

Vocabulary List 1

Greek Prefixes

a- (an- before vowels or h) (ἀ-)

‘not’, ‘without’

- atheist, anaesthetic (*inducing a lack of sensation*)

amphi-, amphi- (ἀμφί)

‘both’, ‘on both sides of’, ‘around’

- amphibious, amphitheatre

ana- (ἀνα)

‘up’, ‘back’, ‘again’

- analysis, anatomy, anachronism

ant(i)- (ἀντί)

‘against’, ‘opposite’

- antidote, antagonist, antarctic

ap(o)- (ἀπο)

‘from’, ‘off’, ‘away’

- apology, apostle, apheliotropism (*the habit in plants of bending away from the light*)

cat(a)- (κατά)

‘down’, ‘against’, ‘according to’

- catalyst, catastrophe, category, catholic (*universal, i.e. ‘in respect of the whole’*)

di(a)- (διά)

‘through’, ‘across’, ‘between’, ‘apart’

- diameter, diagnosis, diocese

NOTE: not to be confused with DI- ‘twice’ of List 4 or the Latin prefix dis-/di- ‘apart’ of List 6.

dys- (δυσ-)

‘bad’, ‘disordered’, ‘difficult’

- dysentery, dystrophy

es-, eis- (εἰς)

‘inward’, ‘into’

- esoteric, esodic (or eisodic)

ec- (ex- before vowels or h) (ἐκ, ἐξ)

‘out’, ‘out of’, ‘outside’

- exodus, exodontist

NOTE: not to be confused with the root EC ‘house’ below.

en- (em-, el- depending on letter it connects with) (έν)

‘in’, ‘into’, ‘inward’

- energy, embryo, emphatic

enanti- (= en- + anti-) (έναντι-)

‘opposite’

- enantiopathy (*the treatment of disease by contraries*), enantiobiosis (*the condition in which associated organisms are antagonistic to each other*)

end(o)-, ent(o)- (ἔνδον, ἐντός)

‘within’, ‘inner’

- endocrine, entophyte, endarteritis, entoptic

ep(i)- (ἐπί)

‘upon’, ‘on’, ‘to’, ‘in addition to’

- epidemic, epidermis, epitaph

eu- (εὖ)

‘well’, ‘good’, ‘normal’

- eugenics, eulogy

exo-, ecto- (ἐξο-, ἐκτός)

‘outside’, ‘external’

- exoskeleton, ectoparasite

hyper- (ὑπέρ)

‘over’, ‘excessive’, ‘more than normal’

- hypercritical, hypertension

hyp(o)- (ὑπό)

‘under’, ‘below normal’, ‘slightly’

- hypodermic, hypothesis, hyphen, hypaesthesia

met(a)- (μετά)

‘after’, ‘change’, ‘transfer’

- metamorphosis, metencephalon

par(a)- (παρά)

‘beside’, ‘resembling’, ‘disordered’

- parasite, paratyphoid, parenthesis, paramedical

peri- (περί)

‘around’, ‘near’

- periscope, perimeter

pro- (πρό)

‘before’, ‘in front of’, ‘forward’

- program, prologue, prostate

pros- (πρός)

‘toward’, ‘in addition’, ‘fronting’

- proselyte, prosthetic, prosencephalon

syn- (sym-, syl-, sy-, sys- depending on letter it connects with) (σύν)

‘with’, ‘together’

- synthetic, symphony, systole, synonym

Greek Adjective-Forming Suffixes

-al (-*alis*)

‘pertaining to’, ‘like’, ‘belonging to’,
‘having the character of’

- Biological

NOTE: this is technically derived from a Latin adjective ending, though Latin used it to form adjectives out of Greek words.

-an, -ian (-*anus*)

‘pertaining to’, ‘like’, ‘one connected with’

- Amphibian, protozoan, theologian

NOTE: Same deal as with **-al** above.

-ous, -ious (-*osus*)

‘full of’, ‘having’, ‘pertaining to’, ‘like’

- Amphibious, synonymous,
homogeneous

NOTE: Same deal as with **-al** above.

-ic, -tic, (-ac after -i) (-*ikos*)

‘pertaining to’, ‘like’

- Gastric, static, cardiac

-ics, -tics (-*ikos*)

‘art, science or study of’

- Physics, genetics, pediatrics =

-oid, -ode (-*oidēs, -oideēs*)

‘like’, ‘having the shape of’

- Spheroid, adenoid, nematode,
phyllode

Greek Compound Suffixes I (Adjective Forming)

-genous, -genic (GEN- + -ous/-ic)

‘producing’, ‘produced’

- photogenic, endogenous, cytogenous

NOTE: the root GEN- is Latin, and will be learned in Unit 10.

-oecious (OEC- + -ious)

‘having a house or dwelling’

- monoecious (*having male and female sex organs in the same individual*), androdioecious
(*having perfect and staminate flowers on different plants*)

-philous, -philic (PHIL- + -ous/-ic)

‘loving’, ‘thriving in’

- necrophilic, anemophilous

Greek Roots I

ACOU-, (ACU-) (ἀκούω)

‘to hear’

- ACOU-smat-a-GNO-sis; inability to recognize spoken words;
- an-ACU-sia, complete deafness

AESTHE-, (ESTHE-) (αἶσθημα)

‘to feel’, ‘to perceive’

- syn-AESTHE-sia, a secondary sensation accompanying an actual perception;
- ACANTH-AESTHE-sia, a sensation as of pricking with a needle

ALG- (ἄλγος)

‘pain’ (-*algisia*, ‘sense of pain’)

- an-ALG-esic, a drug acting to relieve pain;
- nost-ALG-ia, a sentimental longing or wistful affection for a period in the past

AMBLY- (ἀμβλύς)

‘dull’

- AMBLY-CEPHAL-idae, a genus of broad-headed, nonpoisonous snakes, bluntheads;
- AMBLY-ACU-sia

ANTH- (ἄνθος)

‘flower’

- ANTHO-philous, attracted by flowers, feeding on flowers;
- ex-ANTH-ema, an eruption on the skin

ARTHR- (ἄρθρον)

‘joint’, ‘speech sound’, ‘articulation’

- dys-ARTHR-ia, impairment of speech articulation

BI- (βίος)

‘life’

- sym-BIO-sis, living together for mutual benefit

NOTE: Not to be confused with the homonymous Latin root BI- ‘two’ of List 10.

BALL-, BOL-, BLE- (βάλλω)

‘to throw’, ‘to put’

- BALL-ist-ics;
- sym-BOL;
- em-BOL-ism, destruction of a blood vessel by foreign matter lodged in it;
- em-BOLO-LAL-ia, insertion of meaningless words into speech

BRADY- (βραδύς)

‘slow’

- BRADY-LEX-ia, slowness in reading;
- BRADY-CARD-ia, slowness of the heart

BUL- (BOUL-) (βούλομαι)

‘will’, ‘volition’

- a-BUL-ia, loss of ability to make decisions

NOTE: Not to be confused with the similar Latin root BULL- ‘bubble’ of List 7

CARDI- (καρδιά)

‘heart’

- MYO-CARDI-al, pertaining to the muscular tissue of the heart

CEPHAL- (κεφαλή)

‘head’ (enCEPHAL-, ‘brain’)

- CEPHALO-POD;
- pros-ENCEPHAL-on, forebrain or anterior brain vesicle of the embryo;
- met-ENCEPHAL-on

CHONDR-, CHONDRI- (χόνδρος)

‘cartilage’, ‘granule’ (orig, ‘groat (hulled grain) of wheat’)

- peri-CHONDRI-um; fibrous connective tissue covering cartilage

CHROM-, CHROMAT-, CHRO- (χρῶμα, χρώματα)

‘colour’

- meta-CHRO-sis, the change or play of colours seen in the squid, chameleon, etc.

CRYPT- (κρυπτός)

‘hidden’

- CRYPT; CRYPTO-GRAPH-y;
- CRYPT-ic;
- CRYPTO-PHYTE, a plant the produces buds underground or underwater;
- CRYPT-ORCH-ism; condition wherein the testes do not descend

DACTYL- (δάκτυλος)

‘finger’, ‘toe’

- DACTYLO-lysis, a tropical disease in which a toe is slowly and

spontaneously amputated by a fibrous ring

DE-, DESM- (δέω; δεσμός)

‘to bind’; ‘binding’, ‘ligament’

- amphi-DESM-ic, furnished with a double ligament;
- syn-DESMO-logy, the study of ligaments;
- syn-DE-sis, state of being bound together

NOTE: not to be confused with the Latin prefix de- of List 6.

DEM- (δημος)

‘people’, ‘country’

- apo-DEMI-ALG-ia, morbid dislike of home life and a desire to wander;
- epi-DEM-ic, occurring widely within a certain geographic area;
- ec-DEM-ic, of foreign origin, opp. of en-DEM-ic

DERM- (δέρμα)

‘skin’

- PODO-DERM a hoof’s dermal layer;
- the DERM-is lays between the epi- DERM-is and the subcutaneous tissues

DROM- (δρόμος)

‘running’, ‘course’

- syn-DROME, symptoms that occur together and characterize a particular disease;
- a-DROM-ia; failure of impulse conduction in muscles or nerves

ENTER- (έντερον)

‘intestine’

- an-ENTER-ous, having no alimentary tract;
- MY-ENTER-ic, relating to the muscular coat of the intestine;
- dys-ENTER-y

ERG- (ἔργον)

‘work’

- endo-ERG-ic; relating to the absorption of heat, endothermic;
- ADREN-ERG-ic, activated by adrenaline

GAM- (γάμος)

‘marriage’, ‘union’

- a-GAMO-GENE-sis, asexual reproduction;
- GAM-ete, a sexual cell capable of uniting with another to form a new individual, such as sperms and eggs

GE- (γῆ)

‘earth’

- amphi-GE-an; living around the world;
- GEO-CARP-y, ripening of fruits underground (peanuts, for instance)

GEN(E), GON- (γίγνομαι --) ἐγενόμην; γένος; γονή)

‘to be produced’, ‘to produce’; ‘seed’

- GENE-sis;
- eu-GEN-ics (i.e. ‘producing well’);
- COCCO-GONE, a reproductive cell in certain algae;
- GON-ad, an organ that produces gametes; a testis or ovary

NOTE: not to be confused with the Latin roots GEN(U)- ‘knee’ and GEN- ‘produce’ of List 10

GER-, GERONT- (γέρων, γέροντος)

‘old person’, ‘old age’

- GERONTO-phobia, morbid fear of old age;
- GER-ODONT-ia, dentistry for the aged;
- GERONTO-logy

NOTE: not to be confused with the Latin root GER- ‘carry’ of List 7.

GNATH- (γνάθος)

‘jaw’

- dys-GNATH-ic, pertaining to improperly developed jaws;
- GNATHO-THECA, the horny outer covering of a bird’s lower jaw

GNO- (γνώμα; γινώσκω)

‘to know’

- BAR-a-GNO-sis; loss of perception of weight;
- AUTO-TOP-a-GNO-sia, loss of ability to orient parts of one’s own body

GRAPH-, GRAM- (γράφω; γράμμα)

‘to write’; ‘thing written’

- DROMO-GRAPH, instrument for registering the velocity of blood current

HEPAT-, HEPAR- (ήπαρ, ήπατος)

‘liver’

- HEPAR-in, a substance or mixture of substances occurring in liver and other tissues having the property of prolonging the clotting time of blood;
- HEPAT-itis, inflammation of the liver

HOD-, OD- (ὁδός)

‘road’, ‘way’

- HODO-phobia, fear of travel;
- UR-OD-eum, a tract for carrying urine

KINE- (CINE-) (κινέω)

‘to move’

- a-KIN-AESTHE-sia, loss of muscle sense or sense of movement;
- eu-KINE-sia; normal power of movement;
- TELE-KINE-sis; the alleged ability to move objects without touching them

LEX- (λέξις)

‘to read’

- BRADY-LEX-ia, abnormal slowness in reading;
- dys-LEX-ia, impairment of the ability to read

LECITH- (λέκιθος)

‘yolk’

- CENTRO-LECITH-al, having the yolk aggregated in the centre;
- LECITH-in describes a group of yellow-brown fatty substances first isolated in egg yolks

MNE- (μνήμα; μμνήσκω)

‘to remember’

- a-MNE-sia, loss of memory;
- ACOU-st-a-MNE-sia, inability to remember sound;
- AUTO-ana-MNE-sia; history related by the patient

MORPH- (μορφόω)

‘form’

- meta-MORPHO-sis; changing form;
- PHYLLO-MORPHO-sis; variation of leaves in different seasons

MY-, MYS-, MYOS- (μῦς, μύος)

‘muscle’

- MYO-CHROME, any muscle pigment;
- MY-ENTER-ic;
- MYO-CARDI-al

NEPHR- (νεφρός)

‘kidney’

- peri-NEPHR-ium, the connective or adipose tissue surrounding a kidney

ODONT- (ὀδοῦς, ὀδόντος)

‘tooth’

- ex-ODONT-ist, a specialist in tooth extraction;
- pros-TH-ODONT-ia; the replacement of teeth by artificial means, a branch of dentistry

OPHTHALM- (ὀφθαλμος)

‘eye’

- MEGAL-OPHTHALM-us or MEG-OPHTHALM-us, excessive largeness of the eyes

OSM- (ὀσμή)

‘smell’

- an-OSM-ia, absence of sense of smell;
- MACR-OSM-atic, possessing a highly developed sense of smell

OST(E)- (ὀστέον)

‘bone’

- OSTEO-DERM-ia, bony formations in the skin;
- OSTE-ana-GENE-sis, regeneration of bone

NOTE: don’t confuse with Latin root OST- ‘door’ of List 8.

EC-, (OEC-, OEK-), OIK-, OIC- (οἶκος)

‘house’

- ECO-nomy;
- ECO-logy, that part of biology which deals with the relationship between organisms and their surroundings;
- GYN-OEC-ium, pistils, carpels and female organs of a flower

NOTE: not to be confused with the prefix ec- ‘out’ above.

PHIL- (φίλος)

‘to love’, ‘have an affinity for’

- GEO-philous, living on or around earth;
- POLY-CHROMATO-PHIL-ism, capacity to be stained with more than one dye

PHOR-, PHER- (φέρω; φορά)

‘to bear’, ‘to go’

- eu-PHOR-ia, exaggerated feeling of well-being;
- meta-PHER-y, displacement of organs

PHYLL- (φύλλον)

‘leaf’

- PHYLLO-POD-ous, having leaflike swimming feet, as in branchiopods, (some shrimp, for instance)

PHYT- (φυτόν)

‘plant’, ‘growth’

- endo-PHYTE, a plant growing within another;
- ZOO-PHYTE, an animal resembling a plant, such as a sponge

PLAS(T)- (πλαστός)

‘to form’, ‘to mould’

- hyper-PLAS-ia, excessive formation of tissue;
- meta-PLAS-ia, transformation of one form of adult tissue to another

PLEX-, PLEG- (πληγή; πλήσσω--)
ἐπλεξα)

‘to strike’, ‘to paralyse’

- apo-PLEX-y, sudden paralysis with loss of consciousness, when a blood vessel in the brain breaks or is blocked

NOTE: don’t confuse with Latin root PLEX- ‘braid’ of List 9

POD-, -PUS (πούς, ποδός)

‘foot’

- CEPHALO-POD; mollusc with sucker-bearing arms on its head, such as an octopus

PROCT- (πρωκτός)

‘anus’, ‘rectum’

- PROCTO-logy; medical specialty concerned with the anus, the rectum and the sigmoid colon

SOM-, SOMAT- (σῶμα, σώματα)

‘body’

- SOM-AESTHE-sia, sensibility to bodily sensations;
- GYMNO-SOMAT-ous, having no shell or mantle, as certain molluscs

STOL-, STAL-, -STLE (στάλσις; στέλλειν)

‘to send’, ‘to contract’

- peri-STAL-sis, rhythmic contraction of the alimentary canal that sends its contents downward;
- ana-STAL-sis, its opposite, the same as anti-peri-STAL-sis;
- sy-STOLE, contraction of the heart

STOM-, STOMAT- (στόμα, στόματα)

‘mouth’, ‘opening’

- STOMAT-itis; inflammation of the mouth, not the stomach;
- ENTERO-stomy; operation to form an opening into the intestine;
- MICRO-STOME, a small opening or orifice

THE- (τίθημι)

‘to put’, ‘to place’

- ALL-en-THE-sis, introduction of foreign substance into the body;
- meta-THE-sis, a chemical reaction with an exchange of radicals

THEC- (θήκη)

‘case’, ‘sheath’

- THECA, spore or pollen case;
- THECA-PHORE, a structure on which a theca is borne;
- THEC-ODONT, having teeth in sockets

THERM- (θερμός)

‘heat’

- a-dia-THERM-ancy, imperviousness to heat waves;
- hyper-THERM-algesia, abnormal sensitivity to heat

TOM- (τομή)

‘cut’, ‘section’ (enTOM-, ‘insect’)

- LITHO-TOM-ous, stone-boring, as certain molluscs

TOP- (τόπος)

‘place’

- a-TOPO-GNO-sia, lack of ability to locate a sensation accurately;
- OST-ec-TOP-y, displacement of a bone

TROP-, TREP- (τροπή; τρέπω)

‘to turn’, ‘response to stimulus’

- apo-TROP-aic; intended to avert evil;
- ap-HELIO-TROP-ism, turning away from the sun;
- TREP-omena, a genus of spiral bacteria, including *Trepomena pallidum*, which causes syphilis.

TROPH- (τροφή)

‘nourishment’, ‘development’

- AUTO-TROPH, organism capable of self-nourishment;
- TROPHO-TROP-ism, tendency of an organism to turn towards its food supply;
- dys-TROPH-y; deficiency of nourishment

UR- (ούρον)

‘urine’, ‘urinary system’

- UR-EM-ic, describes the presence of urine in the blood;
- UR-OD-eum, a tract for carrying urine;
- URE-ter, the duct by which urine passes from the kidney to the bladder or cloaca (URE-, ‘to urinate’)

NOTE: don’t confuse this one with the homonymous UR- ‘tail’ to be learned in List 3

ZO- (ζῷον)

‘animal’, ‘living being’

- ZOO-GAM-y, sexual reproduction in animals;
- ZOO-PHYTE
- ZOO-logy

Vocabulary List 2

Greek Noun-Forming Suffixes

-ter (or -re, after a root ending in -t, from French influence) (-τηρ)

‘means of’, ‘place of’

- Ureter, sceptor, sphincter, crater, theatre

-ist, -ast (-ιστης)

‘one who’

- Antagonist, gymnast, psychiatrist, bacteriologist

-te, -t (pl. -tes) (-της)

‘one who’, ‘that which’,

- Prophet, gemete, antidote, diabetes

-ician (from French -icien)

‘specialist in’, ‘practitioner of’

- Pediatrician, dietician, musician

-ia, -y (-ια)

‘state of’, ‘condition of’, ‘quality of’

- Hysteria, neuralgia, agony, philosophy

-ism, -ismus (-ισμος)

‘condition of’ (‘belief in’)

- Alcoholism, botulism, metabolism, laryngismus, strabism

-sis, -sia, -sy, -se (-σις)

‘act of’, ‘process of’ (sometimes the result of the process)

- Synthesis, diagnosis, amnesia, anaesthesia, ecstasy,

NOTE: nouns created with this suffix often also form adjectives with the -tic, -stic, suffix

‘pertaining to the act or process of’,

e.g. synthetic, analytic

-ma, -m, -me, -mat- (-μα, -ματος)

‘result of the act of’

- Cinema, drama, stigma, schism, theme

-oma, -omat- (-ομα, -οματος)

denoting tumours and other abnormal growths

- Melanoma, carcinoma, haematoma, glaucoma,
- NOTE: When followed by another element, the form is -omat-, e.g. melanomatous.

NOTE: this ending originally in Greek (-ωμα) was just a way to make any noun. In the 16th and 17th centuries, it was favoured by doctors for describing different medical conditions, and in the 19th century it began being used for cancers especially.

-osis (-ωσις)

‘diseased condition of’, ‘act of’, ‘process of’

- Psychosis, neurosis, hypnosis

-itis (-ιτις)

‘inflammation of’, ‘inflammatory disease of’

- Appendicitis, arthritis, tonsillitis

-in (-inus)

‘chemical substance’

- antitoxin, insulin, epinephrine

NOTE: Originally a Latin suffix, it was brought into German and then specially used in chemistry, where it was combined with many Greek roots.

-ium (-ιον → -ium)

‘part’, ‘lining or enveloping tissue’, ‘region’

- Perinephrium (*the connective and fatty tissue about the kidney*),

epigastrium (*the upper and middle region of the abdomen*)

-us (-ος → -us)

‘condition’, ‘person’

- anotus (*a Sphenomorphus anotus is a lizard without external ears*);
Hydrocephalus (*a condition in which fluid accumulates in the brain*)

-idae, -ida, -id (-ιδ-)

‘descended from’, ‘related to’

- Acaridae, arachnida/arachnid

Greek Compound Suffixes II (Noun-Forming)**-aemia, (-emia) (= (H)AEM/(H)EM- + -ia)**

‘condition of the blood’, ‘congestion of blood’

- anaemia, leukaemia, anoxaemia

-logy (= LOG- + -y)

‘science of’

- physiology, cardiology, psychology

-lysis (= LY- + -sis)

‘dissolution of or by’ (‘surgical division or separation’)

- hydrolysis, nephrolysis, electrolysis

-mania (= MAIN- + -ia)

‘madness for or about’

- kleptomania, dipsomania, egomania, monomania

NOTE: the Greek root MAIN- used here means ‘fury, anger.’ It is not learned as a separate root in this class since it is mainly either used in this compound suffix today, or as the stand-alone noun ‘mania.’

-pathy (= PATH- + -y)

‘disease of’, ‘treatment of disease of or by’

- osteopathy, neuropathy, hydrotherapy

-phobia (= PHOB- + -ia)

‘abnormal fear of’

- claustrophobia, agoraphobia, hydrophobia

NOTE: the Greek root PHOB- used here means ‘fear.’ It is not learned as a separate root in this class since it is mainly used in this compound suffix today.

-therapy (= THERAP- + -y)

‘treatment of or by’

- chemotherapy, psychotherapy, heliotherapy

NOTE: This one is taken straight from the Greek noun *θεραπεία*, which means ‘service, healing-service.’ It is, of course, used as a stand-alone noun in English today.

-tomy (= TOM + -y)

‘surgical operation on’, ‘surgical cutting of’

- glossotomy, gastrotomy, lobotomy

-ectomy (= ec- + TOM- + -y)

‘surgical operation’, ‘surgical removal of’

- appendectomy, tonsillectomy

-uria (= UR- + -ia)

‘condition of the urine’

- haematuria, acetonuria, noctambulminuria

-hedron

‘solid figure having a (specified) number of faces’

- icosahedron, dodecahedron

NOTE: This suffix is taken directly from Greek, where the suffix *-εδρον*, derived from the noun *ἔδρα* (‘seat, position’), was used in geometry to denote figures.

-iasis (= -ia + -sis) (-ασις)

‘diseased condition’; often refers to an infestation by parasites

- psoriasis, amebiasis, elephantiasis

NOTE: Greek especially used the suffix *-ασις* for nouns describing infestation, hence its modern usage.

-meter and -metry (= METR- + -re / METR- + -y)

‘instrument for measuring’, ‘measure’ and ‘art or science of measuring’;

- thermometer, anemometer, perimeter, telemetry, optometry, photometry

NOTE: the root METR- ‘measure’ is basically only used today within one of these compound suffixes. Don’t confuse it with the homonymous root METR- ‘uterus’ of List 3. The difference in Greek is the vowel length: *μετρ-* + *μητρ-* respectively.

-nomy (= NOM- + -y)

‘science of’, ‘system of laws governing’, ‘rules for the direction of’

- agronomy, astronomy, economy, autonomy

NOTE: the root NOM- ‘law’ is basically only used today within this compound suffix and so is not learned separately. Don’t confuse it with the homonymous Latin root NOM- ‘name’ of List 6.

-plasty (PLAST- + -y)

‘formation’, ‘plastic surgical operation’

- arthroplasty, anaplasty, hysteroplasty

NOTE: the root PLAST- ‘mold, form’ is basically only used today within this compound suffix.

-rrhoea (RRH- + -ia)

‘flux’, ‘abnormal flow or discharge of’

- diarrhoea, gonorrhoea, logorrhoea

NOTE: the spelling is so because the whole Greek word *ῥοία*, “a flowing” is used, not the root alone.

-stomy- (STOM- + -y)

‘the making of a surgical opening’

- gastrostomy, arthroscopy, hepaticostomy

Greek Diminutive Suffixes (Noun-Forming)

-ium, -ion (-ιον)

‘little’

- BACTER-ium, ‘little rod’ (pl. *bacteria*)
- POD-ium, ‘little foot’ (tube foot of echinoderm);
- THEC-ium, ‘little case’ (the spore-bearing layer in fungi);
- STOM-ion, ‘little mouth’ (the midpoint of the oral fissure determined with the lips closed)

-idium, -idion (-ιδιον)

‘little’

- CONI, ‘dust’ + -idium = conidium, a spore produced asexually by various fungi;
- BAS-, ‘base’ + -idium = basidium, a microscopic club-shaped spore-bearing structure produced by certain fungi;
- PLAST-, ‘to mould’ + -idion = plastidion, any of various small

bodies of specialized protoplasm lying in the cytoplasm of cells

-arium, -arion (-αριον)

‘little’

- CON-, ‘cone’ + -arium = conarium, pineal body;
- HIPPI-, ‘horse’ + -arion = Hipparion, a genus of extinct three-toed mammals related to horses

-isk, -iscus (-ισκος)

‘little’

- ASTER-, ‘star’ + -isk = asterisk;
- LEMN-, ‘ribbon’ + -iscus = lemniscus, a secondary sensory pathway of the central nervous system;
- MEN-, ‘moon’ + -iscus = meniscus, a crescent or crescentic body

Greek Verb-Forming Suffixes

-ize (-ιζειν)

‘to make’, ‘to treat’, ‘to do something with’

- Carbonize =
CARBON-, ‘coal’ + -ize
- Synchronize =
syn- + CHRON-, ‘time’ + -ize
- Antagonize =
ant(i) + AGON-, ‘to struggle’ + -ize

-ate (-atus, Latin, used with Greek roots)

‘to make’, ‘to treat’, ‘to do something with’

- Gyrate =
GYR-, ‘circle’ + -ate = gyrate;
- Aerate =
AER-, ‘air’ + -ate = aerate;
- Dehydrate =
de- + HYDR- + -ate = dehydrate

Greek Roots II

ACANTH- (ἄκανθος)

‘thorn’, ‘prickle’

- ACANTH-AESTHE-sia, a sensation as of pricking with needles;
- ACANTHO-CLAD-ous, having spiny branches

ACR- (ἄκρα)

‘extremity’, ‘summit’

- ACRO-MICR-ia, underdevelopment of the extremities and of the skull as contrasted with visceral development;
- ACRO-GER-ia, premature aging of skin of the hands and feet

ACTIN- (ἄκτις, ἄκτινος)

‘ray’

- ACTINO-GEN-ic, producing radiation;
- ACTINO-STOME, mouth of the sea anemone, or five-rayed oral aperture of the starfish

AER- (ἄήρ)

‘air’, ‘gas’

- AERO-CYST, an air vesicle of algae;
- AERO-CYSTO-SCOP-y, examination of the interior of the urinary bladder with a cystoscope, with the bladder distended with air;
- AERO-PHYTE, a plant which grows attached to an aerial portion of another plant

AGON- (ἄγών)

‘contest’, ‘to struggle’

- AGON-y;
- AGON-ize;
- AGON-ist, (in anatomy) a muscle whose contraction moves a part of the body directly, (in biochemistry) a substance which initiates a physiological response when combined with a receptor

AMYGDAL- (ἀμυγδάλη)

‘almond’, ‘tonsil’

- AMYGDAL-itis; inflammation of the tonsils, tonsillitis;
- AMYGDALAE, almond-shaped structures in the medial temporal lobes of the brain, responsible for memory and emotional reactions

AMYL- (ἄμυλον)

‘starch’

- AMYLO-LYSIS, the digestion of starch or its conversion to maltose;
- AMYLO-PLAST, a leucoplast or colourless, starch-forming granule

ANDR- (ἀνήρ, ἀνδρός)

‘man’, ‘male’

- ANDRO-GYN-y, hermaphroditism;
- ERG-at-ANDR-ous, having worker-like males

ANTHROP- (ἄνθρωπος)

‘human being’

- ANTHROPO-logy;
- ANTHROPO-MORPH-ism;
- ANTHROPO-philic, showing a preference for human beings over other animals

ARGYR- (ἄργυρος)

‘silver’

- ARGYR-ia, the dusty grey or bluish discolouration of skin and mucous membrane produced by the prolonged administration or application of silver preparations;
- HYDR-ARGYR-OPHTALMIA, ophthalmia due to mercurial poisoning

AUT- (αὐτός)

‘self’

- AUT-OPS-y;
- AUTO-CYTO-TOX-in, a cell toxin produced against the cells of one’s own body;
- AUT-ODONT, designating or pertaining to teeth not directly attached to jaws, as in cartilaginous fish;
- AUTO-PHAG-ia, self-consumption, emaciation; biting of one’s own flesh, as in dementia

BA- (βαίνω)

‘to step’, ‘to go’, ‘to walk’

- BASO-phobia, morbid fear of walking or of standing erect; basis; acrobat

BAR-; BARY- (βαρύς)

‘weight’, ‘pressure’; ‘heavy’

- BAR-AESTHE-sia, perception of weight or pressure;
- BAR-ODONT-ALG-ia, dental pain occurring in individuals exposed to decreased barometric pressures such as occur in high-altitude flying, also called
- AER-ODONT-ALG-ia

BLENN- (βλέννα)

‘mucus’

- BLENN-OPHTHALM-ia, catarrhal conjunctivitis;
- OLIGO-BLENN-ia, a deficient secretion of mucus

BLEPHAR- (βλέφαρον)

‘eyelid’

- a-BLEPHAR-y, congenital absence of the eyelids;
- BLEPHARO-plasty, operation for the restoration of the eyelids; sym-
- BLEPHAR-osis, adhesion of the eyelids to the globe of the eye or to each other

BROM- (βρῶμος)

‘stench’, ‘bromine’

- BROMO-DERM-a; skin eruption due to ingestion of bromides;
- BROM-in-ism, bromine poisoning; bromide

CARCIN- (καρκίνος)

‘cancer’

- CARCINO-GEN, any cancer-producing substance;
- MASTO-CARCIN-oma, malignant mammary tumour

CHEIL-, CHIL- (χεῖλος)

‘lip’

- a-CHEIL-ia, congenital absence of the lips

CHOL(E)- (χολή)

‘bile’, ‘gall’

- CHOL-AGOGUE, agent which stimulates the flow of bile from the liver;
- CHOLO-CHROME, any bile pigment; EU-CHOLIA, normal condition of the bile; choleric; melancholy

CHRON- (χρόνος)

‘time’

- HETERO-CHRON-ism, departure from typical sequence in time of formation of organs;
- ana-CHRON-ism

CLAD- (κλάδος)

‘branch’

- HETERO-CLAD-ic, describing a communication between branches of different arteries;
- PHYLLO-CLAD (or CLADO-PHYLL), a green, flattened or round stem that functions as a leaf, as in cacti.

CLAS- (κλάσις; κλάω)

‘to break’

- ARTHRO-CLAS-ia, breaking down of ankylosis of a joint;
- CARDIO-CLAS-is, rupture of the heart; iconoclast

COL- (κόλον)

‘colon’

- COLO-PROCTO-stomy, formation of a new passage between the colon and the rectum;
- para-COL-itis; inflammation of the tissue adjacent to the colon;
- PHREN-ico-COL-ic or PHRENO-COL-ic, pertaining to the diaphragm and the colon

NOTE: not to be confused with the similar COLL(A)- ‘glue of List 5 or the homonymous Latin roots COL- ‘inhabit’ and COLL- ‘neck’ of List 7.

COPR- (κόπρος)

‘excrement’

- COPR-OD-aeum, the division of the cloaca which receives the rectum (cf. UR-OD-aeum);
- COPRO-LITH, a hard mass of faecal matter in the bowels

CRANI- (κράνιον)

‘cranium’

- amphi-CRAN-ia, headache affecting both sides of the head, as opposed to hemi-CRAN-ia;
- CHONDRO-CRANI-um, the embryonic cartilaginous cranium;
- peri-CRANI-um, the periosteum on the outer surface of the cranial bones

CRI-; CRIN- (κρίνω)

‘to separate’, ‘to distinguish’; ‘to secrete’

- epi-CRIT-ic, of sensory nerve fibres permitting very fine distinctions of temperature or touch; endo-CRINE, secreting internally;
- ENTERO-CRIN-in, a hormone produced by the intestinal mucosa stimulating the glands of the small intestine; critic; criterion

CRY-, CRYM- (κρύος; κρυμός)

‘cold’, ‘ice’

- CRY-AESTHE-sia, abnormal sensitiveness to cold

CYST- (κύστις)

‘bladder’, ‘cyst’, ‘sac’

- CYST-itis, inflammation of the urinary bladder;
- HAEMATO-CYST; a cyst containing blood;
- POLY-CYST-ic, containing many cysts

CYT- (κύτος)

‘cell’

- CHROMO-CYTE, any coloured cell;
- CYTO-DERM, in botany, a cell wall;
- CYTO-STOME, the oral aperture of a unicellular organism

DACRY- (δάκρυον)

‘tear’ (i.e. from crying, etc.)

- DACRYO-CYST-itis, inflammation of the lacrimal sac

DIPS- (δίψα)

‘thirst’

- a-DIPS-ia, absence of thirst, avoidance of drinking;
- DIPSO-phobia, a fear of drinking

DREPAN- (δρεπάνη)

‘sickle’

- DREPANO-CYTE, a crescent-shaped cell

DYNAM-, DYN- (δύναμις)

‘power’

- a-DYNAM-ia, loss of vital strength or muscular power, weakness;
- DYNAMO-meter, an instrument for the measurement of muscular strength

EME- (έμέω)

‘to vomit’

- hyper-EME-sis, excessive vomiting;
- EME-tic, having the power to evoke vomiting

ERYTHR- (έρυθρός)

‘red’

- an-ERYTHRO-BLEPS-ia or an-ERYTH-OPS-ia, impaired colour perception of red, red blindness;
- ERYTHRO-PHYLL, a red colouring matter in some leaves and red algae

EURY(S)- (εὐρύς)

‘wide’

- EURY-PHAG-ous, subsisting on a wide variety of foods;
- PROCT-EURY-nter, an instrument for dilating the anus or rectum

GASTR-, GASTER- (γαστήρ, γαστρός)

‘stomach’, ‘belly of a muscle’

- GASTRO-POD, a mollusc with ventral muscular disc adapted for creeping;
- meta-GASTR-ic, pertaining to posterior gastric regions

GLYC-, GLYCOS- (γλυκύς; γλεῦκος)

‘sugar’, ‘glucose’

- GLYCO-LYSIS, the process of conversion of carbohydrate in tissue into pyruvic acid or lactic acid;
- hyper-GLYCOS-uria, the presence of excessive amounts of sugar in the urine

GYMN- (γυμνάς)

‘naked’, ‘uncovered’

- GYMNO-SOMAT-ous;
- GYMNO-CARP-ous, with naked fruit (applicable to lichens with uncovered apothecia);
- GYMNO-RHIN-al, having nostril region not covered by feathers, as some birds

GYN(E), GYNAEC- (GYNEC-) (γυνή, γυναικός)

‘female’

- GYNAECO-logy;
- ERG-ato-GYNE, female ant resembling a worker;
- GYN-ANDR-ous, having stamens fused with pistils, as some orchids;
- GYNAECO-MAST-ia, enlargement of the mammary gland in the male

HAEM-, HAEMAT-, (HEM-, HEMAT-) (αἷμα, αἷματος)

‘blood’

- a-CARDIO-HAEM-ia, lack of blood in the heart;
- HAEMATO-BI-c, living in blood;
- HAEMATO-PHAG-ous, pertaining to a blood-sucking insect

HELIC-, HELIX (ἑλιξ, ἑλικος)

‘spiral’

- HELIX, the rounded, convex margin of the ear;
- ant-HELIX, the curved ridge of the pinna just anterior to the helix

HELMINTH- (ἑλμινς, ἑλμινθος)

‘worm’

- ant-HELMINT-ic, destructive to worms;
- HELMINTHO-logy, the study of parasitic worms;
- HELMINTH-oma, a tumour caused by the presence of a parasitic worm

HETER- (ἕτερος)

‘other’, ‘different’

- HETERO-CHROM-ia, a difference in coloration in two parts or structures that are normally alike, as the the irises of the eyes;
- HETERO-PHOR-ia, any tendency of the eyes to turn away from the position correct for binocular vision;
- HERTERO-PHOR-ALG-ia, pain caused by heterophoria

HIDRO(S)- (ιδρώς)

‘sweat’

- syn-HIDROS-is, concurrent sweating; the association of perspiration with some other condition;
- ACRO-hyper-HIDROS-is, increased perspiration of the hands and feet;
- CHROM-HIDROS-is, a rare condition in which the sweat is coloured

HIST-, HISTI- (ιστός)

‘tissue’

- HISTO-KINE-sis, movement that takes place in the minute structural elements of the body;
- HISTO-meta-PLAS-tic, causing the transformation of one tissue into another type

HYDR- (ὑδωρ, ὕδρος)

‘water’, ‘fluid’

- HYDR-ARTHRO-sis, accumulation of fluid in a joint;
- HYDRO-TROP-ism, response to the stimulus of water

HYGR- (ὕγρως)

‘moisture’

- HYGRO-KINE-sis, movement in response to changes in humidity;
- HYGRO-STOM-ia, chronic salivation

HYSTER- (ὕστέρα)

‘uterus’, ‘hysteria’

- HYSTER-ia;
- HYSTERO-tomy, incision of the uterus

IATR- (ιατρός)

‘physician’, ‘medical treatment’

- PSYCH-IATR-y;
- POD-IATR-ist;
- IATRO-GEN-ic, induced by a physician; effect of physician’s words or actions upon a patient

ICHTHY- (ιχθύς)

‘fish’

- ICTHY-ODONT, a fossil fish tooth;
- ICTHYO-TOX-ismus, food poisoning from fish

IRID-, IRIS- (ἶρις, ἱριδος)

‘iris’, ‘rainbow’

- IRIDO-CYTE, a special cell responsible for the iridescence (!) of many fishes;
- IRIDO-dia-lysis, the separation of the iris from its attachments;
- IRIDO-KINE-sia, any movement of the iris;
- IRIDO-PLEG-ia, paralysis of the sphincter pupillae of the iris

ISCH- (ἴσχω)

‘to suppress’

- ISCHO-MEN-ia, suppression of the menstrual flow;
- ISCH-uria, retention or suppression of the urine

NOTE: careful not to confuse with similar ISCHI- ‘hip’ of List 3.

LAPAR- (λαπάρη)

‘abdomen’, ‘soft part of the body between the ribs and abdomen’

- LAPARO-TRACHELO-tomy; low caesarian section

LIP- (λίπος)

‘fat’

- LIPO-CHROME or CHROMO-LIPO-id, any one of the group of fat-like substances containing a pigment or colouring matter and occurring in natural fats such as egg yolks

LITH-, -LITE (λίθος)

‘stone’

- CRYO-LITE, sodium-aluminium fluoride, named from its icy appearance;
- DACRYO-LITH, a calcareous concretion in the lacrimal passages;
- LITHO-PHYLL, a fossil leaf or leaf impression

LOG- (λόγος)

‘word’, ‘speech’, ‘reason’

- ana-LOG-ous; dys-LOG-ia, difficulty in expression of words by speech;
- LOGO-PLEG-ia, loss of power of uttering articulate speech

LY- (λύω)

‘to loosen’, ‘to dissolve’, ‘to break up’

- DERMATO-LY-sis, abnormal laxation of the skin;
- LITHO-dia-lysis, solution of calculi in the urinary bladder; breaking up of a vesical calculus before its removal;
- LY-sin, a cell-dissolving substance

MAST-, MAZ- (μαστός; μαζός)

‘breast’

- ACRO-MAST-itis, inflammation of a nipple;

- hyper-MAST-ia, overgrowth of the mammary gland;
- a-MAST-ia, congenital absence of the mammae

MELAN- (μέλας, μέλανος)

‘black’, ‘dark’

- MELAN-CHOL-y;
- MELAN-in, a dark brown or black animal or plant pigment;
- MELAN-IDR-osis, a form of chromhidrosis in which the sweat is dark coloured or black

MEN- (μήνη)

‘moon’, ‘menstruation’

- MENO-PAUSE; ISCHO-MEN-ia

MYI- (μύια)

‘fly (the insect)’

- MYI-[i]asis, a disease caused by the invasion of fly larvae;
- OPHTHALMO-MYI-[i]asis, disease due to the presence of the larvae of flies in the eye

NECR- (νεκρός)

‘corpse’, ‘dead tissue’

- NECRO-TOX-in, a toxin produced by the death of cells;
- NECRO-PHAG-ous, eating carrion

OLIG- (ολίγος)

‘few’, ‘scanty’

- OLIG-ANDR-ous, having few stamens;
- OLIGO-HYDR-uria, urine with a relative diminution of water, highly concentrated urine

OP-, OPT- (ὄψις; ὀπτικά)

‘to see’

- CHROMATO-PSEUD-OP-sis, colour blindness;
- em-METR-OP-sia, normal or perfect vision, wherein parallel rays are focussed exactly on the retina without the effect of accommodation;
- PROSOP-a-GNO-sia, inability to recognize faces (PROSOP-, ‘face’)

ORTH- (ὀρθός)

‘straight’, ‘correct’

- an-ORTH-ite, feldspar not at right angles in cleavage, oblique cleavage;
- ORTH-optic, pertaining to normal binocular vision

OT- (ὄτις, ὠτός)

‘ear’

- di-OT-ic, binaural, pertaining to both ears;
- OTO-CYST, in invertebrates, an auditory vesicle, otocell or otidium, or in vertebrates, an embryonic auditory vesicle;
- OTO-LITH, calcareous particles or platelike structures found in the auditory organ of many mammals

PAED- (PED-) (παῖς, παιδός)

‘child’ (-pedia, ‘instruction’)

- PED-AGOG-y;
- PAED-IATR-ics;
- PAEDO-MORPH-ic, pertaining to retention in the adult of youthful and juvenile characteristics

PATH- (πάθος)

‘disease’, ‘suffering’, ‘feeling’

- sym-PATH-y;
- IDIO-PATH-ic, pertaining to a primary disease, i.e., one not the result of any other disease, but of spontaneous origin, or a disease for which no cause is known;
- PATHO-MIME-sis, imitation of the symptoms and signs of a disease

PHA-, PHAN- (φαίνω)

‘to appear’, ‘to show’

- dia-PHANE, transparent investing membrane of an organ or a cell;
- MYO-PHAN, muscle-like, applies to striation of protozoa;
- MENO-PHAN-ia, first appearance of the menses

NOTE: don’t confuse with PHA- ‘speak’ of List 4.

PHAG- (φαγεῖν)

‘to eat’

- PHAGO-CYTE, colourless blood corpuscle which tends to ingest foreign particles;
- PHYLLO-PHAG-ous, feeding on leaves

PHREN- (φρήν)

‘mind’, ‘diaphragm’

- PHREN-ic, pertaining to the mind or the diaphragm;
- GASTRO-PHREN-ic, pertaining to the stomach and the diaphragm, as the gastrophrenic ligament;
- HEBE-PHREN-ia, a type of schizophrenia characterized by extreme mannerisms, often caricaturing adolescent behaviour

POLY- (πολύς)

‘many’, ‘much’

- POLY-AESTHE-sia, an abnormality of sensation in which a single touch is felt in two or more places at the same time;
- POLY-PHAG-ous, eating various kinds of food; POLY-POD, furnished with many feet or legs

PSYCH- (ψυχή)

‘mind’, ‘soul’

- PSYCHO-logy;
- PSYCH-IATR-y

PY- (πύον)

‘pus’

- HYDRO-PYO-NEPHRO-sis, distention of the pelvis of the kidney with urine and pus;
- PYO-RRHE-a, a purulent discharge

RHE-, -RRH (ρέω)

‘to flow’, ‘current’

- dia-RRHOE-a;
- CRYPTO-RHE-tic, secreting internally, endocrine;
- RHEO-CARDIO-GRAPH-y, recording of differences of electrical conductivity of the body synchronous with the cardiac cycle;
- RHEO-PHORE, an electrode

RHIN-, -RRHIN- (ρίς, ρινός)

‘nose’

- amphi-RHIN-al, having or pertaining to two nostrils;
- GYMNO-RHIN-al, with nostril region not covered by feathers, as in some birds;

- RHIN-ENCEPHAL-on, that portion of the cerebrum concerned with olfactory impulses;
- RHINO-THECA, the sheath of the upper jaw of a bird

SCOP- (σκοπός; σκοπέω)

‘to view’

- CRYO-SCOPE, device for determining the freezing point of any liquid; endo-SCOPE, instrument used to examine an internal body cavity or viscus through its natural opening;
- SCOPO-phobia, morbid dread of being seen

NOTE: don’t confuse with Latin root SCOP- ‘broom’ of List 10

STA- (στάσις; ἵστημι --> ἕστην)

‘to stand’, ‘to stop’, ‘to fix’, ‘to regulate’

- a-cata-STA-sia, irregularity, nonconforming to type;
- BLEPHARO-dia-STA-sis, excessive separation of the eyelids, inability to close the eyelids completely;
- HAEMO-STA-sis, the stopping of a flow of blood

NOTE: Very similar to the Latin root STA- “stand” of List 9.

STYL- (στῦλος)

‘pillar’

- STYLE, the slender upper part of the pistil;
- sy-STYL-ous, in botany, with coherent styles

TAC-, TAX- (τάξις; τάττω)

‘to arrange’, ‘to put in order’

- ANTHO-TAX-is, arrangement of flowers on an axis;
- PHYLLO-TAX-is, arrangement of leaves on an axis or stem;
- a-MYO-TAX-ia, muscular ataxia or incoordination of spinal or cerebellar origin

TARS- (ταρσός)

‘instep’, ‘edge of the eye’

- TARS-ALG-ia, pain, especially of neuralgic character, in the tarsus of the foot;
- TARSO-plasty, plastic surgery of the eyelid

THANAT- (θάνατος)

‘death’

- THANTO-id, resembling death;
- THANATO-logy, the study of the phenomenon of organic death;
- THANATO-phobia, a morbid fear of death

Vocabulary List 3

Greek Roots III

ADEN- (ἀδὴν)

‘gland’

- ADENO-PHORE, the stalk of a nectar gland;
- HETER-ADEN-ia, an abnormality in the formation or location of gland tissue

AGOG(UE)- (ἀγωγός)

‘inducing the flowing’, ‘expelling’ (orig. ‘to lead’ or ‘to drive’)

- CHOL-AGOGUE, agent promoting the flow of bile;
- GALACT-AGOGUE, an agent that promotes the flow of milk;
- HELMINTH-AGOGUE, agent expelling worms from the body, an ant-HELMINT-ic

-AGRA (ἄγρα; ἄγρῆ)

‘painful seizure’

- ARTH-AGRA, muscular pain in the joints;
- MEL-AGRA, muscular pain in the limbs

ANGI- (ἄγγειον)

‘vessel’

- ANGIO-STOMAT-ous, narrow-mouthed (applicable to molluscs and snakes with nondistensible mouths);
- GAMET-ANGI-um, a structure producing sexual cells

ARACHN- (ἀράχνης)

‘spider’ (occasionally ‘arachnoid membrane’)

- ARACHN-ida, a large class of ARTHRO-POD-a which includes spiders and mites;
- ARACHN-idium, device by which a spider web is produced

ARCH(E)- (ἀρχή)

‘ancient’, ‘beginning’, ‘primitive’

- ARCH-ENTER-on, embryonic alimentary cavity

ASC- (ἄσκός)

‘bag’

- ASC-us (pl. asci), a sac, typically cylindrical in shape, in which the spores of ascomycete fungi develop;
- ASCO-genous, producing asci;
- ASCO-MYCETE, a fungus whose spores develop within asci

ASTR-, ASTER- (ἀστήρ, ἀστέρος)

‘star’

- ASTER, the radiating structure surrounding the centrosome of a cell, seen at the beginning of mitosis;
- CYT-ASTER, the starlike system of cytoplasmic radiations surrounding the central body during mitosis;
- ASTER-oid, one of the small ‘planets’ between Jupiter and Mars

AUX(E)- (αύξησης)

‘increase’

- AUXE-sis, increase in size or bulk;
- AUX-in, a plant hormone which governs cell extension or growth;
- AUXO-BAR-ic, increasing pressure, denoting development of pressure in the cardiac ventricle

BLAST- (βλαστός)

‘bud’, ‘germ’, ‘embryonic cell’

- ASTRO-BLAST, a primitive cell which develops into an ASTRO-CYTE;
- LIPO-BLAST, a formative fat cell

BLEP- (βλέπω)

‘to see’

- a-BLEP-sia, loss or absence of vision;
- MONO-BLEP-sia, a condition in which either eye is stronger than both together, or a form of colour blindness in which only one colour can be perceived

BRACHI- (βραχίων)

‘arm’

- BRACHI-al, relating to the arm;
- MACRO-BRACH-ia, excessive development of the arms;
- MONO-BRACHI-us, an individual congenitally lacking one arm;
- BRACHIO-SAUR-us, a dinosaur with forelegs much longer than the hind legs

NOTE: Not to be confused with the similar BRACHY- ‘short’ of List 4

BRANCHI- (βράγχιον)

‘gills’

- BRANCHI-a, the gills of fish and some invertebrate animals;
- meta-BRANCHI-al, pertaining to or in the posterior gill region;
- PHYLLO-BRANCHI-a a gill consisting of numbers of lamellae or thin plates

CARP- (καρπός)

‘fruit’

- ACTINO-CARP-ous, of plants with flowers and fruit radially arranged;
- ANGIO-CARP-ic, having or being fruit enclosed within an external covering, opposite of GYMNO-CARP-ic

NOTE: not to be confused with the homonymous CARP- ‘wrist’ of List 5

-CELE (κήλη)

‘hernia’, ‘swelling’

- ENTERO-CELE, hernia containing a loop of intestine;
- HYDRO-MYELO-CELE, excessive accumulation of a fluid in the central canal of the spinal cord;
- GALACTO-CELE, a cystic tumour in the ducts of the breast;
- VARICO-cele, a mass of varicose veins in the spermatic cord

CENTE- (κεντέω)

‘to puncture’, ‘to prick’

- ENTERO-CENTE-sis, surgical puncture of the intestine;
- PNEUMONO-CENTE-sis, surgical puncturing of a lung;
- centre is also from this root (via *kentron*, ‘sharp point, stationary point of a pair of compasses’)

NOTE: not to be confused with the similar Latin root
CENT- ‘100’t of List 10

CHIR-, CHEIR (χείρ)

‘hand’

- CHIRO-PRACT-ic;
- CHIRO-GRAPH-y, handwriting;
- MEGALO-CHIR-ous, large-handed;
- POLY-CHEIR-ia state of having a supernumerary hand

CHLOR- (χλωρός)

‘green’, ‘chlorine’

- CHLORO-PLAST, a minute granule or plastid containing chlorophyll;
- CHLOR-osis, green sickness, a type of anemia;
- hypo-CHLOR-uria, diminution in the amount of chloride in the urine

COCC- (κόκκος)

‘berry-shaped organism’

- CYTO-COCC-us, nucleus of a fertilized egg;
- PYO-COCC-us, any pus-producing coccus;
- STREPTO-COCC-us, a genus of gram-positive, chain-forming bacteria

COEL(I)-, (CEL-), -COEL (κοιλία)

‘cavity’, ‘abdominal cavity’, ‘belly’

- COELI-ac, relating to the abdomen;
- COELIO-tomy, opening of the abdominal cavity;
- ENCEPHALO-COEL, cavity within the brain, cerebral ventricle (cf. encephalocele, a hernia of the brain)

COLP- (κόλπος)

‘vagina’, ‘womb’

- COLPO-SCOPE, a surgical instrument used to examine the vagina and the cervix of the womb;
- PYO-COLPO-CELE, a suppurating cyst of the vagina

CONI- (κόνις)

‘dust’

- CON-idio-PHORE, bearing condia, a fungal spore;
- OTO-CONI-um, one of minute crystals of calcium carbonate found in membranous labyrinth of the ear, or ear dust

COR(E)- (κόρη)

‘pupil of the eye’

- CORE-dia-STA-sis, dilatation of the pupil;
- CORE-LY-sis, the detachment of iritic adhesions to the lens or cornea;
- POLY-COR-ia, the existence of more than one pupil in an iris

CRA- (κράσις; κεράννυμι --) ἔκρησα)

‘to mix’

- CRA-sis, constitution, make-up;
- HAEMATO-dys-CRA-sia, diseased state of the blood;
- hypo-CRA-ter-iform, saucer-shaped

CYAN- (κύανος)

‘blue’

- CYANO-PHYLL, a bluish-green colouring matter in plants;
- CYAN-OP-ia *or* CYAN-OP-sia, a condition in which all objects seen are rendered blue

CYE- (κυέω)

‘to be pregnant’

- CYO-PHOR-ia, pregnancy, gestation;
- pseduo-CYE-sis, false or phantom pregnancy

DENDR- (δένδρον)

‘tree’

- RHODO-DENDR-on (RHODO-, rose-coloured);
- DENDR-ite or DENDR-on, a short branched extension of a nerve cell

DIDYM- (δίδυμος)

‘twin’, ‘testicle’

- ISCHIO-DIDYM-us, twins conjoined at the hip;
- DIDYMO-SPORE, a two-celled spore;
- DIDYM-itis, same as ORCH-itis

EO(S)- (ἠώς)

‘dawn or early age’, ‘rosy’

- EO-LITH-ic, relating to the earliest period of the Stone Age;
- EOS-in, red crystalline fluorescent dye

GALACT-, GALA- (γάλα, γάλακτος)

‘milk’

- GALACT-in, an amorphous substance derived from milk, a potent hormone stimulating lactation;
- GALACTO-RRHE-a, excessive flow of milk

GEU- (γεύω)

‘to taste’

- dys-GEU-sia, morbidity or distortion of the sense of taste;
- hyper-GEU-sia, abnormal acuteness of the sense of taste

GLOSS-, GLOT(T)- (γλῶσσα/γλῶττα)

‘tongue’, ‘language’

- BRADY-GLOSS-ia, slow speech due to difficulty in tongue movements;
- PHRENO-GLOTT-ismus, spasm of the glottis caused by disease of the diaphragm

GYR- (γῦρος)

‘circle’, ‘ring’

- GYR-oid-al, spiral in arrangement;
- GYR-ose, with undulating lines, sinuous;
- OPHTHALMO-GYR-ic, pertaining to or causing movements of the eye

HELI- (ἥλιος)

‘sun’

- HELIO-CENTR-ic;
- HELI-um;
- HELIO-TAX-is, locomotor or other response to stimulus of sunlight;
- HELIO-LITH-ic, marked by sun worship and erection of megaliths

HIPP- (ἵππος)

‘horse’

- HIPPO-POTAM-us;
- HIPPO-DROME;
- EO-HIPP-us, a genus of small, primitive horses;
- HIPP-UR-ic acid, an acid found in high concentration in the urine of herbivorous animals

HYAL- (ὑαλος)

‘glass’, ‘vitreous body of the eye’

- HYAL-in, a clear substance produced especially by the degeneration of epithelial or connective tissues;
- HYAL-oid, glassy or transparent (e.g. hyaloid membrane);
- HYLALO-MERE, clear, homogeneous part of the blood

IDI- (ἴδιος)

‘one’s own’, ‘peculiar’, ‘distinct’

- IDIO-BIO-logy, the branch of biology concerned with the study of organisms as individuals;
- IDIO-CHROM-atic, having a distinctive and constant coloration, used especially of minerals;
- IDIO-TYPE, individual genotype, set of all hereditary determinants of an individual

IS- (ἴσος)

‘equal’, ‘same’

- ISO-ZO-ic, inhabited by similar forms of life;
- ISO-metr-ic, pertaining to equality of measure

ISCHI- (ἰσχίον)

‘hip’

- ISCHIO-ALG-ia, pain in the hip or lower back, sciatica;
- SAUR-ISCH-ia, an order of class Reptilia distinguished by a pelvis;
- ISCHIO-DIDYM-us, twins conjoined at the hip

NOTE: careful not to confuse with similar ISCH- ‘suppress’ of List 2.

LAL- (λαλιά)

‘to talk’

- BRADY-LAL-ia, slowness of utterance;
- ENANTIO-LAL-ia, a disturbance in mental and speech function which prompts ideas and words opposite those presented as stimuli;
- RHINO-LAL-ia, a nasal tone in the voice due to undue closure or patulousness of the choanae

LARYNG- (λάρυγξ, λάρυγγος)

‘larynx’

- LARYNG-itis, inflammation of the larynx;
- LARYNGE-al, relating to the larynx;
- LARYNGO-logy, the branch of medicine that deals with the larynx and its diseases;
- LARYNGO-tomy, surgical incision into the larynx

LEI- (λεῖος)

‘smooth’

- LEIO-DERM-ia, condition of abnormal smoothness and glossiness of skin;
- LEIO-THRIX, an Asian bird of the babbler family

LEP-, LEPS- (λείπω; λήψις)

‘to seize’

- epi-LEP-sy;
- NARCO-LEP-sy, a condition characterized by a transient compulsive tendency to attacks of deep sleep;
- NYMPHO-LEP-sy, ecstasy of an erotic type, supposed to be caused by nymphs

MACR- (μακρός)

‘large’, ‘long’

- MACRO-CARP-ous, producing large fruit;
- MACRO-GLOSS-ia, enlargement of the tongue;
- MACR-OPS-ia, disturbance of vision in which objects seem larger than they are

MALAC- (μαλακός)

‘soft’

- MALACO-logy, study of molluscs;
- MALACO-philous, adapted to pollination by snails

MASTIG- (μάστιξ, μάστιγος)

‘whip’, ‘flagellum’

- MASTIG-ium, defensive posterior lash of certain larvae;
- HETERO-MASTIG-ate, having two different types of flagella (a *flagellum* is a slender thread-like structure, especially a microscopic whip-like appendage which enables many protozoa, bacteria, spermatozoa, etc. to swim)

MEGA-, MEGAL- (μέγας, μεγάλου)

‘large’, ‘one million’

- HYDRO-MEGA-THERM, a plant which must have much heat and moisture to develop fully;
- MEGAL-OP-ic, belonging to the megalops stage, i.e. a larval stage of certain crustaceans, conspicuous by large, stalked eyes;
- MEGA-PHYLL-ous, having relatively large leaves

MEL- (μέλος)

‘limb’

- GASTRO-MEL-us an individual with an accessory limb attached to the abdomen;
- a-MEL-us, person minus a limb or limbs

MENING- (μῆνιγξ, μήνιγγος)

‘membrane’, especially ‘meninges, membranes enveloping the brain and spinal cord’ (‘MENINX’)

- MENING-uria, presence or passage of membranous shreds in the urine;
- MENING-itis, inflammation of the membranes of the brain or spinal cord

MER- (μέρος)

‘part’

- MER-ONYM, a term which denotes part of something but which is used to refer to the whole of it;
- ADENO-MERE, that portion of a developing gland which will be responsible for its functioning;
- dys-MERO-GENE-sis, segmentation resulting in unlike parts

METR- (μήτρα)

‘uterus’

- HAEMATO-METR-a, an accumulation of blood or menstrual fluid in the uterus

NOTE: Don’t confuse it with the similar sounding compound Suffixes -meter and -metry of List 2. The difference in Greek is the vowel length: μετρ- (measure) + μητρ- (uterus).

MICR- (μικρός)

‘small’, ‘one millionth’

- hypo-MICRO-GNATH-us, an individual having an abnormally small lower jaw;
- MICRO-LITH-iasis, formation of very minute calculi;
- MICRO-MEL-ia, abnormal smallness of the limbs

MIS- (μῖσος)

‘hate’

- MIS-ANTHROP-y, a dislike of humankind;
- MISO-GYN-ist, a person who hates women;
- MISO-GAM-y, hatred of marriage

NOTE: not to be confused with the Latin Root MIS- ‘send’ of List 9

MOGI- (μόγις)

‘difficult’

- MOGI-LAL-ia, difficulty in speech, such as stuttering or stammering;
- MOGI-GRAPH-ia, writer’s cramp

MYC-, MYCET- (μύκης, μύκητος)

‘fungus’

- ACTINO-MYC-osis, a parasitic, infections, inoculable disease, affecting cows, pigs and sometimes humans;
- MYCO-DERM, a bacterial film formed during fermentation

MYEL- (μυελός)

‘spinal cord’, ‘marrow’

- HYDRO-MYEL-ia, a dilatation of the central canal of the spinal cord containing an increased quantity of cerebrospinal fluid;
- MENINGO-ENCEPHALO-MYEL-itis; inflammation of the meninges, brain and spinal cord

NARC- (νάρκη)

‘stupor’, ‘make numb’

- NARCO-LEP-sy;
- NARCO-tic, drug which produces a stupor, complete insensibility or sleep

NE- (νέος)

‘new’, ‘new and different form of’

- GLYCO-NEO-GENE-sis, the formation of carbohydrates from substances which are not carbohydrates;
- NEO-PLAS-m, any new growth, usually applied to a tumour, an aberrant new growth;
- NEO-phobia, dread of new scenes or novelties

NEUR- (νεῦρον)

‘nerve’, ‘nervous system’, ‘tendon’

- ARGYRO-NEUR-ous, with silver-coloured nerves or veins;
- CRYPT-NEUR-ous, with no definite or distinct nervous system;
- NEURO-ana-TOMY, the nervous system;
- NEURO-TOMY, the division of a nerve

NYCT- (νύξ, νυκτός)

‘night’

- NYCTI-TROP-ism, tendency of certain leaves to curl upward at night;
- NYCT-ALOP-ia, a condition characterized by an abnormal inability to see in dim light or at night;
- NYCTO-phobia, extreme or irrational fear of the night or of darkness

ODYN- (ὀδύνη)

‘pain’

- an-ODYNE;
- GLOSS-ODYN-ia, pain in the tongue;
- MY-ODYN-ia, muscular pain

OMPHAL- (ὀμφαλός)

‘navel’

- ACR-OMPHAL-us, centre of the umbilicus, or unusual prominence of the navel;
- OMPHALO-GENE-sis, development of the umbilical vesicle and cord

ONYCH- (ὄνυξ, ὄνυχος)

‘finger or toenail’, ‘claw’

- ACR-ONYCH-ous, having claws, nails or hoofs;
- ONYCHO-HETERO-TOP-ia, an anomaly consisting of the presence of abnormally situated nails

ONYM- (ὄνομα/ὄνυμα)

‘name’

- an-ONYM-ous;
- PSEUD-ONYM;
- hyp-ONYM, a generic name not based on a type species

OO- (ὄόν)

‘egg’

- OO-CYTE, a cell in an ovary which may undergo meiotic division to form an ovum;
- OO-CYST, a cyst containing a zygote formed by a parasitic protozoan such as the malaria parasite

ORCH(I)-, ORCHID- (ὄρχις; ὄρχιδιον)

‘testicle’

- syn-ORCH-ism, partial or complete fusion of the testes within the abdomen or scrotum;
- CRYPT-ORCH-ism, failure of the testes to descend;
- ORCHID-ectomy, surgical removal of the testicles, castration

PACHY- (παχύς)

‘thick’

- PACHY-DERM, a very large mammal with thick skin;
- PACHY-ACR-ia, condition marked by clubbing fingers and toes;
- PACHY-CLAD-ous, thick-branched;
- PACHY-SANDR-a, an evergreen creeping shrubby plant of the box family

PAN-, PANT- (πᾶς, πάντος)

‘all’, ‘complete’

- PAN-GAM-ic, pertaining to indiscriminate mating, or found in all seeds;
- PAN-GE-a, term for the earth when all the continents were still connected
- PAN-ZOO-tic, in veterinary medicine, affecting many kinds of animals

PEN- (πένομαι)

‘deficiency’, ‘want’

- PEN-ury, extreme poverty;
- GLYCO-PEN-ia, tendency towards hypoglycaemia

PEP(S)-, PEPT- (πέψις; πέπτω)

‘to digest’

- PEPS-in, a substance containing a proteolytic enzyme obtained from the glandular layer of a hog’s stomach;
- PEPT-ic, pertaining to pepsin; pertaining to digestion, as peptic ulcer

PEX-, PAG- (πήγγνυμι; πήξις)

‘to fasten’; ‘united’

- ISCHIO-PAG-us, same as ISCHIO-DIDYM-us;
- CRANIO-PAG-us, conjoined twins united by their heads;
- HYSTERO-PEX-y, surgical procedure used for a prolapsed uterus

PHLEB- (φλέψ, φλεβός)

‘vein’

- PHLEB-itis, inflammation of the walls of a vein; phlebotomy;
- METRO-PHLEB-itis, inflammation of the veins of the uterus;
- PHLEBO-tomy, the surgical opening or puncture of a vein in order to withdraw blood, to introduce a fluid, or (historically) when letting blood

PHYC- (φύκος)

‘seaweed’, ‘algae’

- PHYCO-logy, the branch of botany concerned with seaweeds and other algae;
- CHLORO-PHYC-eae, algae having clear, green colour;
- DREPANO-PHYC-us, genus of fossil plants

PLATY(S)- (πλατύς)

‘broad’, ‘flat’

- PLATY-PUS (flat-footed);
- PLATY-CEPHAL-ic, characterizing a person with a flat skull

PNEUMON-, PNEUM- (πνεῦμα; πνεύμων)

‘lung’

- PNEUMO-LITH, a calculus or concretion in a lung;
- PARA-PNEUMO-ia, a disease presenting the symptoms of lobar pneumonia but not caused by the PNEUMO-COCC-us

POLI- (πολίς)

‘grey’

- POLI-ENCEPHALO-MYEL-itis, inflammation of the grey matter of the brain and spinal cord;
- POLIO-MYEL-itis, polio;
- POLIO-ENCEPHALO-pathy, any disease of the grey matter of the brain

PSEUD- (ψεῦδος)

‘false’

- PSEUDO-NYM;
- CHROMATO-PSEUD-OPS-is, colour blindness;
- PSEUDO-BLEPS-ia, a visual hallucination, a distorted visual image;
- PSEUDO-CYE-sis, phantom pregnancy

PTER-, PTERYG- (πτέρυξ, πτέρυγος)

‘wing’

- HELICO-PTER;
- PTERO-DACTYL;
- an-ISO-PTER-ous, unequally winged, applies to seeds;
- HYALO-PTER-ous, having transparent wings

PTO- (πίπτω; πτώμα)

‘to fall’

- PTO-sis, drooping of the upper eyelid;
- pro-PTO-sis, falling downward, prolapse (e.g. abnormal protrusion of the eyeball);
- PTO-ma-ine, an amino compound which results from decomposition of protein or dead animal matter by micro-organisms

SALPING- (σάλπιγξ, σάλπιγγος)

‘tube’; specifically relating to the fallopian tubes (orig. ‘trumpet’)

- SALPING-ectomy, surgical removal of the fallopian tubes; SALPINGO-CYE-sis, tubal pregnancy

SAPR- (σαπρός)

‘rotten’

- SAPRO-BI-c, living on decaying organic matter;
- SAPRO-PHYT-ic, pertaining to a plant that lives on decaying organic matter

SAUR- (σαύρα)

‘lizard’

- DINO-SAUR;
- SAURO-POD, a dinosaur with massive limbs;
- BRANCHIO-SAUR, small, prehistoric amphibian, similar to a salamander; SAUR-ian, like a lizard;
- SAURO-GNATH-us, with saurian arrangement of jaw bones

SCHIZ-, SCHIS(T)- (σχίζω; σχίσις)

‘to split’

- SCHIZO-PHREN-ia, lit. having a split mind; ana-SCHIS-tic, applied to a type of tetrads which divides twice longitudinally in meiosis;
- SCHISTO-GLOSS-ia, condition of having a cleft tongue

SIAL- (σίαλον)

‘saliva’

- GLYCO-SIAL-ia, presence of glucose in saliva;
- SIALO-LITH-iasis, presence of salivary calculi

SPLANCHN- (σπλάγχνα)

‘entrails’, ‘viscera’

- SPLANCHN-ic, relating to the viscera or internal organs, especially those of the abdomen;
- SPLANCHNO-dia-STA-sis, displacement or separation of the viscera;
- SPLANCHNO-PLEURE, a layer of tissue in a vertebrate embryo comprising the endoderm and the inner layer of mesoderm (cf. somatopleure; *pleura*, ‘side’)

STHEN- (σθένος)

‘strength’

- ADEN-a-STHEN-ia, functional deficiency of a gland;
- an-ISO-STHEN-ia, not of equal power, said of pairs of muscles

TACH(Y)- (ταχύς)

‘swift’

- TACHY-PHAG-ia, rapid eating;
- TACH-inidae, a large family of rapid-flying, two-winged insects

TELE- (τῆλε)

‘afar’, ‘operating at a distance’

- TELE-PHONE;
- TELE-therapy, treatment at a distance, e.g. by a source or radiation at a distance from the patient

NOTE: not to be confused with TEL(E)- ‘end’ of list 5

THI- (θειον)

‘sulphur’

- THIO-BACTER-ia, bacteria which grow where decaying organic matter releases hydrogen sulphide;
- THIO-GEN-ic, applies to sulphur-producing bacteria

THORAC- (θώραξ, θώρακος)

‘chest’, ‘thorax’

- THORAC-ic, relating to the thorax;
- THORACO-tomy, surgical incision into the chest wall; HAEMO-
- THORAX, accumulation of blood in the pleural cavity;
- THORACO-MEL-us, parasitic limb attached to the thorax of a host

THROMB- (θρόμβος)

‘clot’

- THROMBO-CYTE, blood platelet;
- THROBO-CYTO-CRIT, a glass tube for counting blood platelets;
- THROMBO-PLAST-in, extracts which promotes clotting

TOX- (τόξον)

‘poison’

- TOX-ico-DERMAT-itis, skin inflammation due to poison;
- TOX-ico-DENDR-on, genus of plants including poison ivy and oak;
- TOX-ico-GNATH, poison fangs of the centipede

TRICH-, (THRIX-) (θρίξ, τριχός)

‘hair’; ‘be hairy’

- TRICH-iasis, ingrowth or introversion of the eyelashes;
- amphi-TRICH-ous, with flagellum at each pole;
- SCHIZO-TRICH-ia, splitting of the hair;
- TRICHO-logy, the branch of medical and cosmetic study and practice concerned with the hair and scalp

UR- (οὐρά)

‘tail’

- URO-STHEN-ic, having tail strongly developed for propulsion;
- URO-STYLE, posterior part of vertebral column in anurous amphibians

NOTE: don’t confuse this one with the homonymous UR- ‘urine’ learned in List 1.

XANTH- (ξανθός)

‘yellow’

- XANTH-ic, yellowish;
- XANTH-OP-sia, visual disturbance in which objects look yellow;

XANTHO-CHROM-ia, a yellowish discolouration of the skin

XER- (ξηρός)

‘dry’

- XER-ic, containing little moisture;
- XERO-PHYTE, a plant which needs very little water;
- XERO-PHOB-ous, having little capacity to resist drought;
- XERO-THERM, a plant which survives drought and heat

Vocabulary List 4

Greek Numeral Roots

HEMI- (ἡμι-)

‘half’

- HEMI-SPHERE, a half of a sphere; HEMI-BRANCH, a gill having filaments on one side only, a half-gill;
- HEMI-NEPHR-ectomy, removal of part of a kidney;
- HEMI-an-OP-ia or HEMI-an-OP-sia, blindness over half the field of vision;
- HEMI-ALG-ia, pain affecting one half of the body.

MON- (μόνος)

‘single’, ‘one’

- MON-ARCH;
- MONO-GRAPH, a detailed written study of a single specialized subject or an aspect of it;
- MONO-CARP-ic, a plant flowering only once and then dying;
- MONO-TRICH-ous, having only one flagellum at one pole (opp. amphi-TRICH-ous)

PROT- (πρῶτος)

‘first’, ‘original’, ‘primitive’

- PROTO-CEPHAL-on, first of six segments composing an insect’s head;
- PROTO-PHYTE, any plant of the lowest and most primitive type;
- PROTO-ZO-an, a unicellular or noncellular animal organism

DI- (δι-)

‘twice’, ‘double’

- DI-LEM-ma, a situation in which a difficult choice has to be made between two or more alternatives;
- DI-PLO-ma (‘folded paper’);
- DI-ARTHR-osis, a freely movable articulation;
- DI-oecious, having sexes separate, usually refers to plants which have male and female flowers on different individuals
- NOTE: not to be confused with prefix dia- ‘through’ of List 1 or the Latin prefix dis-/di- ‘apart’ of List 6.

DICH- (δίχα)

‘in two’

- DICHO-tomy, a division or contrast between two things (in botany, repeated branching into two equal parts);
- DICH-OP-tic, having the borders of the compound eyes separate, or having the eyes wide apart (of an insect)

DEUT-, DEUTER- (δεύτερος)

‘second’

- DEUTER-AGON-ist, the person second in importance to the protagonist in a drama;
- DEUTERO-nomy (‘second law’); DEUTERO-GENE-sis, second phase of embryonic development

TRI- (τρεῖς)

‘three’

- TRI-POD;
- TRI-CYCLE;
- TRI-CHROMAT-ic, able to perceive the three primary colours;
- TRI-DACTYL, having three digits;
- TRI-COCC-us, a three-carpel fruit

TETR(A)- (τετράς)

‘four’

- TETRA-meter;
- TETRA-CHEIR-ous, having four hands;
- TETRA-CYCL-ic, with four whorls

PENT(A)- (πέντε)

‘five’

- PENTA-GON;
- PENTA-meter;
- PENTA-DACTYL, having all four limbs normally terminating in five digits

HEXA- (ἑξ)

‘six’

- HEXA-GON-al;
- HEXA-meter;
- HEXA-GYN-ous, having six pistils;
- HEXA-hedron, a POLY-hedron having six faces;
- HEX-ose, any monosaccharide containing six carbon atoms

HEPT(A)- (ἑπτά)

‘seven’

- HEPTA-GYN-ous, having seven pistils;

- HEPTA-HYDR-ate, a compound with seven molecules of water

OCT(A)- (ὀκτώ)

‘eight’

- OCTO-PUS;
- OCT-ODONT, having eight teeth;
- OCT-OPHTHALM-us, having eight eyes

ENNE(A)- (ἐννέα)

‘nine’

- ENNE-ad, a group of nine;
- ENNEA-GON, a nine-sided polyhedron;
- ENNE-ANDR-ous, having nine stamens

DEC(A)- (δέκα)

‘ten’

- DECA-LOGUE, the Ten Commandments;
- DECA-HYDR-ate, compound with ten molecules of water;
- DECA-hedron, a ten-sided polyhedron;
- DECA-POD, having ten legs

HECT- (ἑκατόν)

‘hundred’

- HECT-ARE, one hundred ares (10,000 square metres);
- HECTO-GRAM, one hundred grams

KILO- (χίλιοι)

‘one thousand’

- KILO-CALOR-ie, one thousand calories (equal to one large calorie);
- KILO-GRAM, one thousand grams

Greek Roots IV

ALL- (ἄλλος)

‘other’, ‘different’

- ALLE-GOR-y, a story, poem, or picture which can be interpreted to reveal a hidden meaning, typically a moral or political one;
- ALLO-plasty, a plastic operation in which material outside the human body is used;
- ALLO-PATR-ic, animals or plants occurring in separate non-overlapping geographical areas

ANKYL- (ἀγκύλος)

‘bent’, ‘stiff’, ‘adhesion of parts’

- ANKYLO-CHEIL-ia, adhesion of the lips;
- ANKYL-osis, abnormal stiffening and immobility of a joint due to fusion of the bones;
- ANKYLO-SAUR, a heavily built dinosaur

BRACHY- (βραχύς)

‘short’

- BRACHY-ODONT or BRACHY-DONT, a molar tooth with a low crown;
- BRACHY-PODUS;
- BRACHY-logy, concise or shortened expression

NOTE: Not to be confused with the similar
BRACHI- ‘arm of List 3

CAC-, (KAK-) (κακός)

‘bad’

- CACO-PHON-y;
- CAC-AESTHE-sia, any morbid sensation;
- CAC-OSM-ia, imaginary odours, particularly putrefactive odours

CAU-, CAUS- (καίω; καῦμα)

‘to burn’

- CAUS-tic;
- en-CAUS-tic;
- CAUM-AESTHE-sia, experience of a sense of heat when temperature is not high;
- CRYO-CAUT-ery, the destruction of tissues by application of extreme cold;
- CAUT-er-ize to apply an agent capable of burning or destroying tissue

CLI-, CLEI-, CLEIST- (κλείω; κλειστός)

‘to close’; ‘closed’

- CLEISTO-GAM-y, state of having small, inconspicuous, self-fertilizing flowers; fertilization without opening of florets;
- CORE-CLI-sis, pathologic closure or obliteration of the pupil

CLY(S)- (κλύζω)

‘to wash’

- cata-CLYSM;
- ENTERO-CLY-sis, injection of a fluid preparation into the rectum; hypo-
- DERMO-CLY-sis, introduction of large quantities of fluids into subcutaneous tissues

CROT- (κρότος)

‘pulse beat’

- TRI-CROT-ism, the condition of having three waves corresponding to one pulse beat

CYCL- (κύκλος)

‘circle’, ‘wheel’

- BI-CYCLE;
- en-CYCLO-PED-ia;
- a-CYCL-ia, state of arrested circulation of bodily fluids;
- CYCLO-COEL-ic, with intestines coiled in one or more distinct spirals

CYN- (κύων, κυνός)

‘dog’

- CYN-ic;
- CYNO-CEPHAL-ous, with the head shaped like a dog’s;
- CYNO-POD-ous, with non-retractile claws

DOLICH- (δολιχός)

‘long’

- DOLICHO-PLATY-CEPHAL-us, a person having a long skull which is unusually broad;
- DOLICHO-RRHINE, having a long nose

ER-, EROT- (ἔρως, ἔρωτος)

‘love’, ‘sexual love’

- AUTO-EROT-ic, relating to sexual excitement generated by stimulating or fantasizing about one’s own body;
- ALLO-EROT-ism, sexual excitement induced by and directed toward another

GENY-; GENI- (γένυς; γένειον)

‘jaw’, ‘cheek’; ‘chin’

- GENY-plasty, surgical reconstruction of the jaw;
- GENIO-GLOSS-us, muscle of the tongue arising from the mandible

GLAUC- (γλαυκός)

‘silvery’, ‘grey-green’

- a-GLAUC-OP-sia, green-blindness

GON(Y)-, GONAT- (γόνυ, γόνατος)

‘knee’

- GON-ALG-ia, pain in the knee joint;
- GON-ARTHR-itis, inflammation of the knee joint;
- GONATO-CELE, knee tumour

NOTE: not to be confused with root GON(I)- ‘angle’ of List 5

HAPL- (ἁπλός)

‘single’, ‘simple’

- HAPLO-id, have the number of chromosomes characteristic of mature germ cells for the organism in question;
- HAPL-OP-ia, single vision, as opposed to DIPL-OP-ia

(H)APT-; (H)APH-; APS- (ἅπτω --) ἅψω, ἑάφθῃ)

‘to touch’; ‘sense of touch’

- HAPH-ALGE-sia, a sensation of pain experience on the mere touching of an object;
- HAPT-ics, the branch of psychology dealing with the tactile sense;
- syn-APSE, the region of connection between two neurons

HOL- (ὅλος)

‘whole’, ‘entire’

- CAT-HOL-ic (in respect of the whole);
- HOLO-CAUST (burning of the whole);
- HOLO-GASTRO-SCHIS-is, fissure involving the whole length of the abdomen

HOM-, HOME- (ὁμός)

‘same’, ‘similar’

- HOMO-CHROM-ous, of one colour;
- HOMO-PHONE, pronounced alike but different in meaning or derivation or spelling;
- HOMO-PTER-ous, having wings alike

HYPN- (ὑπνος)

‘sleep’

- HYPN-AGOG-ic, inducing sleep, pertaining to inception of sleep, applies to visions seen just before complete sleep

IDE- (ιδέα)

‘idea’, ‘mental image’

- MONO-IDE-ism, absorption in a single idea, as in mental depression, hypnosis or trance;
- IDEO-phobia, morbid fear of ideas

KARY-, CARY- (κάρυον)

‘nucleus’, ‘nut’

- CARYO-CLAS-tic, agent which splits the cell nucleus;
- KARYO-GAM-y, the fusion of cell nuclei, as in fertilization

KERAT-, CERAT-, KER-, CER- (κέρας, κέρατος)

‘horn’, ‘horny tissue’, ‘cornea’

- RHINO-CER-os;
- BRACHY-CER-ous, short-horned, or with short antennae;
- KERAT-oma, a horny thickening of the skin;
- KERATO-MALAC-ia, softening of the cornea

KYM-, CYM- (κύμα)

‘wave’

- KYMO-GRAPH, an instrument for recording physiologic cycles or actions in a patient;
- MYO-KYM-ia, constant quivering of a muscle;
- CYMO-TRICH-ous, having wavy hair

LEMM(A)- (λέμμα)

‘sheath’, ‘husk’

- MYO-LEMMA or SARCO-LEMMA, the sheath of muscular fibre;
- NEURO-LEMMA, delicate elastic membrane outside medullary sheath of nerve fibre;
- LEMMO-CYTE, a formative cell for the neurolemma

LEPID- (λεπίς, λεπίδος)

‘scale (as in on lizards, fish, etc.)’

- HOMO-LEPID-ous, having one kind of scales;
- LEPIDO-SAUR-ia, reptiles with scaly skin, including lizards and snakes

LEPT- (λεπτός)

‘thin’, ‘delicate’

- DOLICHO-LEPTO-CEPHAL-us, a person whose skull, in addition to being long, is also high and narrow;
- LEPTO-DERMAT-ous, thin-skinned

LEUK-, (LEUC-) (λευκός)

‘white’

- LEUK-AEM-ia;
- LEUKO-CYTE, a colourless cell which circulates in the blood;
- LEUKO-ENCEPHAL-itis, inflammation of the white substance of the brain

LYMPH- (Lat. *lympa* from Greek νύμφη)

‘water’, ‘lymph’

- CYTO-LYMPH, cell-sap, the fluid part of protoplasm;
- KARYO-LYMPH, nuclear sap;
- LYMPHO-CYTE, a small mononuclear cell of blood or lymph;
- LYMPH-ADEN-oma, tumourlike enlargement of a lymph gland

MES- (μέσος)

‘middle’

- MESO-POTAM-ia; MESO-PHYTE, plant thriving in a temperate climate with a normal amount of moisture;
- MESO-POD-ium; middle part of the molluscan foot

MIT- (μίτος)

‘thread’

- MITO-sis, indirect or karyokinetic cell division, with chromosome formation, etc.;
- MITO-GENE-sis, formation as a result of mitosis;
- MITO-CHONDR-ion, an organelle found in large numbers in most cells
- NOTE: not to be confused with the Latin Root MIT- ‘send’ of List 9

MYX- (μύξα)

‘mucus’, ‘slime’

- MYX-oma, connective tissue tumour composed of cells of stellate and spindle form with processes separated by mucoid material;
- MYXO-POD-ium, a slimy PSEUDO-POD-ium

NEM-, NEMAT- (νήμα, νήματος)

‘thread’

- MICRO-NEM-ous, furnished with short filaments;
- NEMAT-ode, roundworm

NOS- (νόσος)

‘disease’

- NOSO-GEO-GRAPH-y, the geography of endemic diseases;
- NOSO-PHYTE, any pathogenic vegetable organism;
- PHOTO-NOS-us, disease from intense or glaring light, such as snow blindness

OEDE- (EDE-) (οἰδέω)

‘to swell’

- OEDE-ma, excessive accumulation of fluid in tissue spaces;
- ARTHR-OEDE-ma, oedema affecting the joints;
- TROPH-OEDE-ma, oedema due to damaged nourishment or nerve supply

ONC-, -ONCUS (ὄγκος)

‘tumour’, ‘swelling’

- ONCO-logy;
- ADEN-ONCUS, an enlargement or tumour of a gland;
- par-OPHTHALM-ONC-osis, development of tumour near the eye

ONT- (εἰμί --) ὄντος)

‘being’, ‘individual’

- ONTO-logy, the branch of metaphysics dealing with the nature of being;
- SCHIZ-ONT, a cell that divides by schizogony to form daughter cells (in biology, -ont denotes an individual or cell of a specified type)

ORNIS-, ORNITH- (ὄρνις, ὄρνιθος)

‘bird’

- ORNITHO-logy;
- HELI-ORNITH-idae, a family of tropical aquatic birds comprising the sun grebes;
- ORNITHO-philous, of flowers pollinated through the agency of birds

OXY-, OX- (ὀξύς)

‘sharp’, ‘acid’, ‘oxygen’

- PAR-OXY-sm;
- OXY-GEN;
- OXY-BLEP-sia, acuteness of vision;
- OXY-DACTYL, having slender, tapering digits;
- OXY-philous, tolerating only *acidic* soils or substrates

PALAE- (PALE-) (παλαιός)

‘old’, ‘ancient’

- PALAE-ONTO-logy;
- PALAEO-GRAPH-y;
- PALAEO-ENCEPHAL-on, the phylogenetically old part of the brain

PETR- (πέτρα)

‘rock’

- PETR-OL-eum;
- PETER;
- PETRO-philous, attached to or living on rocks, especially used of marine life

PHA-; PHEM- (φήμι; φάσις)

‘to speak’, ‘voice’

- a-PHEM-ia an inability to articulate words or sentences due to a central lesion;
- HETERO-PHEM-ia, the unconscious saying of one thing while another is meant

NOTE: don’t confuse with PHA- ‘appear’ of List 2.

PHON- (φωνή)

‘sound’, ‘voice’

- TELE-PHONE;
- BARY-PHON-ia a heavy or deep quality of voice;
- RHINO-PHON-ia, nasal tone in the speaking voice

PHOT- (φῶς, φωτός)

‘light’

- PHOTO-GRAPH;
- PHOTO-LY-tic, of a substance which is decomposed by action of light;
- PHOTO-TROPH-ic, requiring light as a source of energy in nutrition

PHRA- (φράζω)

‘to speak’

- PHRA-se;
- para-PHRA-se;
- peri-PHRA-sis;
- a-PHRA-sia, loss of power to utter connected phrases;
- em-BOLO-PHRA-sia, insertion of meaningless words into speech, embololalia

PHRAG- (φραγμός; φράγνυμι)

‘to block up’, ‘to wall in’

- dia-PHRAG-m;
- em-PHRAC-tic, any agent that obstructs the function of an organ, especially the excretory function of the skin

PHYL- (φυλή)

‘race’

- PHYL-um, (in zoology) a principal taxonomic category that ranks above class and below kingdom;
- POLY-PHYL-etic, a group of organisms derived from more than one common evolutionary ancestor or ancestral group and therefore not suitable for placing in the same taxon

PHYLAC(T)- (φύλαξ, φύλακος; φυλάκτωρ)

‘to guard’, ‘to protect’

- pro-PHYLACT-ic;
- cata-PHYLAX-is, movement and transportation of phylactic agents, such as leukocytes, to the site of an infection (X=c+s)

PLAN- (πλάνος)

‘wandering’

- PLAN-et;
- ANGIO-PLAN-ia, irregularity or abnormality in the course of a vessel (ANGI-ec-TOP-ia);
- a-PLANO-GAM-ete, a nonmotile, conjugating germ cell of various plants and animals;
- PLANO-mania, a morbid desire for wandering

NOTE: don’t confuse with Latin root PLAN- ‘flat’ of List 7.

PLEUR- (πλευρόν)

‘side’, ‘rib’, ‘pleura’

- an-ISO-PLEUR-al, bilaterally asymmetrical;
- eu-DI-PLEUR-al, symmetrical about a median plane, bilaterally symmetrical;
- PLEUR-ODYN-ia, pain in the abdominal wall;
- PLEURO-SOMATO-SCHIS-is, lateral abdominal fissure

-PLO- (-πλόος)

‘folded’, ‘fold’ (as in ‘threefold’)

- DI-PLO-ma;
- DI-PLO-m-at;
- DI-PLO-CEPHAL-us, an organism with two heads;
- HETERO-PLO-id, not having a multiple of the basic HAPLO-id number of chromosomes;
- TETRA-PLO-id, with four times the normal haploid number of chromosomes

PNE(A)-, PNEUST- (πνέω; πνευστικός)

‘breathing’

- amphi-PNEUST-ic, having both gills and lungs throughout life history;
- HOLO-PNEUST-ic, with all spiracles open for respiration;
- hyper-PNEA, increase in depth of inspiration

PNEUM-, PNEUMAT- (πνεῦμα, πνεύματα)

‘air’, ‘gas’

- PNEUMAT-iz-ation, progressive development of, or state of having, air-filled cavities in the bone

NOTE: related to root PNEUMON-, ‘lung’ of List 3

POIE- (ποιέω)

‘to make’

- PO-et;
- ONOMATO-POE-ia;
- ANGIO-POIE-sis, the process by which certain cells cause the formation of blood vessels in new tissue;
- HIDRO-POIE-sis, formation of sweat

PORPHYR- (πορφύρα)

‘purple’

- PORPHYR-in, a heterocyclic ring derived from porhin, named for its deep-red or purple colour;
- PORPHYR-in-uria, the excretion in the urine of an abnormal amount of porphyrin

PRESBY- (πρέσβυς)

‘old’

- PRESBY-CUS-is, progressive hearing loss occurring with age;
- PRESBYO-PHREN-ia, failure of the sense of location and memory in the aged

PYEL- (πύελος)

‘pelvis (especially of the kidney)’

- CYSTO-PYEL-itis, inflammation of the urinary bladder and pelvis of the kidney;
- PYELO-stomy, incision of the renal pelvis;

- PYELO-GRAPH-y, an X-ray technique for producing an image of the renal pelvis and urinary tract

PYG- (πυγή)

‘rump’

- PYG-id-ium, the terminal part or hind segment of the body in certain invertebrates;
- PYGO-POD-ous, having feet set far back, as some birds

PYR-, PYRET-; PYREX- (πῦρ; πυρετός; πυρέτω --) ἐπύρεξα)

‘fire’, ‘fever’, ‘fever’

- PYRETO-GEN-ic, causing fever;
- PYRETO-lysis, reduction of fever

RHAPH-, -RRHAPH- (ράφή)

‘to sew’

- RHAPE, the seamlike union of the two lateral halves of a part or organ (as of a tongue);
- dys-RAPH-ism, defective raphe formation, defective

RHIZ-, -RRHIZ- (ρίζα)

‘root’

- POLY-RRHIZ-al, having many roots;
- RHIZO-SPHERE, soil immediately surrounding the root system of a plant

SARC- (σάρξ, σαρκός)

‘flesh’

- SARCO-PHAG-us;
- SARCO-BI-ont, living on flesh;
- SARCO-CARP, the fleshy or pulpy part of a fruit

SCLER- (σκληρός)

‘hard’

- SCLER-osis;
- SCLER-a, the sclerotic coat of the eyeball, i.e., the firm fibrous outer layer of the eyeball;
- SCLERO-MENINX, dense fibrous lining of the cranial cavity and spinal canal, dura mater

SEP- (σήπω)

‘to rot’, ‘to putrefy’

- a-SEP-tic, pertaining to the exclusion of microorganisms causing decay;
- anti-SEP-tic, preventing SEP-sis or poisoning by destruction of or exclusion of microorganisms from body tissue

NOTE: don’t confuse with Latin root SEP- ‘separate’ of List 9

SIT- (σίτος)

‘food’

- para-SITE;
- apo-SIT-ia, aversion to or loathing of food;
- SITO-therapy, the use of food for therapeutic purposes, a.k.a. DIETO-therapy;
- SITO-TROP-ism, tendency to turn in the direction of food

SPA- (σπάω)

‘to draw’, ‘to jerk’

- SPAS-m;
- anti-SPAS-tic, anti-SPASM-od-ic, or SPAS-m-o-LY-tic, an agent relieving convulsions or spasmodic pains

SPLEN- (σπλήν)

‘spleen’

- SPLEN-etic;
- GASTRO-SPLEN-ic, relating to the stomach and spleen;
- SPLEN-ALG-ia, pain originating in the spleen

STAPHYL- (σταφυλή)

‘bunch of grapes’, ‘uvula’

- BRACHY-STAPHYL-ine, having a short alveolar arch;
- STAPHYLO-COCC-us, spherical bacteria sometimes occurring in clusters;
- STAPHYLO-RRAPH-y, repair of a cleft palate by plastic operation and suture

STEAR-, STEAT- (στέαρ, στέατος)

‘fat’, ‘tallow’

- STEAT-itis, inflammation of adipose tissue;
- STEAT-oma, a sebaceous cyst or tumour of a sebaceous gland;
- STEAR-in, a white crystalline substance which is the main constituent of tallow and suet

STEN- (στενός)

‘narrow’

- STENO-GRAPH-y, shorthand;
- STENO-COR-iasis, narrowing of the pupil;
- STENO-STOMAT-ous, narrow-mouthed

STETH- (στήθος)

‘chest’

- MESO-STETH-ium, middle part of the sternum in vertebrates;
- MICRO-STETHO-PHONE, a STEHO-SCOPE that amplifies the sounds heard

STREPT-, STROPH- (στρεπτός; στροφή)

‘turned’, ‘twisted’

- PHLEBO-STREP-sis, the twisting of a vein;
- STREPTO-COCC-us, a bacterium of a genus that includes the agents of souring of milk and dental decay, and haemolytic pathogens causing various infections such as scarlet fever and pneumonia

STERE- (στερεός)

‘solid’, ‘three-dimensional’

- STEREO-PHON-ic;
- STEREO-ARTHRO-lysis, loosening stiff joints by operation or manipulation;
- STEREO-PLASM, more solid part of a protoplasm, opp. of HYDRO-PLASM

THALL- (θαλλός)

‘young shoot’

- THALLO-PHYTE, plant not differentiated into stem and root, such as algae, fungi and lichens;
- THALL-us (*pl.* thalli), a plant body that is not differentiated into stem and leaves and lacks true roots and a vascular system (i.e. algae, fungi, lichens, and some liverworts)

THYM- (θυμός)

‘mind’, ‘emotions’

- eu-THYM-ia, a joyful but tranquil mood;
- hyper-THYM-ia, heightened emotional response;
- hypo-THYM-ia, subnormal emotional response and depression

TRIB-, TRIP- (τρίβω --) ἔτρψα)

‘to rub’, ‘to crush’

- OMPHALO-TRIP-sy, separation of the umbilical cord by a crushing instrument;
- XERO-TRIP-sis, dry friction

XEN- (ξένος)

‘host’, ‘stranger’, ‘foreigner’

- XENO-phobia;
- peri-XEN-itis, inflammation around a foreign body embedded in the tissues;
- XENO-CHROMA, the effect of foreign pollen producing a change in colour of fruit;
- XENO-LITH, a fragment of a rock included in another rock

ZYG- (ζυγόν)

‘yoke’; relating to joining or pairing

- ZYG-ODONT, having molar teeth in which the four tubercles are united in pairs;
- ZYG-ote, cell formed by the union of two gametes or reproductive cells (a fertilized ovum)

Vocabulary List 5

Greek Roots V

ADELPH- (ἀδελφός)

‘brother’, ‘sibling’

- PHIL-ADELPH-ia;
- IS-ADELPH-ia, conjoined twins united by unimportant tissues, with each body being normal in the development of all essential organs;
- ADELPH-ous, joined together in bundles, as filaments of stamens

ALEX- (ἀλέξω)

‘to ward off’

- ALEX-ANDER;
- ALEX-in, a complex substance with the capacity, in cooperation with antibody and cellular elements, to destroy a variety of pathogenic organisms and other foreign substances

ANCON- (ἀγκών)

‘elbow’

- ANCON-eus, a small muscle at the back of the elbow joint;
- ANCON-itis, inflammation of the elbow joint

ANTR- (ἄντρον)

‘cavity’, ‘sinus’

- ANTR-itis, maxillary sinusitis;
- ANTRO-CELE, an accumulation of fluid in the maxillary sinus

BALAN- (βάλανος)

‘acorn’, ‘the glans penis’

- BALAN-idae, sessile barnacles comprising acorn barnacles;
- BALAN-oid, acorn-shaped (of barnacles);
- BALAN-itis inflammation of the glans penis

BRONCH(I)- (βρόγχια)

‘air tube’

- BRONCH-ADEN-itis, inflammation of bronchial lymph nodes;
- BRONCH-itis, inflammation of mucous membrane of bronchial tubes

BRY- (βρύον)

‘moss’

- BRYO-PHYTE, any of the mosses or liverworts;
- BRYO-logy the science dealing with mosses and liverworts

CALYPT(R)- (καλυπτός)

‘hidden’

- CALPYTO-BRANCHI-ate, with gills not visible from the exterior;
- CALYPTO-BLAST-ic, pertaining to hydroids in which gonophore is contained in a gonotheca

CAMP(T)-, CAMPYL- (κάμπτω; καμπύλος)

‘bent’

- a-CAMP-sia, inflexibility or rigidity of a joint or limb;
- GONY-CAMP-sis, deformity of the knee due to abnormal bending or curving

CARP- (καρπός)

‘wrist’

- CARP-itis, arthritis of the carpal joint in domestic animals;
- CARP-ectomy, excision of a carpal bone or bones;
- meta-CARP-al, part of hand between carpus and phalanges

NOTE: not to be confused with the homonymous CARP- ‘fruit’ of List 3

CERC- (κέρκος)

‘tail’

- LEPTO-CERC-al, with long, slender, tapering tail, as some fishes;
- LOPHO-CERC-al, having a rayless caudal fin like a ridge

CHLAMYD- (χλαμύς, χλαμύδος)

‘cloak’, ‘envelope’

- CHLAMYDO-SAUR-us, a genus of reptiles including the frilled lizard of Australia;
- HETERO-CHLAMYD-eous, having a calyx differing from the corolla in colour

CHORD- (χορδή)

‘cord’

- NOTO-CHORD, the dorsal supporting axis of lowest vertebrates

CHOR(I)- (χόριον)

‘fetal membrane’ (chorion), ‘tunic of the eye-ball’ (choroid)

- CHORIO-BLAST-osis, abnormal proliferation of cells of the chorion;
- CHOROID-itis, inflammation of the choroid coat of the eye

CHY-; CHYM-, CHYL- (χέω; χύμα; χυλός)

‘to pour’; ‘juice’

- CHY-me, the viscid fluid contents of the stomach, consisting of food which has undergone gastric digestion;
- CYTO-CHYL-ema, the interreticular portion of protoplasm, cell-juice

CLEID- (κλείς, κλειδός)

‘clavicle’

- HYPO-CLEID-ium, the interclavicle

CLON(US)- (κλόνος)

‘muscle spasm’

- CLONO-GRAPH, apparatus for recording spasmodic movements of the head, lower jaws, trunk, etc.

COLL(A)- (κόλλα)

‘glue’

- COLLA-GEN, the albuminoid substance of the white fibre of connective tissue, cartilage and bone;
- COLLO-oid, a gelatinous substance which does not readily diffuse through animal or vegetable membrane

NOTE: not to be confused with the similar COL- ‘colon’ of List 2 or the homonymous Latin roots COL- ‘inhabit’ and COLL- ‘neck’ of List 7.

CONDYL- (κόνδυλος)

‘knob’, ‘knuckle’

- CONDYLE, any rounded eminence such as occurs in the joints of many bones;
- CONDYL-oma, a wartlike growth or tumour

CORM- (κορμός)

‘trunk of a tree or body’

- RHIZO-CORM, an underground stem like a single-jointed rhizome, a bulb;
- SCHISTO-CORM-us, having a cleft thorax

DOCH- (δοχός, cf. δέχομαι)

‘to take or receive’

- ELAEO-DOCH-on, the preen gland or oil gland of birds;
- SIALO-DOCHO-plasty, plastic surgery of a salivary gland duct

ECH- (ήχώ)

‘echo’, ‘repetition’

- ECHO-ACU-sia, the subjective sensation of hearing echoes following sounds heard normally;
- ECHO-LAL-ia, the meaningless repetition of words spoken by others

GANGLI- (γαγγλίον)

‘mass of nerve tissue’, ‘small cyst or swelling’

- DI-PLO-GANGLI-ate, with ganglia in pairs;
- GANGLIO-CYTE, a ganglion cell outside the central nervous system

GLI- (γλία)

‘glue’

- NEURO-GLI-a, fibrous or protoplasmic cells supporting nerve cells and nerve fibres;
- GLI-osis, excessive development of neuroglia

GON(I)- (γωνία)

‘angle’

- PENTA-GON;
- MICRO-GONI-SCOPE, an apparatus for measuring extremely small angles, as in ophthalmology

NOTE: not to be confused with root GON(Y)- ‘knee’ of List 4

HAL- (ἅλς)

‘salt’

- HAL-ite, rock salt; HALO-PHYTE, a shore plant, a plant capable of living on salt;
- HALO-GEN, any one of the nonmetallic elements: iodine, chlorine, bromine, fluorine

NOTE: not to be confused with Latin root HAL- ‘breath’ of List 9

IN- (ἵς, ἰνός)

‘fibre’, ‘muscle’

- INO-CHONDR-itis, inflammation of fibrocartilage;
- INO-TROP-ic, pertaining to influences that modify muscle contraction

NOT- (νῶτον)

‘the back’

- NOT-an-ENCEPHAL-ia, congenital absence of the cerebellum;
- STENO-NOT-al, with a very small thorax, as a worker insect

OM- (ὤμος)

‘shoulder’

- ACR-OM-ion, the flat, long process formed by the lateral extension of the scapular spine situated just above the glenoid cavity;
- met-ACR-OM-ion, posterior branch process of the acromion process

OPISTH- (ὀπισθεν)

‘behind’

- OPISTH-ion, median point of posterior margin of the foramen magnum (i.e., the opening in the skull for the spinal cord);
- OPISTH-ODONT, having back teeth only

PALI(N)- (πάλιν)

‘again’, ‘back’

- PALIN-DROME;
- PALIN-ODE;
- PALIN-DROM-ia, recurrence or intensification of a disease;
- PALI-OP-sia, recurrence of a visual impression after stimulus has ceased

PHARYNG- (PHARYNX) (φάρυγξ, φάρυγγος)

‘pharynx’

- PHARYNG-eal, relating to the pharynx;
- PHARYNG-itis, inflammation of the pharynx, causing a sore throat;

- NASO-PHARYNX, the upper part of the pharynx, connecting with the nasal cavity above the soft palate

PHY- (φύω)

‘to grow’

- apo-PHY-sis, a process, outgrowth or projection of some part or organ, as of a bone;
- DACTYLO-sym-PHY-sis, syndactyly (having some or all digits united, naturally or as a malformation)

POIKIL- (ποικίλος)

‘varied’, ‘irregular’, ‘mottled’

- POIKILO-CYTE, a large red blood cell or irregular shape;
- POIKILO-THERMAL, a cold-blooded animal, of which the temperature varies with its surroundings

POR- (πόρος)

‘passage’, ‘pore’

- POR-ous;
- POLY-POR-in, antibiotic derived from POLY-PORE fungus;
- POR-ENCEPHAL-itis, encephalitis with a tendency to form cavities

PTY-; PTYAL- (πτύω; πτύαλον)

‘to spit’, ‘saliva’

- PTYALO-CELE, a cyst containing saliva;
- PYO-PTY-sis, expectoration of pus

PYCN-, PYKN- (πυκνός)

‘thick’, ‘frequent’

- PYCNO-meter, instrument for determining the specific gravity of fluids

PYL(E)- (πύλη)

‘gate’, ‘entrance’

- THERMO-PYL-ae;
- apo-PYLE, exhalant pore of a sponge;
- MICRO-PYLE, aperture for admission of pollen tube at ovule apex;
- PYLE-THROMBO-PHLEB-itis, inflammation and thrombosis of the portal vein

RHABD- (ράβδος)

‘rod’

- RHABDO-MY-oma, tumour of striated muscle;
- RHABDO-phobia, morbid fear of being beaten, unreasoning fear at the sight of a stick

RHACH(I)-, RACH(I)-, -RRACH- (ράχις)

‘the spine’

- RHACHIO-CAMP-sis, curvature of the spine;
- RACHI-ODYN-ia, spasmodic pain in the spinal column

-RRHAG- (ρήγνυμι)

‘excessive discharge, usually of blood’

- ENTERO-RRHAG-ia, intestinal haemorrhage;
- BALANO-RRHAG-ia, haemorrhage from the glans penis

SPERM(A)-, SPERMAT- (σπέρμα, σπέρματα)

‘seed’, ‘semen’

- COELO-SPERM, a carpel hollow on its inner surface;
- GYMNO-SPERM-ous, having seeds not enclosed in a true ovary, as conifers;
- SPERMATO-ZOON, a male reproductive cell;
- SPERMATO-CYST, a seminal sac

SPHEN- (σφήν)

‘wedge’

- SPHEN-oid, a basal compound skull bone of some vertebrates, including humans;
- SPHEN-oid-itis, inflammation of the sphenoid air sinus

SPHYGM- (σφυγμός)

‘pulse’

- SPHYGMO-GRAPH, instrument for graphically recording pulse and variations in blood pressure;
- SHYGMO-GRAM, the tracing made by the sphygmograph

SPIR- (σπείρα)

‘coil’

- SPIR-al;
- ACRO-SPIRE, the first shoot or sprout, being spiral, at the end of a germinating seed;
- SPIR-eme, threadlike appearance of nuclear chromatin during the prophase of mitosis

NOTE: don't confuse with Latin root SPIR- ‘breath’ of List 9

SPONDYL- (σπόνδυλος)

‘vertebra’

- ASTERO-SPONDYL-ous, having centrum with radiating, calcified cartilage;
- SPONDYLO-lysis, dissolution or destruction of a vertebra

SPOR- (σπορά)

‘seed’, ‘spore’

- dia-SPOR-a;
- ANGIO-SPOR-ous, having spores contained in a theca or spore capsule;
- SPORO-GON-y, spore formation (= SPORO-GENE-sis);
- TRICHO-SPOR-osis, fungous infection of a hair shaft

STERN- (στέρνον)

‘chest’, ‘breastbone’

- CHONDRO-STERN-al, pertaining to rib cartilage and sternum;
- SCHISTO-STERN-ia, sternal fissure

STIG- (στίγμα, στίγματα)

‘pricking’, ‘mark’, ‘point’

- STIG-ma; a-STIG-mat-ism, the faulty vision which results from irregularity in the curvature of one or more refractive surfaces of the eye, preventing rays of light from coming to a single focus;
- OSTEO-STYX-is, surgical puncturing of a bone (here X = G+s)

SYRING-, (SYRINX) (σῦριγξ, σύριγγος)

‘pipe’, ‘tube’

- DACRYO-SYRINX, a lacrimal fistula, or a syringe for use in lacrimal ducts;
- SIALO-SYRINX; a salivary fistula, or a syringe for use in salivary ducts;
- SYRINGO-PHIL-us, genus of parasitic mites that live in the gullets of birds

TA- (τάσις. cf. τείνω)

‘to stretch’

- BRONCHI-ec-TA-sis, dilatation of bronchi;
- IRIDO-TA-sis, stretching the iris, as in the treatment of glaucoma;
- PHLEB-ec-TA-sia, dilatation of a vein, varicosity

TEL(E)- (τέλος)

‘completion’, ‘end’, ‘purpose’

- TELEO-logy;
- a-TELO-GNATH-ia, imperfect development of a jaw;
- TELO-KINE-sis, last stage of mitosis

NOTE: not to be confused with TELE- ‘afar’ of list 3

THEL- (θηλή)

‘nipple’

- ENDO-THEL-ium, tissue lining blood and lymph vessels;
- EPI-THEL-ium, tissue forming epidermis and lining hollow organs;
- POLY-THEL-ia, the presence of supernumerary nipples; THEL-ion, central point of a nipple

TOC-, TOK- (τόκος)

‘childbirth’

- OLIGO-TOC-ous, bearing few young;
- OO-TOC-ous, egg-laying

TON- (τόνος. cf. τείνω)

‘stretching’, ‘tension’

- TONE; TON-us, the state of partial contraction characteristic of normal muscle;
- a-TON-ia, absence of tonus;
- OPTHALMO-TONO-meter, an instrument for measuring inter-ocular tension;
- PSYCH-en-TON-ia, mental strain or overwork

TRACHEL- (τράχηλος)

‘neck’

- LAPARO-TRACHELO-tomy, low caesarean section in which the peritoneal cavity is not opened, the approach being through the neck (cervix) of the uterus;
- TRACHELO-SYRINGO-RRHAPH-y, operation for vaginal fistula with stitching of the cervix uteri (the neck of the uterus)

TRE(T)- (τρήμα; τετραίνω)

‘bore’, ‘to perforate’

- a-TRETO-STOM-ia, imperforation of the mouth;
- TRE-ma, a foramen (an opening, orifice, hole or short passage)

TROCH- (τροχός)

‘wheel’, ‘disk’

- TROCO-CEPHAL-ia, an abnormal roundness of the skull caused by premature union of frontal and parietal bones;
- CEPHALO-TROCH-a, a tubellarian larva with eight processes around the mouth

XYL- (ξύλον)

‘wood’

- XYLO-PHONE;
- XYLO-PHYTE, a woody plant;
- XYL-oma, a tree tumour;
- XYLO-TOM-ous, able to bore or cut wood;
- XYLO-PHAG-ous, wood-eatin

ZYM- (ζυμώω)

‘ferment’, ‘enzyme’

- ZYMO-sis, fermentation;
- ZYMO-GEN-ic, causing fermentation;
- en-ZYME, catalytic substance promoting chemical change;
- ZYMO-PHORE, active part of an enzyme (that which bears the ferment)

Vocabulary List 6

Latin Prefixes

ab-, a-, abs- (*ab*)

‘away from’, ‘from’

- Abduction, abnormal, aversion, avocation, abstraction, abstain

ad-, ac-, ag- (etc.) (*ad*)

‘to’, ‘toward’, ‘near’

- adrenal, adverb, access, aggression, alleviate

NOTE: Often the last consonant of this prefix to become the same as the first consonant of the root, a process known as assimilation

ambi-, ambo- (*ambi/ambo*)

‘both’, ‘around’

- ambidextrous, ambition, ambisexual, amboceptor, ambosexual

ante- (*ante*)

‘before’, ‘in front of’

- antechamber, antecedent

circum-, circu- (*circum*)

‘around’

- circumference, circumstance, circuitous

con-, com-, co-, etc. (*cum*)

‘with’, ‘together’, ‘very’

- conduct, confine, compose, compress, correspond, cooperate, collect

NOTE: Often the last consonant of this prefix to become the same as the first consonant of the root, a process known as assimilation

contra-, contro- (*contra*)

‘opposite’, ‘against’ (through French, counter-)

- contradict, contraceptive, controversy, controvert, counteract, counterindicate

de- (*de*)

‘down’, ‘away’, ‘off’, ‘thoroughly’

- describe, descend, depression

NOTE: not to be confused with the Greek root DE- ‘binding’ List 1.

dis-, di-, dif- (*dis-*)

‘apart’, ‘in different directions’, ‘thoroughly’

- dissect, dispersion, divorce, digress, divert, differ, diffusion

NOTE: not to be confused with Greek prefix dia- ‘through’ or root DI- ‘twice’ of List 1 and 4..

ex-, e-, ef- (*e, ex*)

‘out’, ‘from’, ‘removal’, ‘completely’

- exclude, expel, exclamation, emit, elect, elongate, effective, expect

NOTE: after ex- an initial S in a root sometimes disappears, as in ex-(S)PECT and ex-(S)PIRE.

extra-, extro- (*extra*)

‘outside of’, ‘beyond’

- extraordinary, extrasensory, extrovert

in-, im-, etc. (*in*)

‘into’, ‘on’ (through French, *en-*)

- incision, induce, illuminate, imprint, irrigation, enclose

NOTE: Often the last consonant of this prefix to become the same as the first consonant of the root, a process known as assimilation

intra-, intro- (*intra*)

‘within’

- intramural, introduce, introvert

in-, im-, etc. (*in-*)

‘not’

NOTE: Often the last consonant of this prefix to become the same as the first consonant of the root, a process known as assimilation

- infirm, inefficient, impossible, illegible, irresponsible

infra- (*infra*)

‘below’

- infrared, inhuman, infraspacial

inter- (*inter*)

‘between’, ‘among’

- interrupt, intercept, interact

juxta- (*iuxta*)

‘by the side of’, ‘close to’

- juxtaposition, juxtapositional

ob-, etc. (*ob*)

‘against’, ‘toward’, ‘completely’

- obstruct, obstacle, obvious, oppose, offer, occur

NOTE: Often the last consonant of this prefix to become the same as the first consonant of the root, a process known as assimilation

per- (*per*)

‘through’, ‘wrongly’, ‘completely’

- perfect, permeate, pervade, perjury

post- (*post*)

‘behind’, ‘after’

- postpone, postscript, postgraduate

pre- (*prae-*) (*pre*)

‘before’, ‘in front of’

- prevent, prepare, precaution, praenomen, praetorian

pro- (*pro*)

‘forward’, ‘in front of’

- progress, project, prolong

re-, red- (*re-*)

‘back’, ‘again’, ‘against’

- reduce, reject, recede, redundant, redemption

retro- (*retro*)

‘backwards’, ‘behind’

- retroactive, retrospective, retrograde

se- (*se, sine*)

‘aside’, ‘away’

- secede, select, secrete

sub-, sus-, suc-, etc. (*sub*)

‘under’, ‘up from under’, ‘somewhat’

- submarine, subscribe, submerge, suspend, suffer, support

NOTE: Often the last consonant of this prefix to become the same as the first consonant of the root, a process known as assimilation

super-, supra- (*super*)

‘above’

- supernatural, superstructure, supersonic, suprarenal

trans-, tran-, tra- (*trans*)

‘across’, ‘through’

- transmit, transfer, transfusion, transcribe, transcend, trajectory, travesty, tradition

ultra- (*ultra*)

‘beyond’

- ultraviolet, ultramodern, ultrasonic

Latin Adjective-Forming Suffixes

-able, -ible (*-abilis, -ibilis*)

‘able to be’, ‘able to’, ‘tending to’

- durable, adaptable, incredible, flexible, adaptability, flexibility

NOTE: When this suffix is followed by another suffix, it becomes -abil-, -ibil-.

-aceous (*-aceus*)

‘belonging to’, ‘resembling’

- herbaceous, cretaceous, chartaceous

-acious (= *-ax + -ous*)

‘tending to’, ‘inclined to’

- vivacious, audacious, loquacious

-al, (-ial, -eal) (*-alis*)

‘pertaining to’, ‘like’, ‘belonging to’, ‘having the character of’

- abdominal, legal, oral, corporal

-an, -ane (*-anus*)

‘pertaining to’, ‘like’, ‘belonging to’, ‘having the character of’

- urban, veteran, Canadian

-ent (-ient), -ant (-iant)

equivalent to the English present participle ending, *ing* (-ens, -ans); this suffix forms words meaning ‘person who’, ‘that which’

- eloquent, innocent, dormant, vigilant, agent, current, inhabitant

NOTE: this ending often forms adjectives, BUT sometimes these adjectives can stand in for nouns (“substantive adjectives”).

- E.g. “the innocent (adjective) people” vs. “the innocent (substantive adjective acting as a noun)”

Other times, though, it just forms a noun.

-id (-idus)

‘tending to’, ‘inclined to’

- fervid, frigid, vivid

-ile, -il (-ilis)

‘pertaining to’, ‘like’, ‘belonging to’, ‘having the character of’

- hostile, juvenile, virile, civil

NOTE: Distinguishable from the other -ile by the fact that it is attached to noun roots.

-ile (-ilis)

‘able to be’, ‘able to’, ‘tending to’

- fragile, ductile, agile, docile

NOTE: Distinguishable from the other -ile by the fact that it is attached to verbal roots.

-ar (-aris)

‘pertaining to’, ‘like’, ‘belonging to’, ‘having the character of’

- lunar, solar, popular

-ary (-arius)

‘pertaining to’, ‘connected with’, ‘having the character of’

- literary, sanguinary, military

NOTE: this ending often forms adjectives, BUT sometimes these adjectives can stand in for nouns (“substantive adjectives”).

- E.g. “the military (adj.) aircraft” vs. “Canada’s military” (substantive adjective acting as a noun)”

-ate (occasionally -ite) (-atus)

‘having’, ‘having the shape of’, ‘characterized by having’

- effeminate, accurate, dentate, favourite

-fic (= -fy + -ic)

‘making’, ‘causing’

- terrific, pacific, scientific

NOTE: this adjectival suffix corresponds to the -fy verb-forming suffix (e.g. terrify, pacify), which will be learned later.

-form (usually -iform) (-formis)

‘like’, ‘having the shape of’

- reniform, muriform, oviform

-ic, -tic (-icus, -ticus)

‘pertaining to’, ‘like’

- pelvic, civic, lunatic

-ine (-inus)

‘pertaining to’, ‘like’, ‘belonging to’, ‘having the character of’

- bovine, marine, feminine
-

-itious (-icius)

‘tending to’, ‘characterized by’

- fictitious, excrementitious

-ive (-ivus)

‘tending to’, ‘inclined to’

- active, aggressive, adhesive

-ory (-orius)

‘tending to’, ‘serving for’

- preparatory, introductory, excretory

-ose (-osus)

‘full of’

- verbose, rugose, comatose

-ous, -ious, -eous (-osus, -us)

‘full of’, ‘having the character of’

- various, populous, nervous

-(u)lent, -(o)lent (-lentus)

‘full of’, ‘disposed to’

- fraudulent, purulent, sanguinolent, virulent

-ulous (-ulus)

‘tending to’, ‘inclined to’

- incredulous, tremulous, garrulous

-uous (-uus, -uosus)

‘tending to’, ‘inclined to’

- continuous, assiduous, impetuous

Latin Roots I

ARBOR- (*arbor, arboris*)

‘tree’

- ARBOR-eous, treelike or pertaining to trees;
- ARBOR-iz-at-ion, a conformation or arrangement resembling the branching of a tree

ARTICUL- (*articulus*)

‘joint’

- inter-ARTICUL-ar, between articulating parts of bones (applies to certain ligaments and fibrocartilages);
- BI-ARTICUL-ar, two-jointed

BUCC- (*bucca*)

‘cheek’, ‘mouth’

- BUCC-al, relating to the cheek or mouth;
- BUCCO-LINGU-al, pertaining to the cheeks and tongue;
- BUCCO-VERS-ion, condition of tooth’s being out of the line of the normal occlusion in the buccal direction

CAL- (*caleo*)

‘to be warm’

- CALE-FACI-ent, an externally applied medicine that causes a sensation of warmth;
- de-CAL-esc-ence, the decrease in temperature when rate of heat absorption exceeds rate of heat input

CARIN- (*carina*)

‘keel’

- CARINA, any keel-like structure, as at the tracheal bifurcation;
- para-CARIN-al, beside a carina, especially the urethral carina

CAUD- (*cauda*)

‘tail’

- e-CAUD-ate, without a tail;
- NUDI-CAUD-ate, having a tail not covered with hair or fur;
- SACRO-CAUD-al, pertaining to the sacrum and tail region

CEREBR- (*cerebrum*)

‘brain’

- CEREBR-al;
- CEREBR-in, a nitrogenous glycoside obtained from brain and similar tissue

CERN-, CRET-, CRE- (*cerno* → *cretus*)

‘to separate’, ‘to distinguish’, ‘to secrete’

- se-CERN-ment, secretion, applied to the function of a gland;
- in-CRET-ion, internal secretion,
- se-CRET-agogue, substance promoting or causing secretion

CID-, CIS- (*caedo/cido* → *caesus*)

‘to cut’, ‘to kill’

- MATRI-CIDE;
- REGI-CIDE;
- CON-CISE;
- suc-CISE, abrupt, appear as if a part were cut off;
- in-CIS-ura, a notch, depression or indentation, as in bone, stomach, liver, etc.

CILI- (*cilium*)

‘eyelid’, ‘eyelash’

- super-CILI-ous;
- CILIA, hairlike, vibratile outgrowths of the ectoderm;
- CILI-ata, a class of phylum Protozoa characterized by the presence of cilia;
- CILIO-GRADE; progressing by movement of cilia

CLUD-, CLUS-, CLOS- (*claudo* → *clusus*)

‘to close’, ‘to shut’

- con-CLUDE;
- in-CLUS-ive;
- e-CLOS-ion, the act of emerging from the pupal case, or of hatching from the egg;
- ex-CLUS-ion, the process of shutting out in a surgical operation by which part of an organ is disconnected but not excised

CORD- (*cor, cordis*)

‘heart’

- ac-CORD;
- con-CORD;
- CORD-ate, heart-shaped;
- sub-CORD-ate, tending to be heart-shaped;
- post-CORDI-al, situated behind the heart;
- pre-CORD-ium the area of the chest overlying the heart

CORN(U)- (*cornu, cornus*)

‘horn’

- CORNU-COPIA;
- UNI-CORN;
- BI-CORNU-te, with two hornlike processes;
- CAVI-CORN, hollow-horned, applies to some ruminants;
- CORNI-FIC-ation, degenerative process by which cells of epithelium are converted into dead, horny tissue

COST- (*costa*)

‘rib’

- COST-ate, with one or more longitudinal ribs or ridges;
- BI-COST-ate, having two longitudinal ridges or ribs, as a leaf;
- sub-COST-ALG-ia, pain beneath the ribs or over a subcostal nerve

CRUR- (*crus, cruris*)

‘leg’

- CRURA (pl. of CRUS); the shanks, or leg-like or columnar structures
- GENITO-CRUR-al, pertaining to genitalia and leg

CUB-, CUMB-, CUBIT- (*cubo* → *cubitus*; *cumbare*)

‘to lie’

- suc-CUMB;
- in-CUMB-ent;
- in-CUB-us;
- pro-CUMB-ent, prone, lying face down (in dentistry, said of a tooth whose long axis approaches the horizontal);
- suc-CUB-ous, with each leaf covering part of the leaf beneath it

CUR(R)-, CURS- (*curro* → *cursus*)

‘to run’, ‘to go’

- CURR-ent;
- oc-CUR;
- con-CUR;
- ex-CURR-ent, pertaining to ducts, channels or canals where there is an outgoing flow, or with an undivided main stem, or having midrib projecting beyond the apex

DENT- (*dens, dentis*)

‘tooth’ (*dens*)

- in-DENT;
- TRI-DENT;
- DENT-ition, the process of teething, or the arrangement of the teeth;
- DENT-in, a hard, elastic substance, chemically resembling bone, composing the greater part of teeth;
- DENT-icle, a small, toothlike process

DORM-, DORMIT- (*dormio* → *dormitus*)

‘to sleep’

- DORMIT-ory;
- ob-DORMIT-ion, numbness of a part due to interference with nervous function, sensation of a part ‘being asleep’;
- DORMIT-ive, inducing sleep

DORS- (*dorsum*)

‘back’

- ante-DORS-al, situated in front of the dorsal fin in fish;
- DORS-ALG-ia, pain in the back;
- DORSO-CAUD-ad, to or toward the dorsal surface and caudal end of the body

DUC-, DUCT- (*dux* → *ductus*)

‘to lead’, ‘to draw’

- DUCT;
- de-DUCT-ion;
- ab-DUCT-ion, withdrawal of a part from the axis of the body or of an extremity;
- LEVO-DUCT-ion, movement to the left, especially of the eye

ERR- (*erro*)

‘to wander’, ‘to deviate’

- ERR;
- ERR-or;
- ERR-ata;
- ERR-ant, with a tendency toward moving, straying or deviating

FEBR- (*febris*)

‘fever’,

- FEBR-ile, pertaining to or characterized by fever;
- FEBR-icula, a slight and transient fever

FER- (*ferro*)

‘to bear’, ‘to carry’, ‘to produce’

- suf-FER;
- re-FER;
- trans-FER;
- af-FER-ent, bringing toward (applies to nerves carrying impulse to nervous centres);
- OVI-FER-ous, serving to carry eggs;
- PROLI-FER-ate, to multiply

NOTE: not to be confused with the similar FERR- ‘iron’ of List 9.

FET- (FOET-) (*fetus/foetus*)

‘offspring’ ‘fetus’

- FET-at-ion, the formation of a fetus, pregnancy;
- ex-FET-at-ion, extopic or extrauterine pregnancy

FLEX-, FLECT- (*flexo* → *flectus*)

‘to bend’

- re-FLECT-ion;
- re-FLEX, an involuntary, invariable, adaptive response to a stimulus;
- retro-FLEX-ion, the state of being bent backwards

FOLI- (*folium*)

‘leaf’

- FOLI-age;
- FOLI-aceous, having the form or texture of a foliage leaf;
- pre-FOLI-at-ion, the form and arrangement of foliage leaves in a bud;
- ef-FOLI-at-ion, shedding of leaves

NOTE: not to be confused with the similar FOLL(I)- ‘bag’ of List 8.

FRANG- (-FRING-), FRAG-, FRACT- (*frango* → *fractus*)

‘to break’, ‘to bend’

- FRACT-ion;
- FRAG-ment;
- FRACT-ure; re-
- FRACT, to cause the deviation of a ray of light from a straight line in passing obliquely from one transparent medium to another of different density

FUND-, FUS- (*fundo* → *fusus*)

‘to pour’, ‘to melt’ (through French, FOUND-)

- FUS-ion;
- FUSE;
- dif-FUSE, spread out;
- per-FUS-ion, the introduction of fluids into tissues by their injection into arteries, or the passage of fluids through spaces

GRAD-, GRESS- (*gradior* → *gressus*)

‘to step’, ‘to go’

- DIGITI-GRADE, walking with only digits touching the ground;
- ORTHO-GRADE, walking or standing in the upright position;
- sub-PLANTI-GRADE, incompletely plantigrade, walking with the heel slightly elevated

GREG- (*grex, gregis*)

‘flock’,

- con-GREG-ate;
- se-GREG-ate;
- e-GREG-ious;
- GREG-arious, tending to herd together, or growing in clusters

HER-, HES- (*haereo* → *haesus*)

‘to stick’

- ad-HER-ent, attached to a substratum;
- co-HES-ion, the attractive force between the same kind of molecules;
- ad-HESIO-tomy, the surgical cutting or division of adhesions

JECT- (JACUL-) (*iacio* → *iectus*)

‘to throw’; ‘dart’ (*jaculum*)

- e-JECT;
- re-JECT;
- pro-JECT-ile;
- OVI-JECT-or, a highly muscular part of the oviduct in many nematode worms that forces the eggs through the genital pore;
- JACULAT-ory, darting out, capable of being emitted

LACT- (*lac, lactis*)

‘milk’

- LACT-at-ion, the period during which the child is nourished from the breast, or the formation or secretion of milk;
- LACTI-FER-ous, forming or carrying milk

LATER- (*latus, lateris*)

‘side’

- LATERI-GRADE, walking sideways, as a crab;
- ambi-LATER-al, relating to or affecting both sides;
- HETERO-LATER-al, pertaining to or situated on the opposite

LINGU- (*lingua*)

‘tongue’, ‘language’

- LINGU-ist-ics;
- BI-LINGU-al;
- FISSI-LINGU-al, having a bifid or cleft tongue;
- LINGUO-VERS-ion, displacement of a tooth on the lingual side of its proper occlusion

MEDI- (*medius*)

‘middle’

- MEDI-ate;
- MEDIO-DORS-al, on the median line of the back

MENT- (*mentum*)

‘chin’

- MENT-al, pertaining to the chin;
- sub-MENT-al, beneath the chin;
- MENT-alis, a muscle of the lower lip

NOTE: don’t confuse with homonymous MENT- ‘mind’ of List 8.

MUR- (*murus*)

‘wall’

- inter-MUR-al, situated between the walls of an organ;
- extra-MUR-al, outside the wall of an organ;
- MUR-al, pertaining to a wall, as a mural pregnancy

NOMIN-, NOM- (*nomen, nominis*)

‘name’

- NOMIN-al;
- NOMINAL-ism;
- para-NOM-ia, nominal aphasia, characterized by an inability name objects;
- BI-NOM-ial, consisting of two names

NOTE: Don’t confuse with the similar Greek compound suffix -nomy ‘science of’ in List 2.

OV- (*ovum*)

‘egg’

- OV-ul-at-ion;
- BIN-OV-ular, pertaining to two ova, applies to twinning;
- OVI-CIDE, an insecticide effective against an egg stage

PLIC-, PLICIT- (*plico → plicatus*)

‘to fold’

- PLICA, a fold of skin or membrane;

- com-PLIC-ate, folded (said of leaves or of insect wings);
- PLIC-at-ion, the act or process of folding

PON-, POSIT-, -POSE (*pono → positus*)

‘to place’, ‘to put’ (through French, POUND-)

- ex-PON-ent;
- im-POUND;
- ap-POSIT-ion, the state of being in juxtaposition or proximity;
- trans-POSIT-ion, a change of position

POT- (*possum → potui*)

‘to be powerful’

- POT-ent-ial;
- OMNI-POT-ent;
- UNI-POT-ent, giving rise to only one cell or tissue type (said of an embryonic or multiplying cell);
- POT-ent-at-ion, effect of a substance which, when, added to another, makes the latter more potent as a drug

PUR- (*pus, puris*)

‘pus’

- PUR-ulent, containing, consisting of, or forming pus;
- sup-PUR-ate, to form pus;
- PURO-HEPAT-itis, suppurative inflammation of the liver

RADI- (*radius*)

‘spoke of a wheel’, ‘ray’

- RADI-ate;
- RADIO-re-CEPT-or, a terminal organ for receiving light or temperature stimuli;
- RADI-ole, a spine of a sea urchin;
- RADIO-therapy treatment of disease by x-rays, radium and other radioactive substances

REN- (*ren, renis*)

‘kidney’

- ad-REN-al, adjacent to the kidneys, or relating to or derived from adrenal glands or their secretion;
- sub-REN-iform, slightly kidney-shaped;
- RENO-TROP-ic, specifically attracted to kidney tissue

RUG- (*ruga*)

‘wrinkle’

- RUGA, a fold or wrinkle, as of the mucous membrane of certain organs;
- RUG-os-ity, a condition exhibiting many folds in a tissue or integument

SANGUI(N)- (*sanguis, sanguinis*)

‘blood’

- SANGU-ine;
- SANGUI-MOT-or, of or relating to the circulation of blood;
- con-SANGUIN-eous, related by birth or blood

SEMIN- (*semen, seminis*)

‘seed’

- dis-SEMIN-at-ion;
- SEMIN-al;
- SEMIN-at-ion, dispersal of seeds, discharge of spermatozoa;
- SEMIN-uria, discharge of semen in the urine

SICC- (*siccus*)

‘dry’

- ex-SICC-ata, dried specimens;
- ex-SICC-ant, drying or absorbing moisture;
- SICC-ant, drying, tending to make dry

SON- (*sonus*)

‘sound’

- ultra-SON-ic, pertaining to sounds with a frequency above that of audible sound;
- SONI-FIC-at-ion, the act or process of producing sounds, as stridulation of insects

SUD- (*sudo*)

‘to sweat’

- ex-SUD-at-ion, process of oozing out slowly;
- SUDORI-FIC, inducing sweating;
- SUD-at-orium, a hot air bath or a room for such a bath

TEG-, TECT- (*tego* → *tectus*)

‘to cover’

- pro-TECT;
- de-TECT;
- TEG-men, the inner seed coat, or a covering structure or roof, esp. the thin plate over the tympanic atrium;
- sub-TEG-min-al, under the tegmen or inner coat of a seed

TRUD-, TRUS- (*trudo* → *trusus*)

‘to push’, ‘to thrust’

- in-TRUDE;
- in-ob-TRUS-ive;
- ex-TRUS-ion, a forcing out (in dentistry, extension of a tooth beyond the occlusal plain)

TUSS- (*tussis*)

‘cough’

- TUSS-ive, pertaining to or caused by a cough;
- TUSS-ilago, a genus of plants used as a remedy for cough

VAL- (*valeo*)

‘to be strong’, ‘to be well’

- VAL-id;
- VALE-DICT-ory;
- bi-VAL-ent, applies to paired homologous chromosomes;
- VAL-ence, capacity of atoms to combine with other atoms in different proportions

VARIC- (*varix, varicis*)

‘twisted and swollen (vein)’

- VARIC-ose, descriptive of blood vessels that are dilated, knotted and tortuous;
- NEURO-VARIC-osis, a varicosity on a nerve fibre;
- VARIX (pl. varices), prominent ridges across the whorls of univalve shells;
- VARIC-eal, relating to or involving a varix;
- VARICO-cele, a mass of varicose veins in the spermatic cord

VEN- (*vena*)

‘vein’

- RECTI-VEN-ous, having straight veins;
- VEN-at-ion, the system or disposition of veins;
- VEN-ule, small vein of a leaf or insect wing

VERT-, VERS- (*verto* → *versus*)

‘to turn’

- VERTEX, the highest point (Latin ‘whirlpool, crown of a head’), from which the word *vertical* comes;
- a-VERS-ion;
- VERS-at-ile, hung or attached near the middle and moving freely, as an anther;
- VERSI-COLOUR-ed, changing from one colour to another in different lights

Vocabulary List 7

Latin Noun-Forming Suffixes

-ance, -ancy; -ence, -ency (-antia, -entia)

‘quality of being’, ‘state of being’

- vigilance, hesitancy, eloquence, innocence, fluency

-ary (-arium)

‘place for’, ‘apparatus’

- mortuary, library, infirmary, aquarium, sanitarium, herbarium

-ble, -bul- (-bula, -bulum)

‘result of the act of’, ‘means of’, ‘place for’

- fable, fabulous, mandible, mandibular, pabulum, infundibulum

-cle, -cul- (-culum)

‘result of the act of’, ‘means of’

- spectacle, receptacle, obstacle, tentacle, tentacular, curriculum, vinculum, tentaculum

-crum, -cr- (-crum)

‘result of the act of’, ‘means of’

- fulcrum, simulacrum, involucrum, involucral

-ion (-io)

‘act of’, ‘state of’, ‘result of the act of’

- action, commotion, incision

-itude (-itudo)

‘quality of’, ‘state of’

- longitude, multitude, gratitude

-ity (-ety, -ty) (-itas)

‘quality of’, ‘state of’

- gravity, dexterity, brevity

-men, -min- (-men)

‘result of’, ‘means of’, ‘act of’

- specimen, regimen, acumen, acuminate

-ment (-mentum)

‘result of’, ‘means of’, ‘act of’

- ligament, ferment, excrement, momentum

-or (-or)

‘she or he who’, ‘that which’

- actor, motor, victor, incisor

NOTE: You may come across the suffix -trix, which is the Latin feminine ending which corresponds to the Latin masculine -or. So Director vs. Directrix. Modern English has largely done away with the -trix ending, using -or for all genders, but it still lingers.

-ory (-orium)

‘place for’, ‘apparatus’

- dormitory, lavatory, auditorium, sanatorium

-ure (-ura)

‘act of’, ‘result of the act of’

- rupture, capture, fracture

-us (-us)

‘act of’, ‘result of the act of’

- prospectus, consensus, impetus

-or (-our) (-or)

‘state of’, ‘result of the act of’

- tumour, pallor, error

-trum, -tr- (-trum)

‘result of the act of’, ‘means of’

- spectrum, rostrum, claustrum, claustrophobia

-tude (-tudo)

forms abstract nouns

- beatitude, solitude

-y (-ia)

‘quality of’, ‘state of’, ‘act of’

- misery, modesty, perjury, neuralgia, insomnia, asonia

Latin Roots II

ACIN- (*acinus*)

‘grapes in a cluster’

- ACIN-ar, pertaining to an acinus, a small seed or kernel, as of a grape;
- inter-ACIN-ar, among alveoli of a racemose gland;
- ACIN-iform, grape- or berry- shaped (applied to a silk gland in a spider)

AL- (*ala*)

‘wing’,

- ALA, any winglike projection or structure;
- ex-AL-ate, not having winglike appendages, apterous;
- ALI-FER-ous, having wings;
- ALI-NOT-um, the dorsal plate of an insect to which wings are attached

ANNUL- (*annulus*)

‘ring’

- ANNULUS, any ringlike structure;
- ANNUL-ose, possessing rings

APIC- (*apex, apicis*)

‘tip’, ‘summit’, ‘apex’

- sub-APIC-al, nearly at the apex;
- peri-APIC-al, around an apex;
- APIC-ul-ate, forming abruptly to a small tip, as a leaf

AQU(A)- (*aqua*)

‘water’

- AQUA-tic,
- AQUE-DUCT;

- AQUI-FER, a water-bearing bed or stratum of permeable rock, sand or gravel;
- AQUA REGIA, a mixture of nitric and hydrochloric acids which dissolves gold

ARGENT- (*argentum*)

‘silver’

- ARGENT-eous, like silver;
- ARGENTI-FER-ous, producing or containing silver;
- ARGENT-in-idae, family of small, silvery marine fishes

AUD-, AUDIT- (*audio* → *auditus*)

‘to hear’

- AUDIT-orium;
- AUDIT-ion;
- AUDIO-meter, an instrument for measuring the acuity and range of hearing;
- AUDIT-ive or AUDIT-ory, pertaining to heard sounds or the sense of hearing

BREV- (*brevis*)

‘short’

- BREV-ity;
- ab-BREVI-ate;
- BREVI-PED, having short legs;
- BREVI-FOLI-ate, having short leaves;
- BREVI-LINGU-al, with a short tongue

BULL-, BULLI- (*bullā*)

‘bubble’, ‘blister’ ‘to boil’ (*bullire*)

- BULLA, a large bleb or blister forming either within or beneath the epidermis and filled with lymph;
- VESI-oluo-BULL-ous, characterized by both vesicles and bullae at the same time

NOTE: Not to be confused with the similar Greek root BUL- ‘will’ of List 1.

CAD-, (-CID-), CAS- (*cado* → *cecidī*, *casus*)

‘to fall’, ‘to befall’

- CAD-ence;
- de-CAD-ent;
- de-CID-uous;
- in-CID-ence, the act or manner of falling upon; the way in which one body strikes another, as angle of incidence

CAMER- (*camera*)

‘chamber’

- CAMERA; CAMER-ation, division into a number of separate chambers;
- UNI-CAMER-al, having only one cavity or chamber

CAN- (*canis*)

‘dog’

- CAN-in-idae, family which includes dogs, wolves and jackals;
- CAN-in-iform, having the form of a typical canine tooth

NOTE: Not to be confused with the homonymous CAN- ‘white’ of List 10.

CAP- (-CIP-), CAPT- (-CEPT-) (*capiō* → *captus/ceptus*)

‘to take’, ‘to seize’

- CAPT-ive;
- re-CEPT-ion;
- CON-CEPT-ion;
- EXTERO-CEPT-or, a receptor which receives stimuli from outside the body

CAPILL- (*capillus*)

‘hair’

- CAPELL-ini;
- CAPILL-ary;
- CAPILL-ar-ec-TAS-ia, dilatation of the capillaries;
- CAPILL-aceous, having hairlike filaments

CAPIT- (-CIPIT-) (*caput*, *capitis*)

‘head’

- CAPIT-al; BI-CEPS;
- CAPIT-ulum or CAPIT-ellum, knoblike swelling on the end of bone;
- CAPIT-ell-idae, family of worms with small heads

COL- (*colo*)

‘to inhabit’

- FUNGI-COL-ous, living in or on fungi;
- LATEBRI-COL-ous, inhabiting holes;
- DESERTI-COL-ous, desert-inhabiting;
- RADICI-COL-ous, with the flower seated immediately upon the crown of a root, or dwelling in the root, as a parasite

NOTE: not to be confused with the similar Greek roots COL- ‘neck’ and COLL(A)- ‘glue’ of List 2 and 5 or the homonymous Latin roots COL- ‘below’.

COLL- (*collum*)

‘neck’

- COLL-ar bone, the clavicle;
- TORTI-COLL-ar, affected with wry-neck or TORTI-COLL-is

NOTE: See above note.

CORI- (*corium*)

‘skin’

- CORIUM, the deep layer of the skin;
- CORI-aceous, leathery (applies to leaves);
- CORI-aria, a genus of poisonous shrubs used in dyeing and tanning

CORON- (COROLL-) (*corona*)

‘crown’; ‘little crown’ (*corolla*), diminutive form.

- COROLLA, the petals of a flower;
- COROLL-aceous, pertaining to a corolla;
- CORON-illa, genus of flowers named for crown-shaped flowers

CORTIC-, CORT- (*cortex, corticis*)

‘bark’, ‘outer layer’

- CORTEX, outer or more superficial part of an organ, the cerebral cortex;
- infra-CORTIC-al, beneath the cortex;
- CORTICI-PET-al, conducting toward the cortex

CREPIT- (*crepito*)

‘to creak’, ‘to crackle’

- de-CREPIT;
- de-CREPIT-at-ion, the breaking up or crackling of certain crystals on heating;
- CREPIT-at-ion or CREPIT-at-io or CREPITUS, the grating of fractured bones, or the crackling of a joint

CRIST- (*crista*)

‘crest’

- CRISTA, a crest;
- CRISTA TERMIN-alis, crest on the wall of the right atrium; inter-
- CRIST-al, between the surmounting ridges of a bone, organ or process (used particularly in intercrystal diameter of pelvis, the distance between two clear crests)

CRUC- (*crux, crucis*)

‘cross’

- CRUCI-FY; ex-CRUCI-at-ing;
- CRUCI-FER, a plant with four petals and tetradynamous stamens, a member of the family Cruciferae;
- CRUCI-ate, cross-shaped

CUNE- (*cuneus*)

‘wedge’

- CUNE-iform;
- CUNE-ate, wedge-shaped;
- prae-CUNE-us, the medial surface of the parietal or the quadrate lobe of the cerebrum

DUR- (*durus*)

‘hard’, ‘dura mater’

- en-DURE;
- ob-DUR-ate;
- in-DUR-at-ion, the hardening of a tissue or part;
- epi-DUR-al, space between the dura mater and the wall of the vertebral canal;
- DUR-amen, hard darker central region of a tree stem, heart-wood

ENS- (*ensis*)

‘sword’

- ENS-iform, sword-shaped, as the ensiform cartilage

EQU- (*equus*)

‘horse’

- EQU-estrian;
- EQU-it-at-ion;
- EQU-it-ant, overlapping saddle-wise, as leaves in a leaf-bud;
- EQU-idae, family of mammals having a single extant genus, *Equus*, which includes the horse, ass and zebra

FALC- (*falx, falcis*)

‘sickle’

- FALX, sickle-shaped fold of dura mater;
- FALC-ate, sickle-shaped, hooked

FAEC- (FEC-) (*faeces*)

‘excrement’, ‘sediment’

- FAECA-LITH, concretion or calcified mass of faecal material (= COPRO-LITH);
- FAEC-al-oid, resembling faeces;
- FAEC-ula, the faecal pellet of an insect

FLA-, FLAT- (*flare* → *flatus*)

‘to blow’

- ex-suf-FLAT-ion, forced discharge of breath;
- FLAT-ul-ence, having gas in the stomach and intestinal tract

FLOR- (*flos, floris*)

‘flower’

- FLOR-ist;
- FLOR-id;
- ef-FLOR-esc-ence, eruption of exanthemous disease;
- extra-FLOR-al, situated outside the flower;
- pre-FLOR-at-ion, the form and arrangement of flowers in the bud

FORNIC- (*fornix, fornicis*)

‘arch’

- FORNIX, an arched body or surface, such as the fornix cerebri;
- FORNIC-al, like or pertaining to a fornix

FUG- (*fugo*)

‘to flee’, ‘to put to flight’

- re-FUGE;
- FUGI-tive;
- NIDI-FUG-ous, leaving the nest soon after hatching;
- CEREBRI-FUG-al, applies to nerve fibres which pass from the brain to the spinal cord;
- LACTI-FUGE, a drug or agent that lessens the secretion of milk

GER-, GEST- (*gero* → *gestum*)

‘to carry’, ‘to bear’

- di-GEST, to convert food in assimilable form;
- in-GEST, to take substances into the body;
- OVI-GER, a leg modified for carrying the eggs in some pycnogonids (sea spiders)

NOTE: not to be confused with the Greek root GER- ‘old’ of List 1.

GRAV- (*gravis*)

‘heavy’

- in-GRAV-esc-ent, increasing in weight or severity;
- GRAVI-GRADE, any of several large, heavy-footed mammals, as elephants;
- PRIMI-GRAV-ida, a woman who is pregnant for the first time

GUTT- (*gutta*)

‘drop’

- GUTT-er; GUTT-ate, having drop-like markings;
- GUTT-at-ion formation of drops of water on plants;
- GUTT-iform, drop-shaped;

- GUTT-ul-ate, in the form of a small drop, as markings

JAC- (*iacio*)

‘to lie’

- ad-JAC-ent, lying nearby, having a common border;
- sub-JAC-ent, lying beneath

LAB-, LAPS- (*labo*; *lapso*)

‘to slip’, ‘to fall’, ‘to glide’

- LAPSE;
- col-LAPSE;
- re-LAPSE;
- LAB-ile, unstable, readily changing, moving from place to place;
- LAB-il-ity, in psychiatry, very rapid fluctuation in intensity and modality of emotions

NOTE: careful not to confuse with similar LABI- ‘lip’ of List 9

LACRIM- (LACHRYM-) (*lacrima*)

‘tear’

- LACRIM-al, pertaining to tears or to tear-secreting organs, the lacrimal bone;
- NASO-LACRIM-al, pertaining to the nose and lacrimal apparatus

LACUN- (*lacuna*)

‘small pit’, ‘gap’

- LACUNA, a space between cells; a sinus; a cavity in bone; a small cavity or depression on the surface of lichens; a leaf gap;
- LACUN-oso-RUG-ose, having deep furrows or pits, as some seeds and fruits

LIMIN- (*limen, liminis*)

‘threshold’

- e-LIMIN-ate;
- LIMEN, threshold, minimum stimulus or quantitative difference in stimulus that is perceptible, or boundary;
- LIMEN NASI, boundary between the osseous and cartilaginous portions of the nasal cavity;
- LIMIN-al, pertaining to a threshold, applies to stimulus, sensations

LINE- (*linea*)

‘line’

- LINE-ar;
- de-LINE-ate;
- LINE-at-ion, an arrangement of lines;
- LINE-ol-ate, marked by fine lines or striae

LUC- (*lux, lucis*)

‘light’, ‘to shine’

- LUC-id;
- e-LUC-id-ate;
- NOCTI-LUC-ent, phosphorescent, luminescent;
- LUCI-FUG-al, fleeing from or avoiding light

MAL- (*mala*)

‘cheek’, ‘cheekbone’

- MAL-ar, pertaining to the cheek or to the zygoma

NOTE: Don’t confuse with *similae* MAL(E)- ‘bad’ and MALLE ‘hammer’ of List 10

MATR-, MATERN- (*mater; maternus*)

‘mother’

- MATRO-CLIN-ous, derived from or inherited from the maternal line;
- MATR-ix, something within which something else originates or takes form or develops

MOLL- (*mollis*)

‘soft’

- MOLL-ities, softness;
- MOLL-SOL, surface layer of permanently frozen ground in which ice melts during the summer;
- e-MOLL-ient, a substance used externally to soften the skin

MONT- (*mons, montis*)

‘mountain’

- MONTI-COL-ous, inhabiting mountainous regions;
- MONT-iculus, largest part of the superior vermis of the cerebellum;
- MONT-icules, small eminences or prominences

MORB- (*morbus*)

‘disease’

- MORB-id;
- MORB-ose;
- *morbus anglicus*, rickets;
- *morbus divinus* or *morbus caducus*, epilepsy;
- *morbus hungaricus*, typhus

MOV-, MOT- (*moveo* → *motus*)

‘to move’

- pro-MOTE;
- de-MOT-ion;
- OCULO-MOT-or, causing movements of the eyeball (applies to the third cranial nerve);
- VENO-MOT-or, causing veins to contract or dilate

MULT- (*multus*)

‘many’

- MULTI-CARIN-ate, having many carinae or ridges;
- MULTI-COST-ate, with many ribs, ridges or veins;
- MULTI-OCUL-ur, many-eyed

NAEV- (NEV-) (*naevus*)

‘birthmark’, ‘mole’

- NAEVUS, birthmark;
- NAEV-al, of or related to a naevus;
- NAEVO-XANTHO-endo-THELI-oma, a group or group of yellowish brown nodules sometimes found on extremities in early childhood

NASC-, NAT- (*nascor* → *natus*)

‘to be born’

- NAT-ive,
- NAT-ure;
- NAT-ion;
- ad-NATE, congenitally attached or united;
- in-NATE, inherited, present from birth;
- ante-NAT-al, occurring or existing before birth, prenatal

NID- (*nidus*)

‘nest’

- NID-at-ion, the renewal of uterine lining between menstrual periods;
- de-NID-at-ion, disintegration and ejection of superficial part of uterine mucus;
- NID-ament-al, applies to glands which secrete material for an egg-covering

OCUL- (OCELL-) (*oculus*)

‘eye’; ‘little eye’ = *ocellus*, Diminutive form

- MON-OC-le;
- OCELL-ate, like an eye or eyes, applies to marking in many animals;
- TRANS-OCUL-ar, extending across the eye;
- MON-OCULE, a one-eyed animal

PALAT- (*palatum*)

‘palate’, ‘roof of the mouth’

- PALAT-ine, pertaining to or in the region of the palate (said of artery, bone, foramen);
- PALAT-itis, inflammation of the palate;
- PALAT-iform, resembling the palate

PARIET- (*paries, parietis*)

‘wall’

- PARIES, wall of a hollow structure;
- PARIET-al, pertaining to or forming part of the wall of a structure (of cells, membrane, etc.), also the parietal bone in the roof of the skull;
- UTERO-PARIET-al, pertaining to the uterus and abdominal wall

PATI-, PASS- (*patior* → *passus*)

‘to suffer’, ‘to endure’

- PATI-ent;
- PASS-ion, an intense emotion; com-
- PAT-ibil-ity, congruity; the power of a medicine or a substance in a medicine to mix with another without deleterious chemical change or loss of therapeutic power; refers also to blood types

PLAN- (*planus*)

‘flat’

- PLANE;
- de-PLAT-ate, levelled, flattened;
- PLAN-at-ion, a process of erosion that produces flat surfaces;
- PLAN-ula, very young, flat-bodied larva or free-swimming coelenterates

NOTE: don’t confuse with Greek root PLAN- ‘wandering’ of List 4.

PLANT- (*planta*)

‘sole of the foot’, ‘sprout’

- PLANTA-, the sole of the foot, or the first tarsal joint of insects;
- PLANTI-GRADE, walking on the full sole of the foot;
- im-PLANT;
- trans-PLANT-at-ion

PONT- (*pons, pontis*)

‘bridge’

- PONT-oon;
- PONTI-FF;
- PONS, a process or bridge of tissue connection two parts of an organ, or a convex white eminence situated at the base of the brain;
- CEREBRO-PONT-ine, relating to cerebrum and pons;
- PONTO-BULB-ar, pertaining to the pons and the medulla oblongata

PRUR-, PRURIT- (*prurio* → *pruritus*)

‘to itch’

- PRURITUS, itching;
- anti-PRURIT-ic, relieving or preventing itching;
- PRUR-igo, a chronic inflammatory disease of the skin characterized by itching

PULVER-, PULV- (*pulvus, pulveris*)

‘dust’

- PULVER-ize;
- PULVI-PLUME, a powder-down feather;
- PULVER-aceous, covered with a layer of powdery granules

PULVIN- (PULVIL-) (*pulvinus*);

‘cushion’; ‘little cushion’ (*pulvillus*), diminutive form.

- PULVINUS, a cellular swelling at the junction of axis and leaf stalk;
- PULVILLUS or PULVIN-ulus, pad, process or membrane on the foot or between the claws, the lobe between each claw

RADIC- (*radix, radice*)

‘root’

- RADIC-al;
- e-RADIC-ate;
- RADIC-ul-ose, having many rootlets;
- MONO-RADIC-ul-ar, having only one root;
- MYELO-RADIC-ul-itis, inflammation of spinal cord and roots of spinal nerves

RAM- (*ramus*)

‘branch’

- RAMI-fic-at-ion;
- RAM-ate, branched;
- BI-RAM-ose, divided into two branches;
- RAMI-FLOR-ous, having flowers on branches

REG- (*-RIG-*), RECT- (*regere* → *rectus*)

‘to make straight’, ‘to rule’ (*regere*, v.);
‘straight’, ‘rectum’ (*rectus*, adj.)

- REG-ent;
- di-RECT;
- ar-RECT-or a muscle which erects;
para-RECT-al, beside or near the rectum;
- REG-imen, a systematic plan or course to maintain or improve health

RET- (*rete*)

‘net’, ‘network’

- RETE, a network or net;
- RET-ina, the light-receptive layer and terminal expansion of the optic nerve in the eye;
- RET-icle or RET-iculum, a delicate network of cell protoplasm

ROSTR- (*rostrum*)

‘beak’

- ROSTRUM, beak or beaklike process;
- LONGI-ROSTR-al, with a long beak;
- ROST-ell-iform, shaped like a small beak

RUMP-, RUPT- (*rumpe* → *ruptus*)

‘to break’, ‘to burst’

- ab-RUPT;
- inter-RUPT;
- ab-RUPT-ion;
- RUPT-ure, a forcible tearing of a part, or a hernia;
- RUPT-io, rupture of a vessel or organ

SAX- (*saxum*)

‘rock’

- SAXI-CAV-ous, applies to rock-borers (as some molluscs), lithophagous;
- SAXI-FRAGE, plant of the family Saxifraga, perennial herbs frequently found growing in rock crevices;
- SAXI-COL-ous, inhabiting or growing around rocks

SCIND-, SCISS- (*scindo* → *scissus*)

‘to cut’, ‘to split’

- re-SCIND;
- SCISS-ile, separating, easily split;
- ab-SCIND, to cut off;
- dis-SCISS-ion, state of being torn apart

SCUT- (*scutum*)

‘shield’

- ESCUT-cheon;
- SCUTE, an external scale, as of reptiles, fish or scaly insects;
- SCUT-ate protected by large scales or horny plates

SEN- (*senex*)

‘old’

- SEN-ior; SEN-ate;
- pre-SEN-il-ity, premature old age;
- SEN-OP-ia, the change of vision in the aged in which persons formerly myopic acquire what seems to be normal vision because of presbyopia

SERR- (*serra*)

‘saw’, ‘saw-tooth’

- SIERRA;
- SERR-at-iform, like a saw;
- sub-SERR-ate, somewhat notched or saw-toothed;
- SERRI-CORN-ia, a genus of beetles with saw-toothed antennae

STERCOR-, STERC- (*stercus, stercoris*)

‘excrement’

- STERCO-BIL-in, the brown pigment of faeces;
- STERC-oma, a fecalith, a hard faecal mass, usually in the rectum;
- STERC-ul-ia, a type of plant with a fetid odour

SULC- (*sulcus*)

‘furrow’, ‘groove’

- SULC-ate, furrowed, grooved;
- BI-SULC-ate, having two grooves;
- SULCO-MARGIN-al, situated at the margin of the spinal cord adjacent to the ventral median fissure

TANG- (-TING-), TIG-, TACT- (*tango* → *tactus, -tingere*)

‘to touch’

- con-TACT;
- con-TING-ent;
- TACT-ile, pertaining to the sense of touch;
- a-TACT-ia, loss of the tactile sense;
- MYO-TACT-il-ic, relating to the muscular sense

TORQU-, TORT-, TORS- (*torqueo* → *torsi, tortus*)

‘to twist’

- TORT;
- re-TORT;
- TORT-ure;
- dis-TORS-ion, the act of twisting;
- LATERO-TORS-ion, a twisting to one side; con-TORTU-PLIC-ate, applies to a bud with contorted and plicate leaves

VERM- (*vermis*)

‘worm’

- VERMI-celli;
- VERM-icul-at-ion, wormlike or peristaltic movement, or fine, wavy markings;
- VERMI-LINGU-al, having a worm-shaped tongue;
- VERMI-PAR-ous, producing wormlike young, as do blowflies

VESIC- (*vesica*)

‘bladder’, ‘blister’

- VESIC-le, a small bladder, especially a small sac containing fluid, a small bulla;
- peri-VESICUL-itis, inflammation around a seminal vesicle;
- VESIC-at-ion, the formation of a blister, or a blister itself.

Vocabulary List 8

Latin Diminutive Suffixes (Noun-forming, mostly)

-cule, -cle (-culus, -cula, -culum)

‘little’

- molecule, muscle, particle

NOTE: -cule can also form adjectives, like miniscule or majuscule

-el (-ellus, -ella, -ellum)

‘little’

- tunnel, scalpel, morsel, lamella, flagellum, capitellum, cerebellum

-ette, -et

‘little’ (of French origin, but attaching to Latin roots)

- statuette, cornet, lancet

-il (-illus, -illa, -illum)

‘little’

- codicil, pupil, fibril, fibrilla, Priscilla, armadillo

-ule, -ole, -le (-ulus, -ula, -ulum; -olus, -ola, -olum; -leus, -lea, -leum)

‘little’

- globule, granule, arteriole, circle, scruple, gladiolus, formula, cupola, capitulum

-uncle (-unculus)

‘little’

- carbuncle, avuncular, furnuncle, pedunculus, ranunculus

Latin Roots III

AC(U)- (*acus*)

‘sharp’, ‘sour’, ‘needle’

- ACU-PUNCT-ure;
- ACU-ol-ate, beset with small prickles;
- ACUTI-COST-al, having projecting ribs

ADIP- (*adeps, adipis*)

‘fat’

- ADIP-os-ity, corpulence, obesity

AMBUL- (*ambulo*)

‘to walk’

- AMBLE;
- AMBUL-ance;
- AMBUL-ant or AMBUL-at-ory, walking or able to walk, designating a patient not confined to bed but requiring medical care;
- SOMN-AMBUL-ism, sleepwalking

ANS- (*ansa*)

‘jug handle’, ‘loop’

- ANSA, loop, as of certain nerves;
- ANSA CERVIC-alis, a nerve loop in the neck

ARE- (*area*)

‘space’

- ARE-ola, any minute interstice or space in a tissue; or a pigmented ring surrounding some central point or space, as a nipple or a pustule, or the part of the iris enclosing the pupil;
- ARE-ol-et, a small areola

AUR- (*auris*)

‘ear’

- end-AUR-al, pertaining to the inner surface or part of the external auditory canal;
- AUR-icle, any ear-like, lobed appendage, or the external ear, or the atrium, or anterior chamber, of the heart

CALC- (*calx, calcis*)

‘limestone’, ‘pebble’, ‘calcium’

- CALC-ulus;
- CALCI-COLE, a plant that thrives in soils rich in calcium salts;
- CALCI-FIC-at-ion, the deposition of lime salts in tissue;
- CALC-ar-eous, containing calcium carbonate (chalky)

NOTE: don’t confuse with the root CALCAR- ‘spur’ and CALC ‘heel’ of Lists 9 and 10.

CALL- (*callus*)

‘hard skin’

- CALL-ous, pertaining to an are of hardened and thickened skin, a CALLUS;
- CORPUS CALLOSUM, a structure of white matter in the brain

CAPS- (*capsa*)

‘box’

- CAPS-ule;
- en-CAPS-ul-at-ion, the process of surrounding a part with a capsule;
- de-CAPS-ul-at-ion, removal of a capsule or enveloping membrane

CAR(N)- (*caro, carnis*)

‘flesh’

- CARN-al;
- CARN-eous, flesh-coloured; in-
- CARN-at-ive, an agent which produces flesh or promotes granulation;
- CARNI-VOR-ous

CED-, CESS- (*cedo* → *cessus*)

‘to go’, ‘to yield’

- con-CEDE;
- intro-CESS-ion, a depression, as of a surface;
- pro-CESS, a prominence or outgrowth;
- suc-CED-an-eous, relating to or acting a substitute; pertaining to that which follows after, as a permanent tooth replacing a deciduous tooth

CRE-, CRESC-, CRET- (*cresco* → *cretus*)

‘to grow’

- in-CRE-ment;
- CRESC-ent;
- CRESC-endo;
- con-CRESC-ence, a growing together of the roots of two teeth;
- inter-CRESC-ence, a growing into each other, as of tissue

CUT- (*cutis*)

‘skin’

- intra-CUT-aneous, within the skin substance (applied to the injection of substances into the skin);
- CUT-in, a substance allied to cellulose found in external layers of thickened epidermal cells

NOTE: not to be confused with the homonymous CUT- ‘shake’ of List 9.

DEXTR- (*dexter, dextri*)

‘right’ (direction), ‘right hand’

- DEXTRO-DUCT-ion, movement of the visual axis toward the right

DIGIT- (*digitus*)

‘finger’, ‘toe’

- DIGIT-ule, any small, fingerlike process;
- SEX-DIGIT-ate, with six fingers or toes

FA-, FAT- (*fare* → *fatus*)

‘to speak’

- af-FA-ble;
- in-ef-FA-ble;
- FA-ble;
- in-FA-nt, a child, usually up to two years (in Latin, literally ‘not speaking’ or ‘without speech’)

FAC- (-FIC-), FACT- (-FECT-) (*facio* → *factus*)

‘to do’, ‘to make’

- FACT-ory;
- FACT; FICT-ion;
- ef-FIC-acious, having the power to bring about a desired effect;
- FAC-ul-tat-ive, voluntary, optional; having the power to do or not do a thing

FIBR- (*fibra*)

‘fibre’

- FIBR-il, a component filament of a fibre, as of a muscle or a nerve;
- FIBR-in, the fibrous, insoluble protein in the network involved in blood clotting

FID-, FISS- (*findo* → *fidi, fissus*)

‘to split’

- FISS-ure;
- FISS-ion;
- FISS-ile, fissionable;
- FISSI-ROSTR-al, with deeply cleft beak;
- PENTA-FID, divided in five divisions or lobes

FLU-, FLUX- (*fluo* → *fluxum*)

‘to flow’

- in-FLU-ence;
- FLU-ency;
- af-FLUX, flow of blood or other fluid to a part;
- con-FLU-ent, running together, the opposite of discrete; in anatomy, coalesced or blended (applied to two or bones originally separate)

FLUVI- (*fluvius*)

‘river’

- Fluvial
- FLUVI-al-ist, someone who explains geological and geographical phenomenon by the action of existing streams

FOLL(I)- (*follis*)

‘bag’

- FOLLI-cle, a capsular fruit which opens on one side only, or a cavity or sheath (as an ovarian or hair follicle), or a small secretory cavity or sac (as an acinus or alveolus);
- peri-FOLLI-cul-ar, surrounding a follicle

NOTE: not to be confused with the similar FOLI- ‘leaf’ of List 6.

FORMIC- (*formica*)

‘ant’

- FORMIC acid, a colourless acid occurring in ants and some plants;
- FORMIC-IDE, a substance used for destroying ants;
- FORMIC-at-ion, an abnormal sensation of insects crawling on the skin

FOSS- (*fossa*)

‘ditch’, ‘trench’, ‘to dig’

- FOSSA, a pit or trench-like depression;
- FOSS-ette, a small pit or a socket containing the base of the antennule in arthropods;
- FOSS-ori-al, adapted for digging (applies to the claws and feet of animals)

FUN- (*funis*)

‘rope’, ‘cord’

- FUN-ic, relating to or originating in the umbilical cord;
- FUNI-PENDUL-ous, suspended by a rope or cord

GUST- (*gusto*)

‘to taste’

- dis-GUST;
- GUST-at-ion, the sense of taste, the act of tasting;
- de-GUST-at-ion, the act of tasting;
- GUSTO-meter, an apparatus used to determine taste thresholds

HAUST- (*haurio* → *haustum*)

‘to draw out’, ‘to drink’

- ex-HAUST-ion;
- HAUST-ellum, a proboscis adapted for sucking;
- HAUST-orium, an organ of certain parasitic protozoa by which they attach themselves to the host

INSUL- (*insula*)

‘island’

- INSUL-ate;
- PEN-INSULA; INSULA, that portion of the cortex overlying the corpus striatum
- INSUL-oma, a tumour arising from the cells of the islets of the pancreas;
- INSUL-in, the antidiabetic hormone arising from the islets of Langerhans

JUNCT-, JUG- (*iungo* → *iunctus*; *jugum*)

‘to join’, ‘yoke’

- JUNCT-ion;
- sub-JUG-ate;
- con-JUG-at-ion, the temporary union or complete fusion of two gametes or unicellular organisms, or the pairing of chromosomes;
- dis-JUNCT-ion divergence of paired chromosomes at anaphase

LEV- (*laevus*)

‘left’ (direction), ‘left hand’

- LEVO-DUCT-ion, movement to the left, especially of the eye;
- LEVO-GYR-ate or LEVO-ROT-ary, rotating the plane of polarized light to the left

NOTE: don’t confuse with homonymous LEV- ‘light’ of List 9.

LOC- (*locus*)

‘place’

- LOC-al; al-LOC-ate;
- LOCO-MOT-ion;
- LOC-ellus, a small compartment of an ovary;
- BI-LOC-ul-ar, containing two cavities or chambers

LUN(A)- (*luna*)

‘moon’

- LUN-ate, crescent-shaped;
- SEMI-LUN-ar, half-moon-shaped;
- LUN-ette, the transparent lower eyelid of snakes

MACUL- (*macula*)

‘spot’, ‘stain’, ‘blot’

- im-MACUL-ate;
- MACULA, a spot or patch of colour, or a small pit or depression;
- MACULA LUTEA, the yellow spot on the retina, the point of clearest vision;
- MACUL-at-ion, the arrangement of spots on a plant or animal

TIP: the Latin *macula* became the modern Italian *macchia*. English speakers encounter it most when ordering a macchiato coffee, so-called because it looks “blotted”

MAGN- (*magnus*)

‘large’, ‘great’

- MAGN-ate;
- MAGN-ANIM-ous;
- MAGNI-LOQU-ent;
- MAGNI-fy, cause to appear larger;
- MAGN-itude, spacial quality or size

MAMM- (*mamma*)

‘breast’

- MAMM-al;
- MAMM-il-itis, inflammation of the
- MAM-illa, or nipple

MENT- (*mens, mentis*)

‘mind’

- MENT-at-ion, the mechanism of thought, mental activity;
- de-MENT-ia, deterioration or loss of the intellectual faculties, the reasoning power, etc.

NOTE: not to be confused with the homonymous MENT- ‘chin’ of List 6.

MORT- (*mors, mortis*)

‘death’

- MORT-al, liable to death or causing death;
- MORT-al-ity, the quality of being mortal or the death rate;
- NATI-MORT-al-ity, the proportion of stillbirths to the general birth rate

NERV- (*nervus*)

‘nerve’, ‘vein of insect wing or leaf’

- TRI-NERV-ate, having three veins or ribs running from the base to the margin of a leaf;
- ab-NERV-al, away from a nerve (of the direction of an electric current passing through muscle fibres away from the point of entrance of a nerve)

NOC-, NOX- (*nox*. cf. *nocere* “to harm”)

‘harm’

- in-NOC-ent;
- NOCI-FENS-or, efferent fibres which release chemical substances at their terminals, thus stimulating pain endings;
- NOCI-per-CEPT-ion, perception of pain by the central nervous system

NOCT- (*nox, noctis*)

‘night’

- NOCTI-phobia, morbid fear of night;
- per-NOCT-at-ion, staying up all night;
- NOCT-VAG-ant, going about in the night, night-wandering

OST- (*ostium*)

‘door’, ‘opening’

- OSTIUM, any mouthlike opening, such as the opening of the fallopian tubes;
- OSTI-ole, the opening of a conceptacle, perithecium, stoma, or another sac, or the inhalant aperture of a sponge

NOTE: don’t confuse with Greek root OST- ‘bone’ of List 1.

PAR-, PART- (*pario* → *partum*)

‘to give birth to’, ‘to produce’

- MULTI-PAR-ous, bearing more than one offspring at a time;
- BI-PAR-ous, having two young at a time;
- RAMI-PAR-ous, producing branches,
- OCTI-PARA, a woman who has been in labour eight times

PART- (*pars, partis*)

‘part’, ‘to divide’

- PARTI-CIP-ate;
- PART-ic-ul-ar;
- BI-PART-ite, having two parts;
- DIGITI-PART-ite, having leaves divided in a hand-like pattern

PAT- (*patior*)

‘to spread or lie open’

- PAT-ent, open, exposed;
- pre-PAT-ent period, the period in parasitic disease between the introduction of the organism and its demonstration in the body

PECTOR- (*pectus, pectoris*)

‘breast’, ‘breastbone’

- PECTOR-al, pertaining to the chest, in the chest region;
- MEDIO-PECTOR-al, applies to the middle part of the sternum;
- ex-PECTOR-at-ion, ejection of material from the mouth

PED- (*pes, pedis*)

‘foot’

- PED-al;
- im-PEDE;
- ex-PED-ient;
- PEDI-cel, any slender stalk, especially one that supports a fruiting or spore-bearing organ;
- SCUTI-PED, having the foot or part of the foot covered by scutella

PELL- (*pellis*)

‘skin’

- PELL-icle, a thin skin or film, such as a film on the surface of a liquid

NOTE: don’t confuse with PEL(L)- ‘push’ of List 10.

PEND-, PENS- (*pendo → pensus*)

‘to hang’, ‘to weigh’, ‘to pay’

- de-PEND;
- im-PEND;
- ex-PENS-ive;
- com-PENS-at-ion, a psychic phenomenon in which strong of guilt or inferiority prompt excessive defensive reactions

PET-, PETIT- (*peto → petitus*)

‘to seek’

- PET-it-ion;
- com-PET-it-ion;
- PET-ul-ant;
- RECTI-PET-al-ity, the tendency to rectilinear growth;
- ACRO-PET-al, ascending (applies to leaves, flowers or roots developing successively from an axis so that the youngest arise at the apex)

PIL- (*pilus*)

‘hair’

- PIL-ose, hairy, downy;
- PILI-FER-ous, bearing or producing hair;
- PILI-MIC-at-ion, the passing of urine containing hairlike filaments

PISC- (*piscis*)

‘fish’

- PISC-ine, of, relating to, having the characteristics of fish;
- PISCI-VOR-ous, fish-eating

PLUM- (*pluma*)

‘feather’

- PLUMI-GER-ous, feathered;
- PULVI-PLUME, a powder-down feather

PRED- (*praeda*)

‘prey’

- PRED-at-ism, the habit or practice of living by predation;
- PRED-acious, preying on other animals;
- PRED-ac-ity, quality or state of being predacious

PRESS- (*premo* → *pressus*)

‘to press’

- de-PRESS-ion,
- im-PRESS-ion,
- re-PRESS,
- op-PRESS-ion;
- de-PRESSO-MOT-or, any nerve which lowers muscular activity

PROPRI- (*proprius*)

‘one’s own’

- ap-PROPRI-ate;
- ex-PROPRI-ate;
- im-PROPRI-ety;
- PROPRIO-SPIN-al, pertaining wholly to the spinal cord (applies to fibres)

RACEM- (*racemus*)

‘cluster of grapes or berries’

- RACEM-ose, arranged in a cluster, or bearing flowers in clusters;
- RACEM-ic acid, named from its being found in the juice of grapes

RIM- (*rima*)

‘crack’, ‘chink’

- RIM-ate, having fissures;
- RIM-iform, in the shape of a narrow fissure;
- BI-RIM-ose, having two clefts or slits

ROD-, ROS- (*rodo* → *rosum*)

‘to gnaw’

- ROD-ent;
- cor-ROS-ive, a substance which destroys organic tissue by chemical means or by inflammation;
- e-ROS-ion, an eating, gnawing or wearing away

ROT- (*rota*)

‘wheel’

- ROT-ate, shaped like a wheel, rotiform;
- ROT-ul-iform, shaped like a small wheel;
- MUTA-ROT-at-ion, a change in optical rotation of solutions of certain sugars

SALI- (-SILI-), SALT- (-SULT-) (*salio*; *saltus*)

‘to leap’, ‘to jump’

- ex-ULT;
- re-SULT;
- con-SULT;
- in-SULT, trauma or other stress to tissues or organs;
- SALT-GRADE, moving by leaps as some insects

SEB- (*sebum*)

‘grease’, ‘tallow’

- SEBUM, the oily secretion of the SEB-aceous glands which lubricates and protects the hair and skin;
- SEBO-RRHEA, a disease of the sebaceous glands, characterized by an excessive secretion or disturbed quality of sebum

SEC-, SEG-, SECT- (*seco* → *sectus*)

‘to cut’

- in-SECT;
- re-SECT-ion, the operation of cutting out as the removal of a segment or section of an organ;
- SECT-or-ial, formed or adapted for cutting, as certain teeth

SED- (-SID-), SESS- (*sedo*; *sessus*)

‘to sit’, ‘to settle’

- re-SIDE;
- pre-SID-ent;
- SESS-ion;
- in-SESS-or-ial, adapted for perching;
- re-SID-ual, pertaining to that which cannot be evacuated or discharged (as residual air in the lungs, residual urine in the bladder)

SENS-, SENT- (*sentio* → *sensum*)

‘to feel’, ‘to perceive’

- SENT-ence;
- con-SENT;
- as-SENT;
- dis-SENT;
- SENS-ile, capable of affecting a sense;
- SENTI-ent, of cells that are sensitive and perceptive;
- SENS-illa, a small sense organ

SET- (*seta*)

‘bristle’

- SETA, any bristle-like structure, as the sporophore of liverworts and mosses;
- SETI-GER, a segment or process bearing bristles

SOL- (*sol*, *solis*)

‘sun’

- SOL-arium;
- in-SOL-at-ion, exposure to the sun’s rays;
- SOL-ASTER-idae, a family of starfishes, typically brightly coloured and having numerous arms

SOMN- (*somnus*)

‘sleep’

- SOMNI-FACI-ent, a medicine producing sleep, a hypnotic;
- SOMNI-FUG-ous, driving away sleep;
- hyper-SOMN-ia, excessive sleepiness

SORB-, SORPT- (*sorbeo*)

‘to suck in’

- ab-SORPT-ion, in physiology, the taking up of fluids or gases through osmosis and capillarity, or infiltration into the skin, or incorporation into the body through blood and lymph

SQUAM- (*squama*)

‘scale’

- SQUAMI-FER-ous, bearing scales;
- e-SQUAM-ate, having no scales;
- SQUAM-ul-ate, having minute scales

STRING-, STRICT- (*stringo* → *strictus*)

‘to draw tight’

- STRICT, stiffly upright, rigid, erect;
- a-STRING-ent, an agent that produces contraction of organic tissues or arrests haemorrhage, diarrhea, etc.

TEN- (-TIN-), TENT- (*teneo* → *tentus*)

‘to hold’

- TEN-ant;
- con-TIN-uous;
- de-TENT-ion;
- in-con-TIN-ent, not having the ability to control the natural evacuations, as the faeces or urine;
- sus-TIN-acu-lar, supporting (applies to connective tissue acting as a supporting framework for an organ

NOTE: this one can look like some of the forms of TEND- ‘stretch’ of List 10.

TER(R)- (*terra*)

‘earth’

- TERR-aneous, applies to land vegetation;
- TERRI-COL-ous, living in the earth

NOTE: not to be confused with TER- ‘3’ of List 10.

TRACT- (*traho* → *tractus*)

‘to draw’, ‘to drag’

- TRACT-or;
- at-TRACT-ive;
- dis-TRACT-ile, widely separate (usually applies to long-stalked anthers);
- CEPHALO-TRACT-or, obstetric forceps

TUBER- (*tuber*)

‘swelling’

- TUBER, a thickened, fleshy underground stem with surface buds;
- TUBER-iform, resembling or shaped like a tuber;
- TUBER-in, a simple protein of the globular type which occurs in potatoes

UTER- (*uterus*)

‘womb’

- UTER-ismus, uterine contraction of a spasmodic and painful character;
- UTERO-GEST-at-ion, the part of the gestation period passed in the uterus;
- UTRI-cle or UTRI-culus, an air bladder of aquatic plants, or the membranous sac of the ear labyrinth

VACU- (*vacuus*)

‘empty’

- VACUUM;
- VACU-ole, one of the spaces in cell protoplasm containing air, sap or partially digested food;
- VACU-ol-is-at-ion, the formation of vacuoles

VAS- (*vas*)

‘vessel’

- VASE;
- VAS-cul-ar, consisting of or containing vessels adapted for transmission or circulation of fluid;
- CARDIO-VAS-cul-ar, pertaining to the heart and blood vessels;
- VASO-di-LAT-ion, relaxing or enlarging the vessels

VEH-, VECT- (*veho* → *vectus*)

‘to carry’

- ad-VEH-ent, afferent, carrying to an organ;
- con-VECT-ion, a transmission or carrying, as of heat;
- VECT-or

VIT- (*vita*)

‘life’

- VIT-al, pertaining to or necessary for life;
- AQUA VITAE, spirit or eau-de-vie

VIV- (*vivus*)

‘living’

- sur-VIVE; VIV-id;
- VIV-acious;
- VIVI-dif-FUS-ion, passage of diffusible substances from the blood of a living animal;
- VIV-PAR-ous, bringing forth the young alive

VOR- (*voro*)

‘to eat’

- VOR-acious;
- HERBI-VOR-ous, living on vegetable food;
- FUNGI-VOR-ous, fungus-eating animals and plants;
- in-SECTI-VOR-ous, living on insects

Vocabulary List 9

Latin Verb-Forming Suffixes

-ate (-atus)

‘to make’, ‘to treat’, ‘to do something with’

- alleviate, obviate, illuminate

NOTE: This suffix often combines with the suffix -ion to form a noun (e.g. illumination = “the act of making/bringing in light”)

-fy (-ficere)

‘to make’, ‘to cause’

- terrify, liquify, pacify

NOTE: The adjective ending that corresponds to -fy is -fic, ‘making’, ‘causing’ (e.g. terrific, pacific)

-igate, -egate (-atus)

‘to make’, ‘to drive’

- mitigate, fumigate, navigate, variegated

-esce (-escere)

‘to begin’, ‘to be somewhat’

- effervescent, convalescent, arborescent

Latin Roots IV

AG-, ACT- (*ago* → *actus*)

‘to do’, ‘to drive’, ‘to act’

- ACT-ion;
- AG-ile;
- CUTI-re-ACT-ion, a local skin reaction following inoculation with or the application of extracts of pathogenic organisms

ALB- (*albus*)

‘white’

- ALBI-FACT-ion, the act or process of blanching or rendering white;
- ALBUM-in, a protein substance found in nearly every animal and some vegetable tissue;
- ALBUR-num, sapwood or splint wood (i.e., the soft, white substance between the inner bark and true wood)

ARC(U)- (*arcus*)

‘bow’, ‘arch’

- ARC-ade;
- ARCI-FER-ous, applies to the pectoral arch of toads;
- ARC-iform, shaped like an arch or a bow;
- ARCU-alia, small, cartilaginous pieces, dorsal and central, fused or free, on the vertebral column of fishes

CALCAR- (*calcar*)

‘spur’

- CALCAR-ine, a fissure extending to the hippocampal gyrus on the medial surface of the cerebral hemisphere;
- CALCAR-ate, having a spur or spur-like point

NOTE don’t confuse with the root CALC- ‘limestone’ and CALC- ‘heel’ of Lists 8 and 10.

CAUL- (*caulis*)

‘stem’, ‘stalk’

- CAULI-COL-ous, applies to fungi growing on plant stems;
- CAUL-ine, pertaining to a stem (applies to leaves growing on the upper portion of a stem);
- FILI-CAUL-ine, with a threadlike stem

CAV- (*cavus*)

‘hollow’

- CAVI-CORN, hollow-horned;
- inter-CAV-it-ary, within a CAV-ity

CER- (*cera*)

‘wax’

- CERI-FER-ous, wax-bearing, waxy;
- CERE-ous, waxy

CING-, CINCT- (*cingo* → *cinctus*)

‘to bind’, ‘to gird’

- pre-CINCT;
- suc-CINCT;
- CING-ulum, a girdle or the waist;
- sub-CING-ulum, the lower lip part of the cingulum of rotifers;
- CING-ul-ectomy, the surgical removal of the cingulate gyrus (in the brain)

CLIV- (*clivus*)

‘slope’

- pro-CLIV-ity;
- de-CLIVE, a lower or descending part;
- CLIVUS, a slope;
- post-CLIV-al, the fissure behind the clivus of the cerebellum

COCT- (*coquo* → *coctus*)

‘to cook’, ‘to boil’

- con-COCT-ion, preparation made by combining different crude ingredients;
- COCTO-STA-ble, able to withstand the temperature of boiling water without change

CUSP-, CUSPID- (*cuspis, cuspidis*)

‘point’

- CUSP, a pocket or fold in the wall of the heart or a major blood vessel that fills and distends if the blood flows backwards, so forming part of a valve; a cone-shaped prominence on the surface of a tooth; a sharp rigid point of a leaf; bicuspid, having two cusps or points; a tooth with two cusps, especially a human premolar tooth;

- bi-CUSP-id, having two cusps, as bicuspid teeth, or as the mitral valve of the heart

CUT-, CUSS- (*-cutio* → *-cussus*)

‘to shake’, ‘to strike’

- con-CUSS-ion, shock, the state of being shaken, a severe shaking or jarring of a part;
- per-CUSS-ion, the act of firmly tapping the surface of the body with a finger or a small hammer to elicit sounds or vibratory sensations of diagnostic value

NOTE: not to be confused with the homonymous CUT- ‘skin’ of List 8.

DOL- (*doleo*)

‘to feel pain’, ‘to cause pain’

- con-DOL-ence;
- in-DOL-ent, sluggish, usually applied to slowness in healing or growing, as an indolent ulcer, or causing little or no pain, as an indolent tumour

EBURN- (*ebur; eburnus*)

‘ivory’

- EBURN-eous, ivory white, white more or less tinged with yellow;
- EBURN-itis, increased hardness and density of the tooth enamel

FASCI- (*fascia*)

‘band’

- FASCIA, thin sheath of fibrous tissue enclosing a muscle or organ;
- FASCI-ated, showing abnormal fusion of parts or organs, resulting in a flattened ribbon-like structure;
- FASCI-ola, a narrow colour-band;
- FASC-itis, inflammation of a fascia

FENESTR- (*fenestra*)

‘window’, ‘opening’

- FENESTR-ate, having small perforations or transparent spots (applies to insect wings);
- CRANIO-FENESTR-ia, congenital bony defect involving the total thickness of the skull, lacuna skull

FERR- (*ferrum*)

‘iron’

- FERR-ic, relating to iron;
- FERR-ule, a ring or cap, typically a metal one, which strengthens the end of a handle, stick, or tube and prevents it from splitting or wearing;
- FERR-ous, containing or consisting of iron;
- FERRI-HAEMO-GLOB-in, haemoglobin in which the iron is normally in a ferrous state

NOTE: not to be confused with the similar FER- ‘to bear’ of List 6.

FIL- (*filum*)

‘thread’

- FILI-GER-ous, with threadlike outgrowths or flagella;
- FIL-ar-iasis, a diseased state due to the presence of nematode worms of the super family Filarioidea

FLAGELL- (*flagellum*)

‘whip’, ‘whip-like appendage’

- FLAGELL-ate;
- FLAGELL-um, a slender thread-like structure, especially a microscopic whip-like appendage which enables many protozoa, bacteria, spermatozoa, etc. to swim;
- FLAGELL-in, the structural protein of bacterial flagella

FLAV- (*flavus*)

‘yellow’

- FLAV-edo, yellowness of the skin;
- FLAV-in, one of a group of yellow pigments isolated from various plant and animal sources

FLOCC- (*floccus*)

‘tuft, as of wool’

- FLOCCUS, a tuft of woolly hairs on a plant;
- FLOCC-ose, covered with woollike tufts (applies to bacterial growths)

FOR- (*foro*)

‘to bore’, ‘to pierce’

- FOR-amen, the opening through the coats of an ovule, or any small perforation;
- FOR-amin-ule, a minute foramen;
- FOR-amini-FER-a, an order of protozoans with calcareous shells with minute openings for pseudopodia

FOV- (*fovea*)

‘pit’

- FOVEA, a small pit, fossa or depression, or a small hollow at leaf base;
- FOVE-ate, pitted;
- FOVE-ol-ate, having regular, small depressions

FUNG- (*fungus*)

‘mushroom’, ‘fungus’

- FUNGI-VOR-ous, fungus-eating animals and plants;
- FUNG-at-ion, the act of growing up rapidly, like a fungus (as certain pathologic growths);
- FUNG-os-ity, fungous excrescence, fungous quality

GLABR- (*glaber, glabris*)

‘hairless’, ‘smooth’

- GLABR-ous, free from hair or down, smooth (chiefly of the skin or a leaf);
- GLAB-ella, the smooth part of the forehead above and between the eyebrows

GLOMER- (*glomus, glomeris*)

‘ball of yarn’

- GLOMUS, a fold of the mesothelium containing a ball of blood vessels;
- con-GLOMER-ation, that which is made up of parts from various sources

GLUTIN- (*gluten, glutinis*)

‘glue’

- GLUTEN, a mixture of proteins found in the seeds of cereals, which confers the property of toughness to dough;
- GLUTIN-ous, viscid, gluelike

HAL-, HALIT- (*halo; halitus*)

‘to breathe’

- HALIT-us, a vapour, as that expired by the lungs;
- HALIT-osis, the state of having offensive breath

NOTE: not to be confused with Greek root HAL- ‘salt’ of List 5

HI-, HIAT- (*hio → hiatus*)

‘to stand open’

- HIAT-us, a space or opening;
- de-HI-sc-ence, the spontaneous opening of an organ or structure along certain lines in a definite direction;
- in-de-HI-sc-ent, not splitting at maturity (applies to certain fruits)

I-, IT- (*eo → itus*)

‘to go’

- in-IT-ial;
- ex-IT;
- ob-IT-uary;
- amb-IT-us, the outer edge or margin or the outline of an echinoid shell viewed from the apical pole;
- ab-I-ent, tending away from the source of stimulus (opp. ad-I-ent)

LABI-, LABR- (*labium or labrum*)

‘lip’

- LABIUM, lip, liplike structure;
- LABIO-GRESS-ion, location of the anterior teeth in front of their normal position

NOTE: careful not to confuse with similar LAB- ‘fall’ of List 7

LAMIN- (LAMELL-) (*lamina*)

‘thin plate’; ‘little plate’ (*lamella*), diminutive form.

- LAMIN-ate;
- LAMELLA, a plate or layer;
- LAMELLI-CORN, having antenna joints expanded into flattened plates;
- LAMIN-ectomy, surgical removal of one or more neural laminae of the vertebrae

LAT- (*latus*)

‘broad’, ‘wide’

- di-LAT-ion;
- LATI-SQUAM-ate, broad-scaled

NOTE: don’t confuse with below.

LAT- (*fero* → *latus*)

‘to bear’, ‘to carry’

- re-LATE;
- e-LAT-ed;
- trans-LATE;
- ab-LAT-ion, removal of a part by amputation, excision, etc.

NOTE: don’t confuse with above.

LEV- (*levis*)

‘light’ (in weight)

- LEV-ity;
- LEV-er;
- e-LEV-at-or, an instrument for lifting a part or for extracting the roots of teeth;
- al-LEVI-at-ion, the modification of symptoms, the lessening of pain

NOTE: don’t confuse with homonymous LEV- ‘left’ of List 8.

LIEN- (*lien*)

‘spleen’

- LIEN-al, pertaining to the spleen (applies to an artery, vein, or nerve plexus);
- GASTRO-LIEN-al, pertaining to the stomach and spleen

LIG- (*ligo*)

‘to bind’

- ob-LIG-at-ion;
- al-LIG-at-or;
- LIG-ament, a band of tough, flexible connective tissue;
- LIG-at-ure, a cord or thread for tying vessels or the act of tying or binding

LIGN- (*lignum*)

‘wood’

- LIGNE-ous, woody, of the nature of wood;
- LIGN-in, a complex substance which, associated with cellulose, causes the thickening of plant cell walls, and so forms wood

LIQU- (*liquo*)

‘to be liquid’

- LIQUE-FACT-ion, conversion of material into liquid form

LONG- (*longus*)

‘long’

- LONGI-tude;
- LONGI-CORN, having long antennae, former term for longhorn beetle;
- LONGI-MAN-ous, long-handed

LUMIN- (*lumen, luminis*)

‘light’

- LUMEN, the cavity of a tubular part of an organ, or the central cavity of a plant cell;
- SONO-LUMIN-esc-ence, the emission of light by various liquids when traversed by high-frequency sound or ultrasonic waves

MAN(U)- (*manus*)

‘hand’

- MANU-FACT-ure,
- MANU-SCRIPT;
- BI-MAN-ous, having two hands (applies to certain primates);
- MANU-DUCT-ion, operation performed by the hands in surgical and obstetric practice

MEAT- (*meo → meatus*)

‘to go’, ‘to pass’

- MEATUS, an opening or passage;
- MEAT-itis, inflammation of the wall of a meatus;
- SUPRA-MEAT-al, applies to triangle and spine over external acoustic meatus

MIT(T)-, MIS(S)- (*mitto → missus*)

‘to send’, ‘to let go’

- e-MISS-ary, any venous channel through the skull connecting the venous sinuses with the diploic veins and veins of the scalp;
- intro-MISS-ion, insertion, the act of putting in, the introduction of one body into another

NOTE: not to be confused with the Greek roots MIT- ‘thread’ or MIS- ‘hate’ of Lists 4 and 3.

MUC- (*mucus*)

‘mucus’

- MUCI-fic, mucus-secreting;
- MUCO-CUT-aneous, pertaining to skin and mucous membrane

NAS- (*nasus*)

‘nose’

- NAS-al;
- NAS-al-ize;
- NASO-GASTR-ic, reaching or supplying the stomach via the nose;
- NASO-PHARYNX, the upper part of the pharynx, connecting with the nasal cavity above the soft palate

NIGR- (*niger, nigeris*)

‘black’

- NIGR-esc-ent, nearly black, blackish

NOTE: This root was widely used to describe neutrally the colour black (as it did in Latin). But because the root in modern history has sinisterly been most used to form the base of an offensive ethnic slur, its pronunciation is now important to distinguish it. It is now common to pronounce this root like in Latin, with the ‘i’ = ‘eeee’ sound or turning the ‘i’ into an ‘eye’ sound.

NUC- (*nux, nucis*)

‘nut’

- NUC-leus;
- NUC-le-ase, an enzyme that cleaves the chains of nucleotides in nucleic acids into smaller units;
- NUC-ellus, the central part of an ovule, containing the embryo sac;
- NUC-le-olus, a small dense spherical structure in the nucleus of a cell during interphase.

NUTRI-, NUTRIT- (*nutria* → *nutritus*)

‘to nourish’

- NUTRIC-ism, a relationship of two animals with all the benefit to one partment;
- NUTRI-ent, that which affords nutrition

OS-, OR- (*os, oris*)

‘mouth’

- OR-al;
- OS-culum, a large aperture in a sponge through which water is expelled;
- OS-CUL-ate, to kiss;
- OS-CUL-ar, relating to kissing (or to an osculum)

NOTE: don’t confuse with OSS- below.

OSS- (*os, ossis*)

‘bone’

- OSS-icle, any small bone;
- DERMO-OSSI-FIC-at-ion, a bone formed in the skin

NOTE: don’t confuse with OS- above.

PALLI- (*pallium*)

‘mantle’, ‘covering’

- PALLI-um, (in zoology) the mantle of a mollusc or brachiopod, (in anatomy) the outer wall of the mammalian cerebrum, corresponding to the cerebral cortex;
- PALLI-ate, to make (a disease or its symptoms) less severe without removing the cause;
- PALLI-at-ive, relieving pain without dealing with the cause of the condition

PALP- (*palpo*)

‘to touch’, ‘to stroke’

- im-PALP-able, not capable of being felt, imperceptible to touch;
- PALP-it-at-ion, any heart action of which the patient is conscious
- PALPO-CIL, a stiff, sensory filament attached to sense cells of Hydromedusae

PLEX- (*plecto* → *plexus*)

‘to interweave’, ‘to braid’

- PLEXUS, a network of interlacing nerves or anastomosing blood vessels or lymphatics;
- PLEX-iform, resembling a plexus or network;
- PLEX-ODONT, having molar teeth with complicated crown patterns and multiple roots

NOTE: don’t confuse with Greek root PLEX- ‘strike’ of List 1

PRON- (*pronus*)

‘inclined’, ‘face-down’

- Prone, lying flat, especially face downwards
- PRON-ator, a muscle whose contraction produces or assists in the pronation of a limb or part of a limb.

PROXIM- (*proximus*)

‘near’, ‘nearest’; ‘nearest the body’

- PROXIM-ate, nearest, immediate (as proximate cause);
- PROXIM-al, in dentistry, surface of a tooth next to the adjacent tooth;
- PROXIMO-LABI-al, pertaining to a tooth’s proximal and labial surfaces

PUNG-, PUNCT- (*pungo* → *punctus*)

‘to prick’, ‘point’

- com-PUNCT-ion;
- PUNCT-uate;
- PUNCT-il-ious;
- PUNCT-iform, having the nature of qualities of a point, or seeming to be located at a point (of a sensation), or in bacteriology, very minute colonies;
- PUNG-ent, ending in a rigid and sharp point

RIG- (*rigeo*)

‘to be stiff’

- RIG-id, stiff or hard;
- RIG-esc-ent, becoming rigid;
- RIGID-itas, stiffness, rigidity

RUB(R)- (*ruber*)

‘red’

- BILI-RUBR-in, a reddish-yellow pigment of bile and blood;
- RUBIGIN-ose, of a brownish-red tint, rust-coloured;
- e-RUB-esc-ent, blushing red

SAC(C)- (*saccus*)

‘bag’, ‘sac’

- SACC-ate, dilated to form a sac;
- SACC-ule (SACC-ulus), a small sac, pouch, or cyst

SCRIB-, SCRIPT- (*scribe* → *scriptus*)

‘to write’

- de-SCRIBE;
- pre-SCRIBE;
- sub-SCRIBE;
- circum-SCRIPT, a marginal sphincter when sharply defined, as in sea anemones

SEP-, SEPT- (*septum*)

‘to separate’, ‘wall’

- SEPTUM, a partition, a dividing wall between two spaces or cavities;
- e-SEPT-ate, not supplied with septa;
- SEPT-ectomy, excision of part of the nasal septum

NOTE: don’t confuse with Greek root SEP- ‘rot’ of List 4 or the Latin SEPT- ‘7’ of List 10.

SINISTR- (*sinister*)

‘left’

- SINISTER;
- SINISTRO-TORS-ion, a twisting or turning toward the left;
- SINISTR-in, a levorotatory polysaccharide

SIN(U)- (*sinus*)

‘curve’, ‘hollow’, ‘cavity’

- in-SINU-ate, suggest or hint in an indirect and unpleasant way;
- SINUS, a cavity within a bone or other tissue, especially one in the bones of the face or skull connecting with the nasal cavities;
- SINU-ate, having a wavy or sinuous margin; with alternate rounded notches and lobes;
- SINU-ous, having many curves and turns;
- SINUS-oid, a small irregularly shaped blood vessel found in certain organs, especially the liver

SPIN- (*spina*)

‘thorn’, ‘spine’

- SPIN-ul-ate, covered with spines;
- SPIN-ul-at-ion, a defensive spiny covering, or the state of being spinulate

SPIR- (*spiro*)

‘to breathe’

- SPIRIT;
- con-SPIRE;
- a-SPIR-at-or, a negative pressure apparatus for withdrawing liquids from cavities;
- su-SPIR-at-ion, a sigh, the act of sighing;
- tran-SPIR-at-ion, exhalation of vapour through pores or stomata

NOTE: don't confuse with Greek root SPIR- ‘coil’ of List 5

STA-, STAT- (*sto* → *stare*, *status*)

‘to stand’

- circumstance;
- distant;
- extant;
- instant;
- status;
- substance;
- STA-ble, not liable to undergo chemical decomposition, radioactive decay, or other physical change; STA-bile, stationary;
- DI-ST-al, situated away from the centre of the body or from the point of attachment

NOTE: Very similar to the Greek root STA- “stand” of List 2.

STIP-, STIPIT- (*stipes*, *stipitis*)

‘stalk’

- STIPIT-ate, stalked;
- STIP-ule, one of two membranes or foliaceous processes developed at the base of a leaf petiole;
- BI-STIP-ul-ate, provided with two stipules

STRAT- (*stratum*)

‘layer’

- BI-STRAT-ose, with cells arranged in two layers;
- STRAT-iform, applies to fibrocartilage coating osseous grooves

STRU-, STRUCT- (*struo* → *structus*)

‘to construct’, ‘to build’

- STRUCT-ure;
- de-STRUCT-ion;
- ob-STRU-ent, obstructing, tending to obstruct

TERMIN- (*terminus*)

‘end’, ‘boundary’

- ab-TERMIN-al, going from the end inward;
- at-TERMIN-al, toward the terminal;
- co-TERMIN-ous, having the same or coincident boundaries

TUM- (*tumeo*)

‘to swell’

- TUM-esc-ent, swollen, enlarged;
- de-TUM-esc-ence, subsidence of a swelling (esp. of erecto-sexual organs following orgasm)

UMBR- (*umbra*)

‘shade’, ‘shadow’

- UMBR-age;
- ad-UMBR-ate;
- ex-UMBR-al, pertaining to the rounded upper surface of a jellyfish;
- ob-UMBR-ate, with some structure overhanging the parts so as partially to conceal them;
- UMBR-aculum, any umbrellalike structure

UNGU- (*unguis*)

‘nail’ (of finger or toe)

- UNGUI-FER-ate, having nails, claws or hooklike processes;
- UNGUI-cul-ata, Mammalia with nails or claws as distinguished from hoofed mammals and cetaceans

VEL- (*velum*)

‘veil’, ‘covering’

- VELUM, a membrane or structure similar to a veil;
- VELI-GER, second stage in larval life of certain molluscs when the head bears a velum

NOTE: not to be confused with VELL- ‘tear’ of List 10.

VISCER- (*viscus*)

‘entrails’

- e-VISCER-at-ion, removal of internal organs;
- VISCERO-SENS-ory, relating to sensation in the viscera

VITR- (*vitrum*)

‘glass’

- VITR-eous, like glass in appearance;

VARI- (*varius*)

‘varied’, ‘changing’, ‘spotting’

- VARI-ous;
- VARI-ety;
- VARI-egate-d, marked with different colours;
- VARI-CELLA, chickenpox

VENTR- (*venter*)

‘belly’

- VENTRI-LOQU-ism; V
- ENTR-icle, a cavity or chamber, as of the heart or brain;
- BI-VENTR-al, applies to muscles of the biventer type (= digastric, each of a pair of muscles which run under the jaw and act to open it, from GAST- ‘belly’ because the muscle has two fleshy parts or ‘bellies’ at an angle, connected by a tendon)
- VITR-esc-ent, capable of or susceptible to being turned into glass;
- VITR-eous HUM-our, the transparent jelly-like tissue filling the eyeball behind the lens (cf. aqueous humour);
- VITR-ectomy, the surgical operation of removing the vitreous humour from the eyeball

VOLV-, VOLUT- (*volvo* → *volutus*)

‘to roll’, ‘to turn’

- in-VOLVE;
- re-VOLUT-ion;
- VOLUTE;
- ob-VOLUTE, bent downward and inward (applies to wings, elytra of insects);
- VOLV-ulus, a twisting of the bowel upon itself occluding the lumen.

Vocabulary List 10

Latin Numeral Roots

SEMI- (*semis*)

‘half’, ‘partly’

- SEMI-LUN-ate, half-moon-shaped;
- SEMI-CAUD-ate, with a rudimentary tail

UN- (*unus*)

‘one’

- UN-ique;
- UN-iform;
- UN-ANIM-ity;
- UNI-FOLI-ate, with one leaf;
- UNI-PAR-ous, producing one offspring at a birth;
- UNI-STRATE, having only one layer

PRIM- (*primus*)

‘first’

- PRIM-ary;
- PRIM-ates, the highest order of the vertebrate class Mammalia, including man, apes, monkeys and lemurs;
- PRIMI-PAR-ous, pertaining to a woman bearing or giving birth to her first child

SESQUI- (*sesqui*)

‘one-and-a-half times’

- SESQUI-CENT-ENNI-ial;
- SEQUI-CHLOR-ide, a compound of chlorine and another element containing three parts of chlorine and two of the other element;

- SESQUI-OX-ide

DU- (*duo*)

‘two’

- DU-et; DU-al;
- DU-PLIC-ate;
- DU-PLICI-DENT, with two pairs of incisors in the upper jaw;

BI-, BIN- (*bi-*)

‘two’, ‘twice’

- BI-NATE, growing in pairs;
- BI-FID, forked, opening with a median cleft;
- BI-STRAT-ose, with cells arranged in two layers

SECOND-, SECUND- (*secundus*)

‘second’, ‘following’

- SECOND-ary;
- SECUNDI-GRAV-ida, a woman pregnant the second time

TRI- (*tres, tria*)

‘three’

- TRI-DENT;
- TRI-VI-al;
- TRI-COST-ate, with three ribs;
- TRI-FID, cleft to form three lobes

TERTI- (*tertius*)

‘third’

- TERTI-ary, third, pertaining to third stage of disease;
- TERT-ian, recurring every other day, as a tertian fever

TERN- (*terni*)

‘three each’

- TERN-ary, consisting of or based on three, or pertaining to a crystal system in which three-sided forms occur, or an alloy with three elements;

TER- (*ter*)

‘three times’

- TER-VAL-ent, having a valence of three, triple

NOTE: not to be confused with TER(R)- ‘earth’ of List 8.

QUADR(U)- (*quadrus*)

‘four’

- QUADRU-PLE; QUADRI-JUG-ate, applies to pinnate leaf having four pairs of leaflets;
- QUADRU-PED, a four-footed animal

QUART- (*quartus*)

‘fourth’

- QUART-an, recurring every three days (or four, counting inclusively), as on first, fourth and seventh day;

QUATERN- (*quater*)

‘four each’

- QUATERN-ate, in sets of four (applies to leaves growing in fours from one point

QUINQUE- (*quinque*)

‘five’

- QUINQUE-PART-ite, divided into five parts

QUINT- (*quintus*)

‘fifth’

- QUIN-ary, applies to flower symmetry in which there are five parts to a whorl;

QUIN- (*quin*)

‘five each’

- QUINTU-PL-et, one of five children born at one birth

SEX- (*sex*)

‘six’

- SEX-OSTI-atae, group of spiders marked by six cardiac ostia

SEXT- (*sextus*)

‘sixth’

- SEXT-ant, a maximum angle of sixty degrees;

SEPT-, SEPTEM- (*septem*)

‘seven’

- SEPTEM-ber;
- SEPTEM-PART-ite, divided into seven parts;

NOTE: don’t confuse with Greek root SEP- ‘rot’ of List 4 or the Latin SEPT- ‘separate’ of List 9.

SEPTIM- (*septimus*)

‘seventh’

- SEPTIM-al, based on the number seven

OCT- (*octo*)

‘eight’

- OCTO-RADI-ate, having eight rays or arms;
- OCT-ane, the eighth member of the paraffin or marsh gas series

OCTAV- (*octavus*)

‘eighth’

- OCTAV-e

NOVEM- (*novem*)

‘nine’

- NOVEM-ber;

NON- (*nonus*)

‘ninth’

- NON-illion, ten to the thirtieth power;
- NON-an, having an exacerbation every ninth day

DECEM- (*decem*)

‘ten’;

- DECEM-FID, cleft into ten parts

DEC-, DECIM- (*decimus*)

‘tenth’

- DECIM-ate;
- DECI-LITRE, one-tenth of a litre;

CENT- (*centum*)

‘hundred’, ‘hundredth’

- CEN-ENN-ial;
- CENT-uri-on;
- CENTI-PEDE, elongated segmented arthropods with many legs;
- CENTI-metre, one-hundredth of a metre

NOTE: not to be confused with the similar Greek root CENTE- ‘puncture’ of List 3

MIL(L)- (*mille*)

‘thousand’, ‘thousandth’

- MILL-ENN-ium;
- MILLI-PEDE, myriopods constituting the the class Diplopoda having numerous segments and legs;
- MILLI-metre, one-thousandth of a metre

Latin Roots V

ALVEOL- (*alveolus*)

‘cavity’, ‘hollow’

- ALVEOL-ar, relating to an alveolus;
- ALVEOL-us, a small cavity, pit, or hollow, in particular: any of the many tiny air sacs of the lungs which allow for rapid gaseous exchange; the bony socket for the root of a tooth; an acinus (sac-like cavity) in a gland;
- ALVEOL-ation, the formation of alveoli

ATRI- (*atrium*)

‘entrance hall’, ‘room’

- ATRI-um, each of the two upper cavities of the heart from which blood is passed to the ventricles;
- ATRIO-VENTR-icular, relating to the atrial and ventricular chambers of the heart, or the connection or coordination between them

AX- (*axis*)

‘axis’

- AX-ial, relating to or forming an axis;
- AB-AX-ial, facing away from the stem of a plant (in particular denoting the lower surface of a leaf);
- AD-AX-ial, facing towards the stem of a plant (in particular denoting the upper surface of a leaf);
- AXO-POD-ium, a pseudopodium with axial filament

BARB- (*barba*)

‘beard’

- barber;
- BARB-ule, a minute filament projecting from the barb of a feather;
- BARB-ate, bearded;
- BARBI-cel, a small process on a feather barbule

NOTE: this is not the root for “barbarian” which comes from Greek and is unrelated to the ‘beard’ meaning. Instead, “barbarian” is from the Greek βάρβαρος, which means “those who speak gibberish” (“bar bar bar” is Greek for our “blah blah blah”).”

BIL- (*bilis*)

‘bile’

- BILI-ous, affected by or associated with nausea or vomiting;
- BILI-RUB-in, an orange-yellow pigment formed in the liver by the breakdown of haemoglobin and excreted in bile;
- BILI-VERD-in, a green pigment excreted in bile (the oxidized derivative of bilirubin);
- BILI-ary, relating to bile or the bile duct.

BRAC(T)E- (*bractea*)

‘thin plate’

- BRAC(T), a modified leaf or scale, typically small, with a flower or flower cluster in its axil;
- BRAC(T)E-ate, having or bearing bracts;
- BRAC(T)E-ole, a small bract, esp. one on a floral stem

BURS- (*bursa*)

‘bag’, ‘pouch’

- bursary; bursar; disburse; reimburse;
- BURSA, a fluid-filled sac or sac-like cavity, especially one countering friction at a joint;
- BURS-itis, inflammation of a bursa, typically one in a shoulder joint;
- BURS-icle, a pouch-like receptacle

CALC-, CALCANE- (*calx, calcis; calcaneus*)

‘heel’

- CALC-aneus (pl. calcanei), the large bone forming the heel;
- CALC-aneal, pertaining to the heel bone;
- CALC-aneo-CAVUS, a type of talipes (a deformity of the foot)

NOTE: Not to be confused with CALC- ‘limestone’ or CALCAR- ‘spur.’ This root is related to CALCAR-, as the ‘heel’ is used to ‘spur’ on a horse.

CAN-, CAND- (*canus; candidus*)

‘white’, ‘grey’; ‘to be glowing white’

- candid;
- candidate;
- candour;
- in-CAND-esc-ent, emitting light as a result of being heated;
- CAN-ities, greyiness or whiteness of the hair

NOTE: Not to be confused with the homonymous CAN- ‘dog’ of List 7.

CERVIC- (*cervix, cervicis*)

‘neck’

- CERVIC-al, relating to the narrow neck-like passage forming the lower end of the womb (or simply relating to the neck);

- CERVIC-itis, inflammation of the neck of the womb;
- CERVICO-BRACHI-ALG-ia, condition in which pain extends from the cervical region to arms or fingers

CLAV- (*clava*)

‘club’

- CLAV-ate or CLAV-iform, club-shaped; thicker at the apex than the base;
- ob-CLAV-ate, club-shaped and attached at the thicker end

NOTE: not to be confused with the homonymous CLAV- ‘key’

CLAV- (*clavis*)

‘key’, ‘bolt’, ‘collarbone’

- enclave;
- exclave;
- clavichord;
- CLAV-icle, the collarbone;
- sub-CLAV-ian, under the clavicle;
- CLAVIC-ular, pertaining to the clavicle

NOTE: not to be confused with the homonymous CLAV- ‘club’

CLIN- (KLIN-) (*clinatus*)

‘to slope’, ‘to lean’

- incline;
- decline;
- CLINO-CEPHA-ly, congenital flatness or concavity of the vertex of the head;
- syn-CLINE, a trough or fold of stratified rock in which the strata slope upwards from the axis

NOTE: The verbal meaning of this root only exists in compound forms in Latin (*inclinere, declinare*). It is taken from the Greek KLIN- (κλινῶ), but the ‘K’ is not used often today.

CORP-, CORPUS-, CORPOR- (*corpus, corporis*)

‘body’

- CORPOR-al;
- in-CORPOR-al;
- CORPS;
- in-CORPOR-ate;
- CORPUS-cle, a minute body or cell in an organism, especially a red or white cell in the blood of vertebrates

COX- (*coxa*)

‘hip’, ‘hip joint’

- COXA, (in anatomy) the hip bone or hip joint; (in entomology) the first or basal segment of the leg of an insect);
- COX-ALG-ia, pain in the hip joint;
- EPI-COX-ite, a small process at the end of the toothed part of the coxa in insects

CREN- (*crena*)

‘notch’

- CREN-ate, having a round-toothed or scalloped edge (especially of a leaf or shell);
- CREN-ul-ate, having a finely scalloped or notched outline or edge (especially of a leaf, shell, or shoreline)

EGO- (*ego*)

‘I’ (first-person pronoun)

- egotism; egotistical;
- ALTER-EGO-ism, an altruistic feeling for only those who are in the same situation as oneself;
- EGO-mania, obsessive egotism or self-centredness;

- super-EGO, the part of a person’s mind that acts as a self-critical conscience, reflecting social standards learned from parents and teachers

FACI-, (-FICI-) (facies)

‘face’, ‘surface’

- BI-FACI-al, applies to leaves with distinct upper and lower surfaces;
- CORONO-FACI-al, relating to the crown of the head and the face;
- inter-FACE, a surface which forms the boundary between two faces or systems;
- super-FICIES, outer surface

FAV- (*favus*)

‘honeycomb’

- FAV-ella, a conceptacle of certain red algae;
- FAV-eol-ate, honeycombed or alveolate;
- FAVUS, a distinctive type of tineal capitis characterized by the formation of honeycomb-like mats

FIBUL- (*fibula*)

‘clasp’, ‘brooch’ ‘outer bone of the leg’

- FIBULA (pl. fibulae), the outer and usually smaller of the two bones between the knee and the ankle;
- in-FIBUL-ation, the controversial practice of excising the clitoris and labia of a girl or woman and stitching together the edges of the vulva to prevent sexual intercourse;
- para-FIBUL-ar, pertaining to an accessory element outside the fibula

FREN- (*frenum*)

‘rein’, ‘bridle’

- FREN-ulum or FREN-um, (in anatomy) a small fold or ridge of tissue which supports or checks the motion of the part to which it is attached, in particular a fold of skin beneath the tongue, or between the lip and the gum; (in entomology, applying to some moths and butterflies) a bristle or row of bristles on the edge of the hindwing which keeps it in contact with the forewing;
- FREN-ate, having a frenulum

NOTE: ‘frenzy’, ‘frenetic’ are from Greek PHREN-, not this Latin root.

FRONT- (*frons, frontis*)

‘forehead’, ‘front’

- FRONS (pl. frontes), the forehead or equivalent part of an animal, especially the middle part of an insect’s face between the eyes and above the clypeus;
- FRONT-al, relating to the forehead or front part of the skull;
- FRONT-al BONE, the bone which forms the front part of the skull and the upper part of the eye sockets;
- FRONT-ad, toward the frontal aspect;
- FRONTO-NAS-al, pertaining to the frontal sinus and the nose

FRUCTIC- (*frutex, fruticis*)

‘shrub’

- FRUTEX, a shrub;
- FRUTIC-ose, (of a lichen) having upright or pendulous branches;
- FRUT-esc-ent, shrublike

NOTE: not to be confused with FRUG-/FRUCT- ‘fruit’

FRUG-, FRUCT- (*frux, frugis; fructus*)

‘fruit’

- FRUCTI-FIC-at-ion, fruit formation;
- FRUCT-ose, fruit sugar;
- FRUCT-esc-ence, the period of maturing of fruits

FURC- (*furca*)

‘fork’

- FURC-ate;
- TRI-FURC-ate, to divide into three branches or forks; furca (pl. furcae, an ingrowth of the thorax of many insects;
- FURC-ula, the wishbone of a bird.

FUS- (*fusus*)

‘spindle’

- FUSE-LAGE;
- FUS-illi, spindle-shaped pasta;
- FUS-arium, a mould of a large genus which includes a number that cause plant diseases, especially wilting;
- FUS-ee, a conical pulley or wheel, especially in a watch or clock

NOTE: Not to be confused with the other Latin root, FUND-, FUS- (pour, melt), as in ‘fusion’, ‘fuse’.

FUSC- (*fuscus*)

‘dark’, ‘brown’, ‘tawny’

- ob-FUSC-ate, make obscure, unclear, or unintelligible;
- FUSC-ous, dark and sombre in colour;
- FUSC-in, a brown pigment in the retinal epithelium

GEMIN- (GEMELL-) (*geminus*)

‘twin’, ‘paired’; the second root is the diminutive form (*gemellus*)

- GEMIN-ate, growing in pairs, paired;
- BI-GEMIN-ate, doubly paired, twin-forked;
- BI-GEMIN-y, the condition of occurring in pairs, or in cardiology, a premature beat coupled with each normal heartbeat

GEMM- (*gemma*)

‘bud’

- GEM;
- GEMMA, a small cellular body or bud that can separate to form a new organism;
- GEMM-ation, asexual reproduction by the production of gemmae; budding;
- GEMM-ule, a tough-coated dormant cluster of embryonic cells produced by a freshwater sponge for development in more favourable conditions

GEN-, GENIT- (*gigno* → *genui, genitus*)

‘to produce’, ‘to beget’

- pro-GENIT-or; con-GENI-al;
- con-GEN-er, a person, animal, plant or thing allied by origin, nature or function to another;
- GENIT-al;

NOTE: not to be confused with the Greek root GEN- ‘be produced’ of List 1 and GEN(U)- ‘knee’ below.

GENER- (*genus, generis*)

‘race’, ‘kind’

- GENER-ic
- GENER-ation

GEN(U)- (*genu*)

‘knee’

- GENU-ine (with reference to the Roman custom of a father acknowledging paternity of a newborn child by placing it on his knee);
- GENU-FLECT;
- GENU, the knee; (in Anatomy and Biology) a part of certain structures resembling a knee, in particular a bend in the corpus callosum of mammals;
- GENI-cul-ate, bent at a sharp angle

NOTE: see note on GEN- above.

GERM-, GERMIN- (*germen, germinis*)

‘sprout’, ‘bud’, ‘germ’

- GERM; GERM-ane;
- GERMIN-ate;
- GERM-icide, an agent that kills germs;
- GERMI-DUCT, the obiduct of a trematode (a parasitic flatworm)

NOTE: this is not the root for the country Germany, which comes from the Latin *Germania*, which probably is borrowed from Celtic. It is not, funnily enough, a Germanic word.

GINGIV- (*gingiva*)

‘the gums’

- GINGIVA, the gums;
- LABIO-GINGIV-al, pertaining to the lips and gums
- GINGIV-itis

INCUS-, INCUD- (*incus, incudis*)

‘anvil’

- INCUS, the middle arc of the chain of ossicles in the ear, so named from its resemblance to an anvil;
- INCUD-ectomy, surgical removal of the incus

INGUIN- (*inguen, inguinis*)

‘groin’

- INGUIN-al, of the groin;
- ex-INGUIN-al, occurring outside the groin;
- INGUINO-DYN-ia, pain in the groin

ILE- (*ileum*)

‘ileum’ (part of the small intestine)

- ILEUM, the third portion of the small intestine, between the jejunum and the caecum;
- ILE-ac, pertaining to the ileum;
- ILEO-COL-ic, pertaining to the ileum and the colon

NOTE: careful not to confuse this one with the suffixes -il and -ile.

ILI- (*ilium*)

‘flank, hip’

- ILIO-CAUD-al, connecting the ilium and the tail (applies to the muscle);
- SACRO-ILI-ac, pertaining to the ilium and sacrum

LAN- (*lana*)

‘wool’

- LAN-OL-in, a fatty substance found naturally on sheep’s wool;
- LAN-UGO, fine, soft hair, especially that which covers the body and limbs of a human fetus;
- LAN-UG-inous, covered with down

LENS-, LENT- (*lens, lentis*)

‘lentil’, ‘lens’

- Lens
- LENS-oid, having the shape of a lentil/lens
- LENT-ic-el, one of many raised pores in the stem of a woody plant that allows gas exchange between the atmosphere and the internal tissues; lenticular, shaped like a lentil, especially by being biconvex; relating to the lens of the eye;
- LENTI-GER-ous, furnished with a lens

LOB- (*lobus*)

‘lobe’

- LOBO-tomy, a surgical operation involving incision into the prefrontal lobe of the brain, formerly used to treat mental illness;
- LOB-ule, a small lobe;
- LOB-ular, pertaining to a lobule

LUMB- (*lumbus*)

‘loin’

- LUMB-ar, relating to the lower part of the back;
- LUMB-ago, pain in the muscles and joints of the lower back

LUTE- (*luteus*)

‘yellow’, ‘corpus luteum’

- CORPUS LUTEUM, the yellow endocrine body formed in the ovary at the site of a ruptured Graafian follicle;
- LUTE-al, pertaining to the corpus luteum;
- LUTE-in, a yellow chemical isolated from egg yolk

MAL(E)- (*malus*)

‘bad’

- MALE-FACT-or; M
- ALE-VOL-ent;
- MAL-FEAS-ance;
- MALE-DICT-ion;
- MAL-IGN;
- MAL-IGN-ant;
- MAL-PRACT-ice;
- MAL-ING-er, to pretend to be ill in order to escape duty or work;
- MAL-OCCLUS-ion, imperfect positioning of the teeth when the jaws are closed

NOTE: not to be consumed with MALLE- ‘hammer’ below or MAL- ‘cheek’ of List 7.

MALLE- (*malleus*)

‘hammer’

- MALLEUS, one of the ossicles of the inner ear having the shape of a hammer;
- MALLE-at-ion, a spasmodic action of the hands, consisting of continuously striking any nearby object

NOTE: not to be consumed with MAL(E)- ‘bad’ or MAL- ‘cheek’ of List 7.

NAR- (*naris*)

‘nostril’

- NARES, the nostrils;
- NARI-CORN, the horny part of the nostrils in Turbinares;
- NARI-form, shaped like nostrils

NOD- (*nodus*)

‘knot’

- NODE, the knob or joint of a stem at which the leaves arise, or an aggregation of specialized cardiac cells, or any small rounded organ, knob or protuberance

NUD- (*nudus*)

‘naked’

- NUDI-BRANCHI-ate, having gills not covered by a protective shell or membrane;
- NUDI-CAUD-ate, having a tail not covered by hair or fur

OLE- (*oleum*)

‘oil’

- OLE-in, a fat which is liquid at ordinary temperatures, found in animal and vegetable tissues;
- OLEI-FER-ous, producing oil

ORB-, ORBIT- (*orbita*)

‘circle’, ‘cavity of the eye’

- ORB; ORB-it;
- ORB-icul-ate, nearly circular in outline (applies to leaves);
- ORBITO-MAL-ar, pertaining to orbit and malar bones

PALPEBR- (*palpebra*)

‘eyelid’

- PALPEBRA, either of the two movable folds that protect the eyeball;
- PALPEBR-ate, furnished with eyelids, or to wink

PAPILL- (*papilla*)

‘nipple’

- PAPILLA, a small rounded protuberance on a part or organ of the body;
- PAPILL-oma (pl. papillomas or papillomata), a small wart-like growth on the skin or on a mucous membrane, derived from the epidermis and usually benign

PAR- (*par*)

‘equal’

- PAR-ity, the state or condition of being equal;
- PARI-VINC-ular, applies to the bivalve hinge ligament attached to nymphae;
- PARI-PINN-ate, pinnate without a terminal leaflet;
- dis-PAR-ate, not situated alike

PECTIN- (*pecto* → *pectitus*; *pecten*)

‘comb’

- PECTEN (pl. pectens or pectines), any of a number of comb-like structures occurring in animal bodies;
- PECTIN-ella, a comb-like membranella of some infusoria

PEL(L)-, PULS- (*pello* → *pulsus*)

‘to push’, ‘to drive’, ‘to beat’

- re-PEL;
- ex-PULS-ion;
- PULS-at-ile, pulsating, throbbing;
- PULS-ellum, a flagellum situated at the posterior end of the protozoan body

NOTE: don’t confuse with PELL- ‘skin’ of List 8.

PILE- (*pileus*)

‘felt cap’

- PILEUS, (in botany) the cap of a mushroom or toadstool; (in anatomy) one of the cerebellar hemispheres; the membrane which sometimes covers a child’s head at birth;
- PILE-ated, crested (e.g. pileated woodpecker)

PINN-, PENN- (*pinna*; *penna*)

‘feather’, ‘wing’, ‘fin’

- pen;
- pinnacle;
- PINNA (in anatomy and zoology) the external part of the ear in humans and other mammals; the auricle; (in botany) a primary division of a pinnate leaf, especially of a fern; (in zoology) any of a number of animal structures resembling fins or wings;
- BI-PENN-iform, feather-shaped, with sides of a vein of equal size;
- PINN-ule, a secondary division of a pinnate leaf, especially of a fern; (in zoology) a part or organ like a small wing or fin, especially a side branch on the arm of a crinoid

PLUR- (*plus*, *plures*)

‘more’, ‘many’

- PLUR-al-ity;
- PLURI-VOR-ous, living upon several hosts, as fungus;
- PLURI-LOC-ul-ar, having more than one compartment or locus

PULMO(N)- (*pulmo*, *pulmonis*)

‘lung’

- PULMON-ary or PULMON-ic, relating to the lungs;
- GASTO-PULMON-ary, pertaining to the stomach and the lungs

RAD-, RAS-, RAZ- (*rado* → *rasus*)

‘to scrape’

- RAZE;
- RAZ-or;
- e-RAS-er;
- RAD-ula, (in a mollusc) a rasp-like structure of tiny teeth used for scraping food particles off a surface and drawing them into the mouth;
- RAST-er, a rectangular pattern of parallel scanning lines followed by the electron beam on a television screen or computer monitor

SCAND- (-SCEND-), SCANS- (*scando* → *scansus*)

‘to climb’

- a-SCEND;
- de-SCEND;
- SCANS-or-ius, the small, anterior gluteal muscle;
- SCANS-ores an order of birds having two toes before and two behind, such as parrots

SCOP- (*scopa*)

‘broom’, ‘brush’

- SCOP-ate, having a tuft of hair like a brush;
- SCOP-arius, a species of shrub commonly called broom-tops

NOTE: don’t confuse with Greek root SCOP- ‘view’ of List 2

SOLV-, SOLUT- (*solvo* → *solutus*)

‘to loosen’, ‘to dissolve’

- SOLUTE, the dissolved substance in a SOLUT-ion;
- ab-SOL-ute, free from admixture

SPIC- (*spica*)

‘point’, ‘spike’

- SPIC-ule or SPIC-ula, a small, spike-shaped bone; a needle-like body;
- SPIC-ate, spiked;
- SPIC-ulum, the dart of a snail

STRI- (*stria*)

‘furrow’, ‘groove’

- STRIA, a streak or a line, a narrow, band-like structure;
- STRI-at-ure, striation, state of being striated, or the arrangement of striae

TEMPOR- (*tempus, tempora pl.*)

‘the temples’

- TEMPOR-al, (in anatomy) of or situated in the temples of the head;
- infra-TEMPOR-al, below the temporal fossa;
- PARIETO-TEMPOR-al, pertaining to the parietal and temporal bones or lobes;
- TEMPOR-al BONE, either of a pair of bones which form part of the side of the skull on each side and enclose the middle and inner ear;
- TEMPOR-al-is, a fan-shaped muscle running from the side of the skull to the back of the lower jaw involved in closing the mouth and chewing

NOTE: this is not to be confused with the common Latin Root TEMPOR- meaning time. They are homonyms in Latin, but mean different things.

TEND-, TENS-, TENT- (*tendo* → *tentum/tensum*)

‘to stretch’

- TENS-ion, the act of the stretching, the state of being stretched or strained;
- dis-TENS-ion, a state of dilation;
- TENS-or, a muscle that serves to make a part tense

NOTE: this one can look like some of the forms of TEN- ‘hold’ of List 8

TENDIN- (*tendo, tendonis*)
‘tendon’

- TENDIN-it is

NOTE: the root is based on the medieval Latin word above, taken from the Greek τένων.

UNC-, UNCIN- (*uncus; uncinus*)

‘hook’

- ad-UNC-ate, crooked; bent in the form of a hook;
- UNCI-form, shaped like a hook or barb;
- UNCI-FER-ous, bearing hooks or hook-like processes;
- UNCIN-ula, a genus of mildew with hooked appendages

VAGIN- (*vagina*)

‘sheath’

- VAGINA, any sheath-like structure, especially a sheath formed round a stem by the base of a leaf;
- Vagina, specifically the female reproductive tract which leads from the vulva to the uterus

NOTE: the modern use of vagina for the external female reproductive organs is taken directly from Latin. Originally, it was a metaphoric euphemism, equating the female reproductive organs to a sheath for a male penis, or “sword.”

- e-VAGIN-ate, (with reference to a tubular or pouch-shaped organ or structure) to turn or be turned inside out

VELL-, VULS- (*vello, vulsus*)

‘to tear’

- a-VULS-ion, the forcible tearing or wrenching away of a part, as a polyp or a limb; r
- e-VULS-ion, the drawing, by irritation, of blood from a distant part of the body

NOTE: not to be confused with VEL- ‘veil’ of List 9.

VITELL- (*vitellus*)

‘yolk of an egg’

- VITELLUS, the yolk of an egg or ovum;
- VITELL-in, the chief protein constituent of egg yolk;
- VITELL-ine, relating to the yolk (or yolk sac) of an egg or embryo, or to yolk-producing organs;
- VITELL-ine MEMBRANE, a transparent membrane surrounding and secreted by the fertilized ovum, preventing the entry of further spermatozoa;
- VITELLO-GEN-in, a protein present in the blood, from which the substance of egg yolk is derived