignment.
– DERIVATIVES **or·thop·tic adj.**, **or·thop·tist** /-tist/ **n.**
– ORIGIN late 19th cent.: from **ORTHO-** 'correct' + Greek *optikos* (see **OPTIC**).

or·tho·py·rox·ene /ˌôrTHōpīˈräksēn/ ▶ **n.** a mineral of the pyroxene group crystallizing in the orthorhombic system.

or·tho·rex·i·a /ˌôrTHəˈreksēə/ ▶ **n.** an obsession with eating foods that one considers healthy. ■ (also **orthorexia nervosa** /nərˈvōsə/) a medical condition in which the sufferer systematically avoids specific foods in the belief that they are harmful.
– DERIVATIVES **or·tho·rex·ic adj. & n.**
– ORIGIN 1990s: from *ortho-* + Greek *orexia*, 'appetite,' after *anorexia*.

or·tho·rhom·bic /ˌôrTHəˈrämbik/ ▶ **adj.** of or denoting a crystal system or three-dimensional geometric arrangement having three unequal axes at right angles.

or·tho·sis /ôrˈTHōsis/ ▶ **n.** (pl. **orthoses** /-ˌsēz/) Medicine the correction of disorders of the limbs or spine by use of braces and other devices to correct alignment or provide support. ■ a brace or other such device; orthotic.
– ORIGIN 1950s: from Greek *orthōsis* 'making straight,' from *orthoun* 'set straight.'

or·tho·stat·ic /ˌôrTHəˈstatik/ ▶ **adj.** Medicine relating to or caused by an upright posture.

or·thos·ti·chy /ôrˈTHästikē/ ▶ **n.** (pl. **orthostichies**) Botany (in phyllotaxis) a vertical row of leaves arranged one directly above another. Contrasted with **PARASTICHY**.
– ORIGIN late 19th cent.: from **ORTHO-** 'upright, straight' + Greek *stikhos* 'row, rank.'

or·thot·ic /ôrˈTHätik/ ▶ **adj.** relating to orthotics.
▶ **n.** an artificial support or brace for the limbs or spine.

or·thot·ics /ôrˈTHätiks/ ▶ **plural n.** [treated as sing.] the branch of medicine that deals with the provision and use of artificial devices such as splints and braces.
– DERIVATIVES **or·thot·ist n.**

or·tho·trop·ic /ˌôrTHəˈtrōpik, -ˈträp-/ ▶ **adj. 1** Botany (of a shoot, stem, or axis) growing vertically. **2** Engineering (of a material) having elastic properties in two or three planes perpendicular to each other.

or·thot·ro·pous /ôrˈTHätrəpəs/ ▶ **adj.** Botany (of a plant ovule) having the nucleus straight, i.e., not inverted, so that the micropyle is at the end opposite the base.

or·to·lan /ˈôrtl-ən/ (also **ortolanbunting**) ▶ **n.** a small Eurasian songbird that was formerly eaten as a delicacy, the male having an olive-green head and yellow throat. ● *Emberizahortulana*, family Emberizidae (subfamily Emberizinae).
– ORIGIN early 16th cent.: from French, from Provençal, literally 'gardener,' based on a diminutive of Latin *hortus* 'garden.'

O·ru·ro /ôˈrōōrō/ a city in western Bolivia; pop. 216,714 (2009). It is the center of an important mining region, with rich deposits of tin, zinc, silver, copper, and gold.

ORV ▶ **abbr.** off-road vehicle.

Or·vie·to¹ /ôrˈvyetō/ a town in Umbria, in central Italy in the middle of a wine-producing area; pop. 21,059 (2008).

Or·vi·e·to² /ôrˈvyedō/ ▶ **n.** a white wine made near Orvieto.

Or·well /ˈôrwel/, George (1903–50), British novelist and essayist, born in India; pseudonym of *Eric Arthur Blair*. His work is characterized by his concern about social injustice. His best-known works are *Animal Farm* (1945) and *Nineteen Eighty-Four* (1949).
– DERIVATIVES **Or·well·i·an** /ôrˈwelēən/ **adj.**

-ory¹ ▶ **suffix** (forming nouns) denoting a place for a particular function: *dormitory* | *repository*.
– ORIGIN from Latin *-oria, -orium*, sometimes via Anglo-Norman French *-orie*, Old French *-oire*.

-ory² ▶ **suffix** forming adjectives (and occasionally nouns) relating to or involving a verbal action: *compulsory* | *directory* | *mandatory*.
– ORIGIN from Latin *-orius*, sometimes via Anglo-Norman French *-ori(e)*.

o·ryx /ˈôriks/ ▶ **n.** any of several species of antelopes native to arid regions of Africa and Asia, having dark markings on the face and long, pointed horns. ● Genus *Oryx*, family Bovidae: several species, including the **Arabian oryx** (*O. leucoryx*). See also **GEMSBOK, SCIMITAR ORYX**.
– ORIGIN late Middle English: via Latin from Greek *orux* 'stonemason's pickax' (because of its pointed horns).

or·zo /ˈôrzō/ ▶ **n.** a variety of pasta shaped like grains of barley or rice.
– ORIGIN Italian, literally 'barley.'

OS ▶ **abbr.** ■ (in calculating dates) Old Style. ■ Computing operating system. ■ Ordinary Seaman. ■ (in the UK) Ordnance Survey. ■ (as a size of clothing) outsize. ■ out of stock. ■ overseas.

Os ▶ **symbol** the chemical element osmium.

Sandisk Technologies, Inc. - Ex. 1045, Page 000133

– DERIVATIVES **Pe·ro·nism** /-ˌnizəm/ **n.**, **Pe·ro·nist** /-nist/ **adj. & n.**

per·o·ne·al /ˌperəˈnēəl/ ▶ **adj.** Anatomy relating to or situated in the outer side of the calf of the leg.
– ORIGIN mid 19th cent.: from modern Latin *peronaeus* 'peroneal muscle' (based on Greek *peronē* 'pin, fibula') + **-AL**.

per·o·rate /ˈperəˌrāt/ ▶ **v.** [no obj.] formal speak at length: *he reportedly would perorate against his colleague.* ■ archaic sum up and conclude a speech: *the following innocent conclusion with which she perorates.*
– ORIGIN early 17th cent.: from Latin *perorat-* 'spoken at length,' from the verb *perorare*, from *per-* 'through' + *orare* 'speak.'

per·o·ra·tion /ˌperəˈrāSHən/ ▶ **n.** the concluding part of a speech, typically intended to inspire enthusiasm in the audience.
– ORIGIN late Middle English: from Latin *peroratio(n-)*, from *perorare* 'speak at length' (see **PERORATE**).

pe·rovsk·ite /pəˈrävzkīt, -ˈräfs-/ ▶ **n.** a yellow, brown, or black mineral consisting largely of calcium titanate. ■ any of a group of related minerals and ceramics having the same crystal structure as this.
– ORIGIN mid 19th cent.: from the name of L. A. *Perovsky* (1792–1856), Russian mineralogist, + **-ITE¹**.

per·ox·i·dase /pəˈräksəˌdās/ ▶ **n.** Biochemistry an enzyme that catalyzes the oxidation of a particular substrate by hydrogen peroxide.

per·ox·ide /pəˈräksīd/ ▶ **n.** Chemistry a compound containing two oxygen atoms bonded together in its molecule or as the anion O_2^{2-}. ■ hydrogen peroxide, esp. as used as a bleach for the hair: [as modifier] *a peroxide blonde.*
▶ **v.** [with obj.] bleach (hair) with peroxide.
– ORIGIN early 19th cent.: from **PER-** (sense 2) + **OXIDE**.

per·ox·i·some /pəˈräksiˌsōm/ ▶ **n.** Biology a small organelle that is present in the cytoplasm of many cells and that contains the reducing enzyme catalase and usually some oxidases.
– DERIVATIVES **per·ox·i·so·mal** /-ˌräksiˈsōməl/ **adj.**
– ORIGIN 1960s: from **PEROXIDE** + **-SOME³**.

perp /pərp/ ▶ **n.** informal the perpetrator of a crime.
– ORIGIN 1980s: abbreviation.

perp. ▶ **abbr.** perpendicular.

per·pend /pərˈpend/ ▶ **n.** a vertical layer of mortar between two bricks.

per·pen·dic·u·lar /ˌpərpənˈdikyələr/ ▶ **adj.** **1** at an angle of 90° to a given line, plane, or surface: *dormers and gables that extend perpendicular to the main roofline.* ■ at an angle of 90° to the ground; vertical: *the perpendicular cliff.* ■ (of something with a slope) so steep as to be almost vertical: *guest houses seem to cling by faith to the perpendicular hillside.*
2 (**Perpendicular**) denoting the latest stage of English Gothic church architecture, prevalent from the late 14th to mid 16th centuries and characterized by broad arches, elaborate fan vaulting, and large windows with vertical tracery: *the handsome Perpendicular church of St. Andrew.*
▶ **n.** a straight line at an angle of 90° to a given line, plane, or surface: *at each division, draw a perpendicular representing the surface line.* ■ (usu. **the perpendicular**) perpendicular position or direction: *the wall declines from the perpendicular a little inward.* ■ an instrument for indicating the vertical line from any point, as a spirit level or plumb line.
– DERIVATIVES **per·pen·dic·u·lar·i·ty** /-ˌdikyəˈlaritē/ **n.**, **per·pen·dic·u·lar·ly** **adv.**
– ORIGIN late Middle English (as an adverb meaning 'at right angles'): via Old French from Latin *perpendicularis*, from *perpendiculum* 'plumb line,' from *per-* 'through' + *pendere* 'to hang.'

per·pe·trate /ˈpərpəˌtrāt/ ▶ **v.** [with obj.] carry out or commit (a harmful, illegal, or immoral action): *a crime has been perpetrated against a sovereign state.*
– DERIVATIVES **per·pe·tra·tion** /ˌpərpəˈtrāSHən/ **n.**, **per·pe·tra·tor** /-ˌtrātər/ **n.**
– ORIGIN mid 16th cent.: from Latin *perpetrat-* 'performed,' from the verb *perpetrare*, from *per-* 'to completion' + *patrare* 'bring about.' In Latin the act perpetrated might be good or bad; in English the verb was first used in the statutes referring to crime, hence the negative association.

> **USAGE** To **perpetrate** something is to commit it: *the gang perpetrated outrages against several citizens.* To **perpetuate** something is to cause it to continue or to keep happening: *the stories only serve to perpetuate the legend that the house is haunted.*

per·pet·u·al /pərˈpeCHo͞oəl/ ▶ **adj.** **1** never ending or changing: *deep caves in perpetual darkness.* ■ [attrib.] denoting a position, job, or trophy held for life rather than a limited period, or the person holding it: *a perpetual secretary of the society.* ■ (of an investment) having no fixed maturity date; irredeemable: *a perpetual bond.*
2 occurring repeatedly; so frequent as to seem endless and uninterrupted: *their perpetual money worries.* ■ (of a plant) blooming or fruiting several times in one season: *he grows perpetual carnations.*
– DERIVATIVES **per·pet·u·al·ly** **adv.**
– ORIGIN Middle English: from Old French *perpetuel*, from Latin *perpetualis*, from *perpetuus* 'continuing throughout,' from *perpes*, *perpet-* 'continuous.'

per·pet·u·al cal·en·dar ▶ **n.** a calendar that can be adjusted to show any combination of day, month, and year, and is therefore usable year after year. ■ a set of tables from which the day of the week can be reckoned for any date.

per·pet·u·al check ▶ **n.** Chess the situation of play when a draw is obtained by repeated checking of the king.

per·pet·u·al mo·tion ▶ **n.** a state in which movement or action is or appears to be continuous and unceasing. ■ the motion of a hypothetical machine that, once activated, would run forever unless subject to an external force or to wear.

per·pet·u·ate /pərˈpeCHo͞oˌāt/ ▶ **v.** [with obj.] make (something, typically an undesirable situation or an unfounded belief) continue indefinitely: *the law perpetuated the interests of the ruling class.* ■ preserve (something valued) from oblivion or extinction: *how did these first humans survive to perpetuate the species?*
– DERIVATIVES **per·pet·u·ance** /-o͞oəns/ **n.**, **per·pet·u·a·tion** /pərˌpeCHo͞oˈāSHən/ **n.**, **per·pet·u·a·tor** **n.**
– ORIGIN early 16th cent.: from Latin *perpetuat-* 'made permanent,' from the verb *perpetuare*, from *perpetuus* 'continuing throughout' (see **PERPETUAL**).

> **USAGE** See usage at **PERPETRATE**.

per·pe·tu·i·ty /ˌpərpiˈt(y)o͞oitē/ ▶ **n.** (pl. **perpetuities**) **1** a thing that lasts forever or for an indefinite period, in particular: ■ a bond or other security with no fixed maturity date. ■ Law a restriction making an estate inalienable perpetually or for a period beyond certain limits fixed by law. ■ Law an estate so restricted.
2 the state or quality of lasting forever: *he did not believe in the perpetuity of military rule.*
– PHRASES **in** (or **for**) **perpetuity** forever: *all the Bonapartes were banished from France in perpetuity.*
– ORIGIN late Middle English: from Old French *perpetuite*, from Latin *perpetuitas*, from *perpetuus* 'continuing throughout' (see **PERPETUAL**).

per·pet·u·um mo·bi·le /pərˈpeCHo͞oəm ˈmōbəˌlā/ ▶ **n.** **1** Music a piece of fast-moving instrumental music consisting mainly of notes of equal length.
2 another term for **PERPETUAL MOTION**.
– ORIGIN Latin, literally 'continuously moving (thing),' on the pattern of *primum mobile*.

Per·pi·gnan /ˌperpēˈnyäN/ a city in southern France, in the northeastern foothills of the Pyrenees, close to the border with Spain; pop. 117,500 (2006).

per·plex /pərˈpleks/ ▶ **v.** [with obj.] (of something complicated or unaccountable) cause (someone) to feel completely baffled: *she was perplexed by her husband's moodiness.* ■ dated complicate or confuse (a matter): *they were perplexing a subject plain in itself.*
– ORIGIN late 15th cent. (as the adjective *perplexed*): from the obsolete adjective *perplex* 'bewildered,' from Latin *perplexus* 'entangled,' based on *plexus* 'interwoven,' from the verb *plectere*.

per·plexed /pərˈplekst/ ▶ **adj.** completely baffled; very puzzled: *she gave him a perplexed look.*
– DERIVATIVES **per·plex·ed·ly** /-ˈpleksidlē/ **adv.**

per·plex·ing /pərˈpleksiNG/ ▶ **adj.** completely baffling; very puzzling: *a perplexing problem.*
– DERIVATIVES **per·plex·ing·ly** **adv.**

per·plex·i·ty /pərˈpleksitē/ ▶ **n.** (pl. **perplexities**) **1** inability to deal with or understand something complicated or unaccountable: *she paused in perplexity.* ■ (usu. **perplexities**) a complicated or baffling situation or thing: *the perplexities of international relations.*
2 archaic an entangled state: *the dense perplexity of dwarf palm, garlanded creepers, glossy undergrowth.*
– ORIGIN Middle English: from Old French *perplexite* or late Latin *perplexitas*, from Latin *perplexus* 'entangled, confused' (see **PERPLEX**).

per pro. /pər ˈprō/ ▶ **abbr.** per procurationem (used when signing a letter on behalf of someone else; now usually abbreviated to **pp**).
– ORIGIN Latin.

per·qui·site /ˈpərkwəzit/ ▶ **n.** formal another term for **PERK²**. ■ a thing regarded as a special right or privilege enjoyed as a result of one's position: *the wife of a president has all the perquisites of stardom.* ■ historical a thing that has served its primary use and is then given to a subordinate or employee as a customary right.
– ORIGIN late Middle English: from medieval Latin *perquisitum* 'acquisition,' from Latin *perquirere* 'search diligently for,' from *per-* 'thoroughly' + *quaerere* 'seek.'

> **USAGE** **Perquisite** and **prerequisite** are sometimes confused. **Perquisite** usually means 'an extra allowance or privilege': *he had all the perquisites of a movie star, including a stand-in.* **Prerequisite** means 'something required as a condition': *passing the examination was one of the prerequisites for a teaching position.*

Per·rault /pəˈrō/, Charles (1628–1703), French writer. He is noted for *Mother Goose Tales* (1697).

Per·ri·er /ˈperēˌyā/ (also **Perrier water**) ▶ **n.** trademark an effervescent natural mineral water sold as a drink.
– ORIGIN from the name of a spring at Vergèze, France, from which this water comes.

Per·rin /ˈperən, peˈraN/, Jean Baptiste (1870–1942), French physical chemist. He provided the definitive proof of the existence of atoms, proved that cathode rays are negatively charged, and investigated Brownian motion. Nobel Prize for Physics (1926).

per·ron /ˈperən, pəˈrôn/ ▶ **n.** Architecture an exterior set of steps and a platform at the main entrance to a large building such as a church or mansion.
– ORIGIN late Middle English: from Old French, literally 'large stone,' from Latin *petra* 'stone.'

Per·ry /ˈperē/, Fred (1909–95), US tennis player, born in Britain; full name *Frederick John Perry*. His record of winning three consecutive singles titles at Wimbledon (1934–36) was unequaled until 1979 when it was broken by Björn Borg.

per·ry /ˈperē/ ▶ **n.** (pl. **perries**) an alcoholic drink made from the fermented juice of pears.
– ORIGIN Middle English: from Old French *pere*, from an alteration of Latin *pirum* 'pear.'

pers. ▶ **abbr.** ■ person. ■ personal.

per se /pər ˈsā/ ▶ **adv.** by or in itself or themselves; intrinsically: *it is not these facts per se that are important.*
– ORIGIN Latin.

per·se·cute /ˈpərsəˌkyo͞ot/ ▶ **v.** [with obj.] subject (someone) to hostility and ill-treatment, esp. because of their race or political or religious beliefs: *his followers were persecuted by the authorities.* ■ harass or annoy (someone) persistently: *Hilda was persecuted by some of the other girls.*
– DERIVATIVES **per·se·cu·tor** /-ˌkyo͞otər/ **n.**, **per·se·cu·to·ry** /-kyo͞oˌtôrē/ **adj.**
– ORIGIN late Middle English: from Old French *persecuter*, from Latin *persecut-* 'followed with hostility,' from the verb *persequi*, from *per-* 'through, utterly' + *sequi* 'follow, pursue.'

per·se·cu·tion /ˌpərsəˈkyo͞oSHən/ ▶ **n.** hostility and ill-treatment, esp. because of race or political or religious beliefs: *her family fled religious persecution.* ■ persistent annoyance or harassment: *his persecution at the hands of other students.*

per·se·cu·tion com·plex ▶ **n.** an irrational and obsessive feeling or fear that one is the object of collective hostility or ill-treatment on the part of others.

Per·se·ids /ˈpərsēidz/ Astronomy an annual meteor shower radiating from a point in the constellation Perseus, reaching a peak about August 12.

Per·seph·o·ne /pərˈsefənē/ Greek Mythology a goddess, the daughter of Zeus and Demeter. Roman name **PROSERPINA**.

> She was carried off by Hades and made queen of the underworld. Demeter, vainly seeking her, refused to let the earth produce its fruits until her daughter was restored to her, but because Persephone had eaten some pomegranate seeds in the other world, she was obliged to spend part of every year there. Her story symbolizes the return of spring and the life and growth of grain.

Per·sep·o·lis /pərˈsepəlis/ a city in ancient Persia, northeast of Shiraz. It was founded in the late 6th century BC by Darius I as the ceremonial capital of Persia under the Achaemenid dynasty.

Per·se·us /ˈpərsēəs, -syo͞os/ **1** Greek Mythology the son of Zeus and Danae, a hero celebrated for many achievements. Riding the winged horse Pegasus, he cut off the head of the Gorgon Medusa and gave it to Athena; he also rescued and married Andromeda, and became king of Tiryns in Greece.
2 Astronomy a large northern constellation that includes a dense part of the Milky Way. It contains several star clusters and the variable star Algol.
■ (as genitive **Persei** /ˈpərsēˌī/) used with a preceding

Sandisk Technologies, Inc. - Ex. 1045, Page 000134