

BIOLOGY MAGNETS CATALOG

Biology Magnets are educational products for use on magnetic white boards or chalkboards. These magnets are for teaching and modeling biological processes such as photosynthesis, respiration, cell division, cell signaling, transcription, translation, genetic engineering, and food webs.

Also available are modules for learning biological structures such as organic molecules, parts of a cell, and parts of the human anatomy. Biology Magnets have a relatively low price point as compared to traditional classroom models, and provide greater flexibility in teaching.

Order online at biologymagnets.com or through purchase order email or send your order to the company address.

[Biology Magnets](http://biologymagnets.com)

PO Box 20388
St. Simons Island, GA 31522

biologymagnets@gmail.com

biologymagnets.com

Module 0 - Parts of the Atom

This module contains tools for teacher and student instruction of parts of the atom. The teacher set is larger and is designed to be used at the board in the front of a classroom, while the student set is smaller and is designed for individuals, small groups, and tutoring using a smaller whiteboard. Module 0 includes 63 magnets and three lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 150 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

- Item 0M – Module 0 Teacher Set - \$25.00
- Item 0MST - Module 0 Student Set - \$25.00

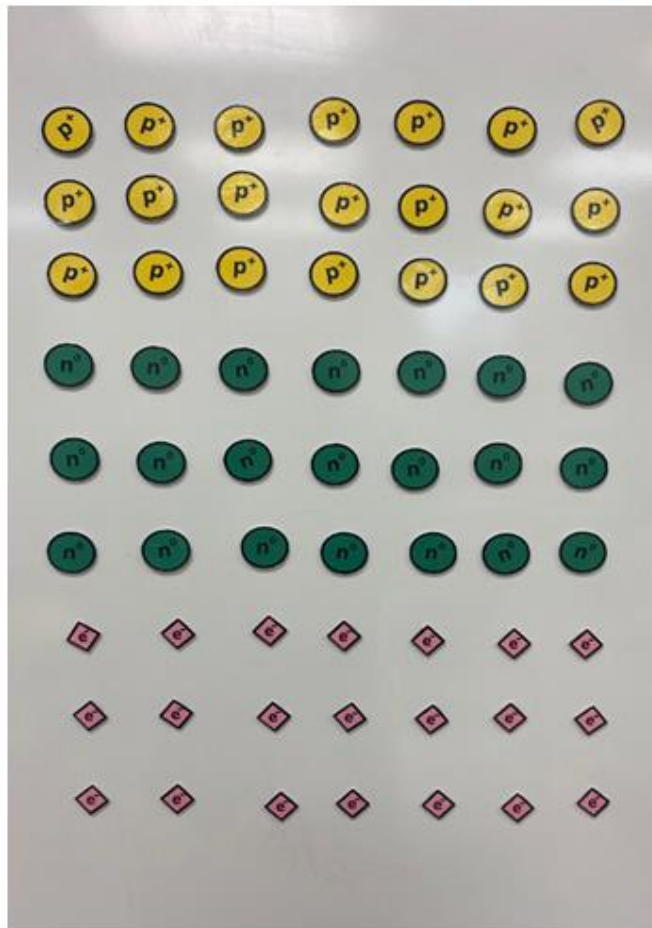
**Teacher Set
Measurement**

3"



**Student Set
Measurement**

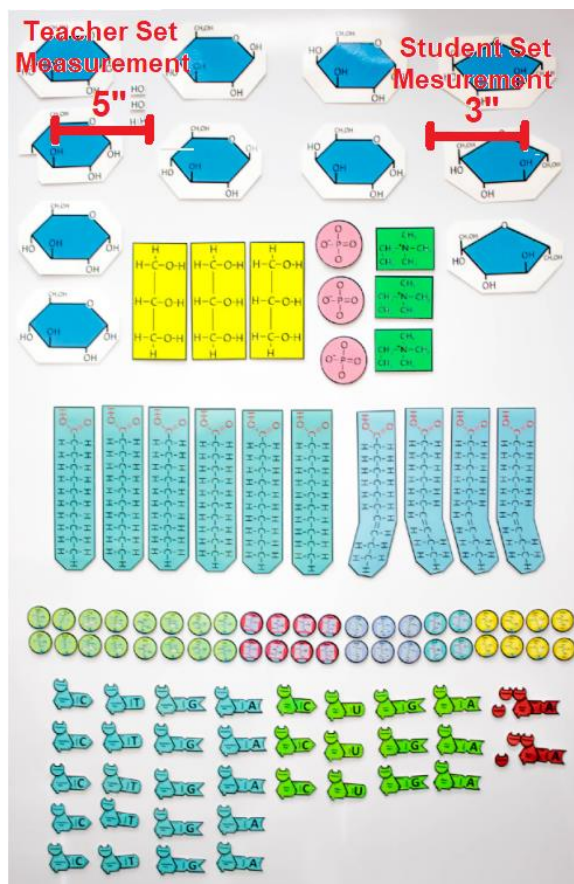
2"



Module 1 - Organic Molecules

This module contains tools for the instruction of the four types of organic molecules - carbohydrates, lipids, proteins, and nucleic acids. Teachers and students can build and model a huge variety of organic molecules with the monomers included. Magnets also allow instruction and modeling of condensation and hydrolysis reactions. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The module includes 114 magnets and 4 written lessons with a teacher and student guides as well as extra exercises for activities lasting up to or exceeding 320 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

- Item 1M – Module 1 Teacher Set - \$75.00
- Item 1MC – Carbohydrates Only Teacher Set - \$20.00
- Item 1ML – Lipids Only Teacher Set - \$20.00
- Item 1MP – Proteins Only Teacher Set - \$25.00
- Item 1MN – Nucleic Acids Only Teacher Set - \$20.00
- Item 5D – DNA Nucleotides Only Teacher Set - \$10.00
- Item 1MST – Module 1 Student Set - \$50.00
- Item 1MCST – Carbohydrates Only Student Set - \$15.00
- Item 1MLST – Lipids Only Student Set - \$15.00
- Item 1MPST – Proteins Only Student Set - \$15.00
- Item 1MNST – Nucleic Acids Only Student Set - \$15.00
- Item 5DST – DNA Nucleotides Only Student Set - \$5.00



Module 3 - Photosynthesis and Respiration

This module contains tools for the instruction of photosynthesis and cellular respiration. Magnets representing molecules involved in the processes allow teachers and students to model the light reactions, Calvin cycle, breakdown of glucose, fermentation, and the electron transport chain inside the mitochondrion. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The module includes 84 magnets and 4 written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 300 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

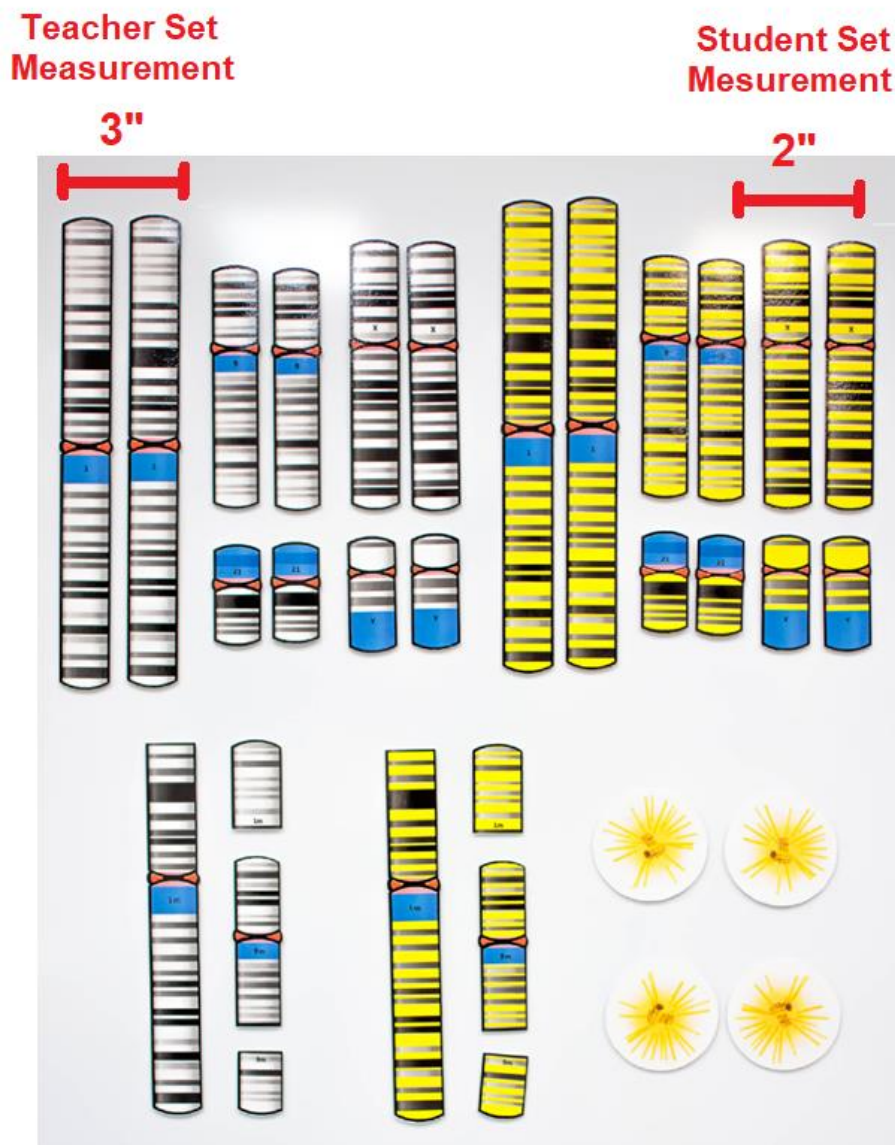
- Item 3M – Module 3 Teacher Set - \$60.00
- Item 3MST – Module 3 Student Set - \$45.00



Module 4 - Chromosomes

This module contains chromosome magnets and centrioles for teacher and student instruction and modeling of the cell cycle, mitosis, meiosis, mutations, and karyotyping. Linked genes, independent assortment, sex chromosomes, and banding nomenclature can also be investigated using these models. The teacher set is larger and is designed to be used at the board in the front of a classroom, while the student set is smaller and is designed for individuals, small groups, and tutoring using a smaller whiteboard. The module includes 33 magnets and 3 written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 240 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

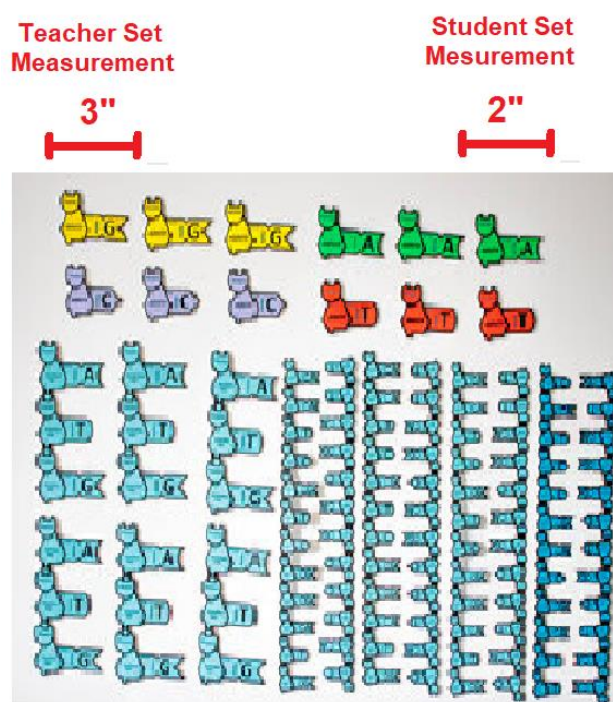
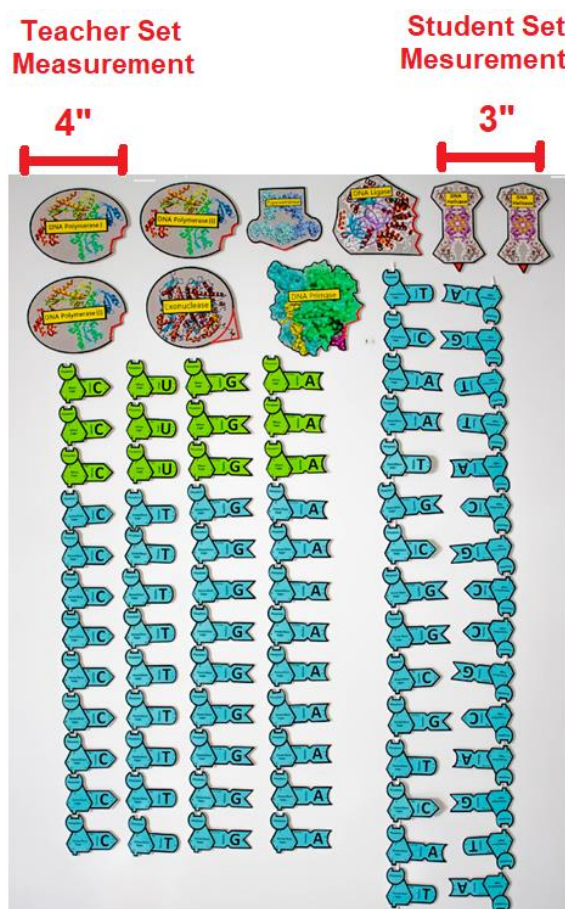
- Item 4M – Module 4 Teacher Set - \$30.00
- Item 4MST – Module 4 Student Set - \$20.00



Module 5 - DNA Replication

This module contains tools for teacher and student instruction of the process of DNA replication. An optional supplement package allows the teaching of Sanger sequencing and the Meselson and Stahl experiment. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The main module includes 87 magnets, with 30 DNA nucleotides strung together in two strands to make quickly interlocking antiparallel sides. The supplement package includes 26 magnets. Also included are three written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 160 minutes of instructional time. A DNA nucleotides only packet is available which includes 16 nucleotides, 4 of each base. The magnets arrive in a clasp folder that can be used for organization and storage.

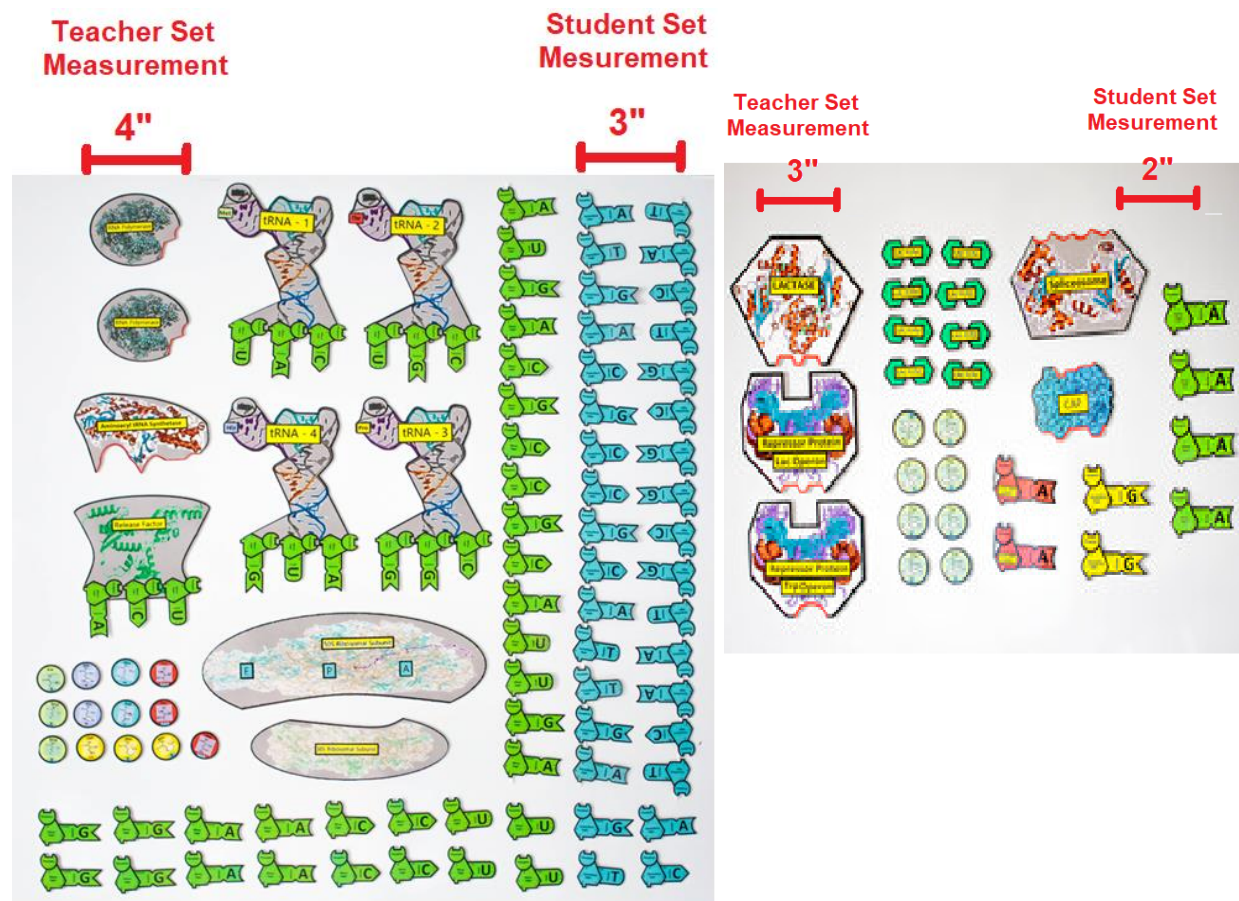
- Item 5M – Module 5 Teacher Set with Supplement - \$75.00
- Item 5MA – Module 5 Teacher Set with no Supplement - \$60.00
- Item 5MS – Module 5 Teacher Set supplement package only - \$20.00
- Item 5D – DNA Nucleotides Only Teacher Set – 16 nucleotides - \$10.00
- Item 5MST – Module 5 Student Set with Supplement - \$50.00
- Item 5MAST – Module 5 Student Set with no supplement - \$40.00
- Item 5MS – Module 5 Student Set supplement package only - \$15.00
- Item 5DST – DNA Nucleotides Only Student Set – 16 nucleotides - \$5.00



Module 6 - Transcription and Translation

This module contains tools for teacher and student instruction of the processes of transcription and translation. An optional supplement package allows the teaching of mRNA processing and the operon system (Lac and Trp). The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The main module includes 89 magnets, with 30 DNA nucleotides strung together in two strands to make quickly interlocking antiparallel sides. Also included is an mRNA strand on a string 15 nucleotides long for easy manipulation and movement through the ribosome. The supplement package includes 30 magnets. Also included are three written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 180 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

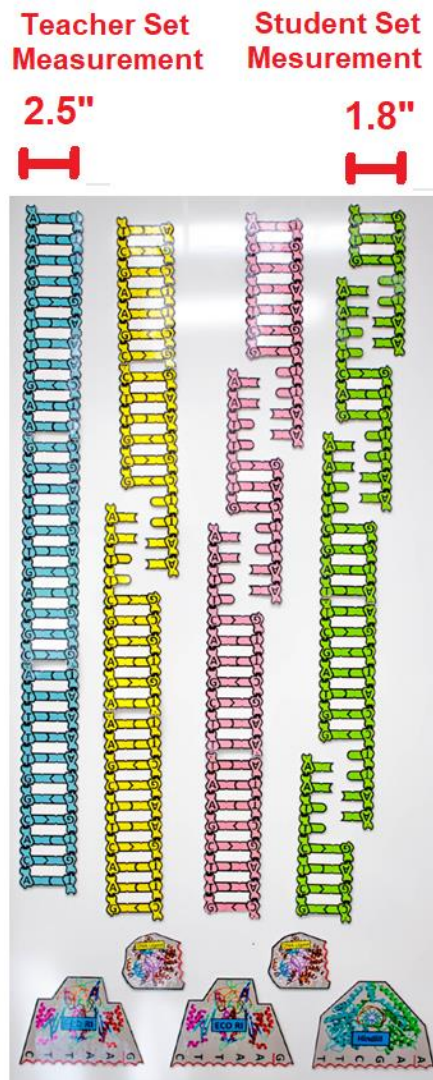
- Item 6M – Module 6 Teacher set with Supplement - \$85.00
- Item 6MA – Module 6 Teacher set with no Supplement - \$70.00
- Item 6MS – Module 6 Teacher set supplement package only - \$20.00
- Item 6MST – Module 6 Student set with Supplement - \$65.00
- Item 6MAST – Module 6 Student set with no Supplement - \$55.00
- Item 6MSST – Module 6 Student set supplement package only - \$15.00



Module 7 - Biotechnology

This module contains tools for teacher and student instruction of the processes of DNA fingerprinting and genetic engineering using EcoRI and HindIII restriction enzymes. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The main module includes 22 magnets, several of which are attached together to make four different DNA strands. The strands arrive folded to fit in a conveniently sized storage envelope. The module also includes two written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 100 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

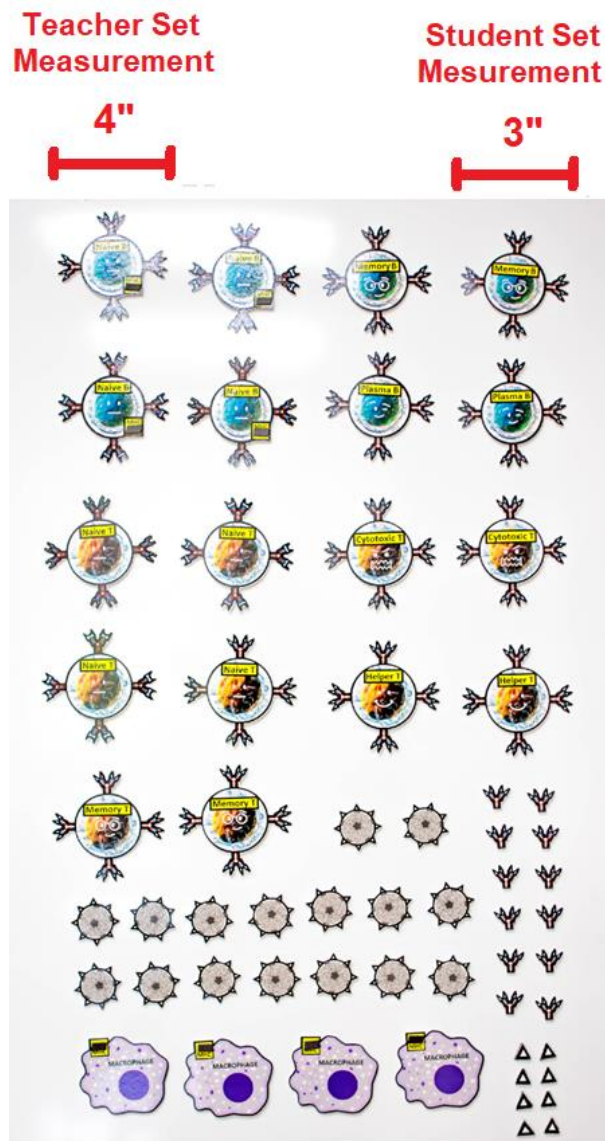
- Item 7M – Module 7 Teacher Set - \$50.00
- Item 7MST – Module 7 Student Set - \$35.00



Module 8 - Immune System

This module contains tools for teacher and student instruction of cell communication through immune system interactions of T cells, B cells, macrophages, antigens, and antibodies. The module includes emoji faces on the cells for easier identification. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The module includes 59 magnets and 2 written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 140 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

- Item 8M – Module 8 Teacher Set - \$50.00
- Item 8MST – Module 8 Student Set - \$35.00



Module 9 - Food Chains and Food Webs

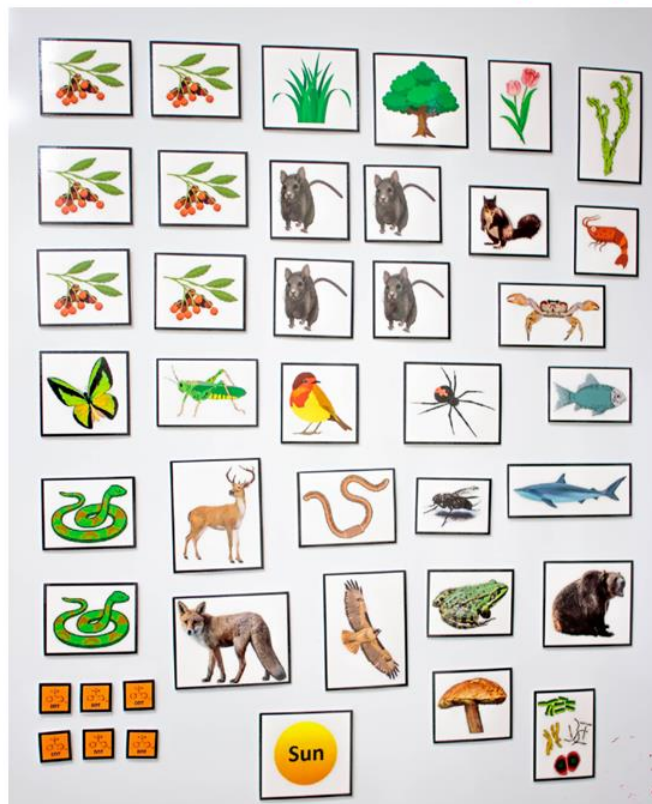
This module contains tools for teacher and student instruction of food chains, food webs, ecological pyramids, biomagnification, and cladograms. Students place magnets on the board with pictures of organisms to create various food chains and food webs. Students must correctly place and draw arrows between magnets demonstrating relationships. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The module includes 50 magnets and 3 written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 150 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

- Item 9M – Module 9 Teacher Set - \$30.00
- Item 9M – Module 9 Student Set - \$20.00

Teacher Set
Measurement



Student Set
Measurement



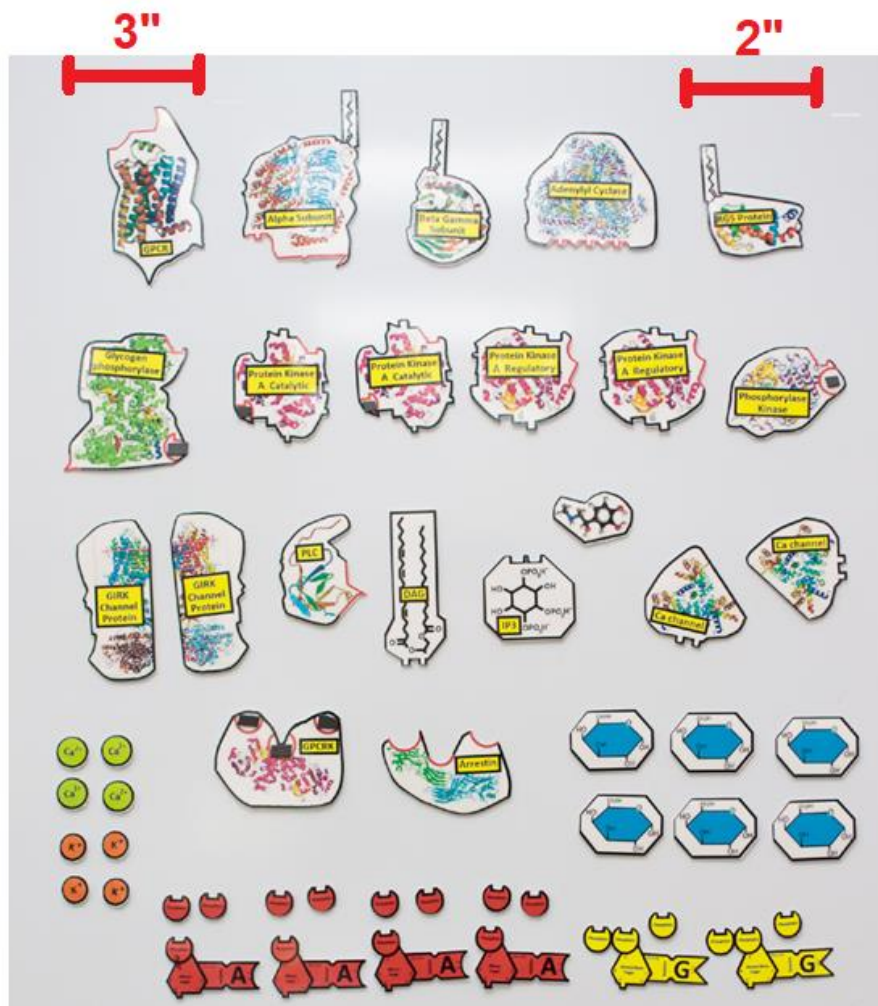
Module 10 - Cell Signaling

This module contains tools for teacher and student instruction of cell signaling. Module 10A includes 53 magnets and is used to model G-protein signaling with the epinephrine-signaling pathway as well as the IP3 DAG pathway. Module 10B includes 31 magnets and models the MAPK signaling pathway and steroids. The two modules can be ordered together or separately and can be used independently of one another.

- Item 10M – Module 10 Teacher Set - \$50.00
- Item 10MA – Module 10A G-Protein/Epinephrine only Teacher Set - \$35.00
- Item 10MB – Module 10B MAPK/Steroids only Teacher Set - \$25.00
- Item 10MST – Module 10 Student Set - \$40.00
- Item 10MAST – Module 10A G-Protein/Epinephrine only Student Set - \$30.00
- Item 10MBST – Module 10B MAPK/Steroids only Student Set - \$20.00

Teacher Set Measurement

Student Set Measurement

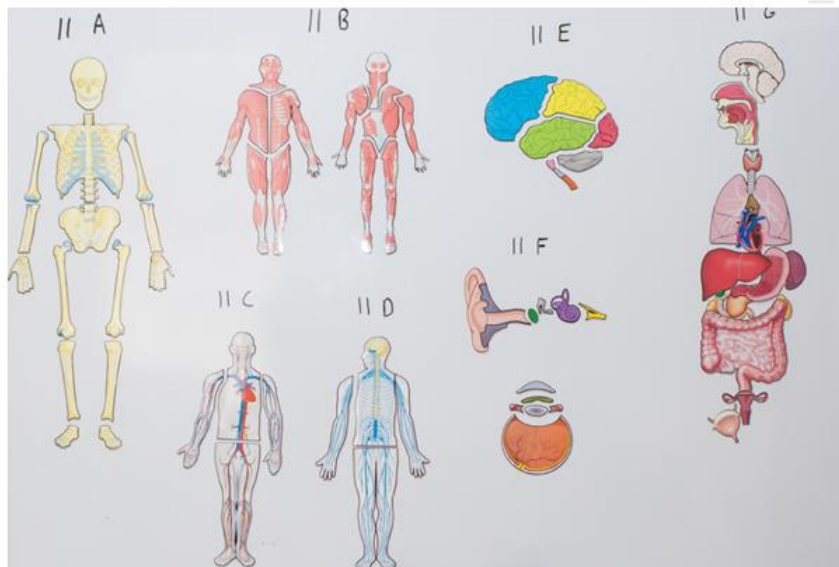


Module 11 - Human Anatomy

This module contains tools for teacher and student instruction of human anatomy. It includes seven sub-modules that cover the skeletal, muscular, circulatory, and nervous systems, the parts of the brain, the parts of the eye and ear, and the body organs. The magnets are useful for memorization of parts and for locating anatomy. The module includes written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding six hours of instructional time. The magnets arrive in clasp folders that can be used for organization and storage.

- Item 11M – Module 11 Teacher Set - \$95.00
- Item 11MA – Skeletal system only Teacher Set - \$25.00
- Item 11MB – Muscular system only Teacher Set - \$20.00
- Item 11MC – Circulatory system only Teacher Set - \$10.00
- Item 11MD – Nervous system only Teacher Set - \$10.00
- Item 11ME – Parts of the Brain only Teacher Set - \$10.00
- Item 11MF – Parts of the Eye and Ear only Teacher Set - \$10.00
- Item 11MG – Body organs only Teacher Set - \$25.00
- Item 11MST – Module 11 Student Set - \$60.00
- Item 11MAST – Skeletal system only Student Set - \$15.00
- Item 11MBST – Muscular system only Student Set - \$10.00
- Item 11MCST – Circulatory system only Student Set - \$5.00
- Item 11MDST – Nervous system only Student Set - \$5.00
- Item 11MEST – Parts of the Brain only Student Set - \$10.00
- Item 11MFST – Parts of the Eye and Ear only Student Set - \$10.00
- Item 11MGST – Body organs only Student Set - \$15.00

Teacher Set Measurement



Student Set Measurement



Module 12 - Carbon and Nitrogen Cycles

This module contains tools for teacher and student instruction of the carbon and nitrogen cycles. Module 12A is used to model the carbon cycle, and Module 12B models the nitrogen cycle. Processes with 12A include carbon fixation, photosynthesis and respiration, decomposition, fossilization, and ocean cycling. Processes with 12B include nitrogen fixation, nitrification, assimilation, denitrification, and ammonification. The two modules can be ordered together or separately and can be used independently of one another. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. Module 12A includes 52 magnets and Module 12B includes 43 magnets. Both include written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 120 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

- Item 12M – Module 12 Teacher Set - \$60.00
- Item 12MC – Carbon cycle only Teacher Set - \$40.00
- Item 12MN – Nitrogen cycle only Teacher Set - \$30.00
- Item 12M – Module 12 Student Set - \$45.00
- Item 12MC – Carbon cycle only Student Set - \$30.00
- Item 12MN – Nitrogen cycle only Student Set - \$20.00

**Teacher Set
Measurement**



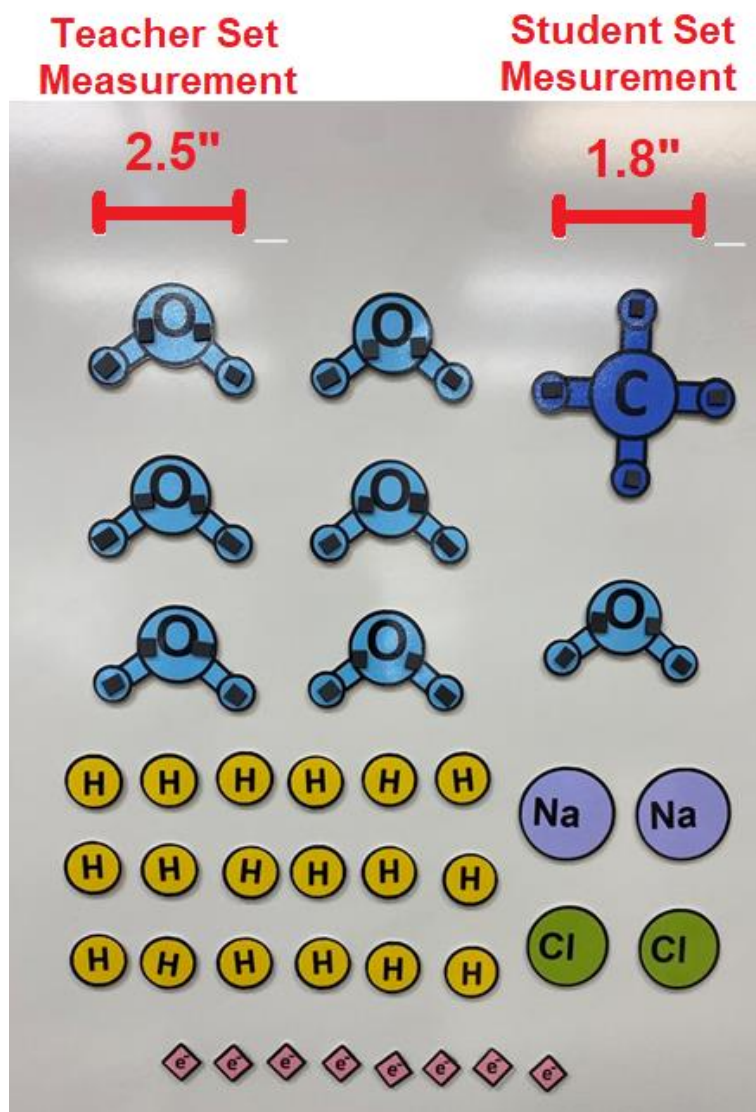
**Student Set
Measurement**



Module 13 – Properties of Water, Acids and Bases

This module contains tools for teacher and student instruction of the properties of water and of acids and bases. Demonstrations include how hydrogen, hydronium, and hydroxide ions form and break down, the formation of hydrogen bonds, how water acts as a solvent, frozen water configuration, the carbonic acid-bicarbonate buffer system, and other water property lessons. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. Module 13 includes 41 magnets and two lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 100 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

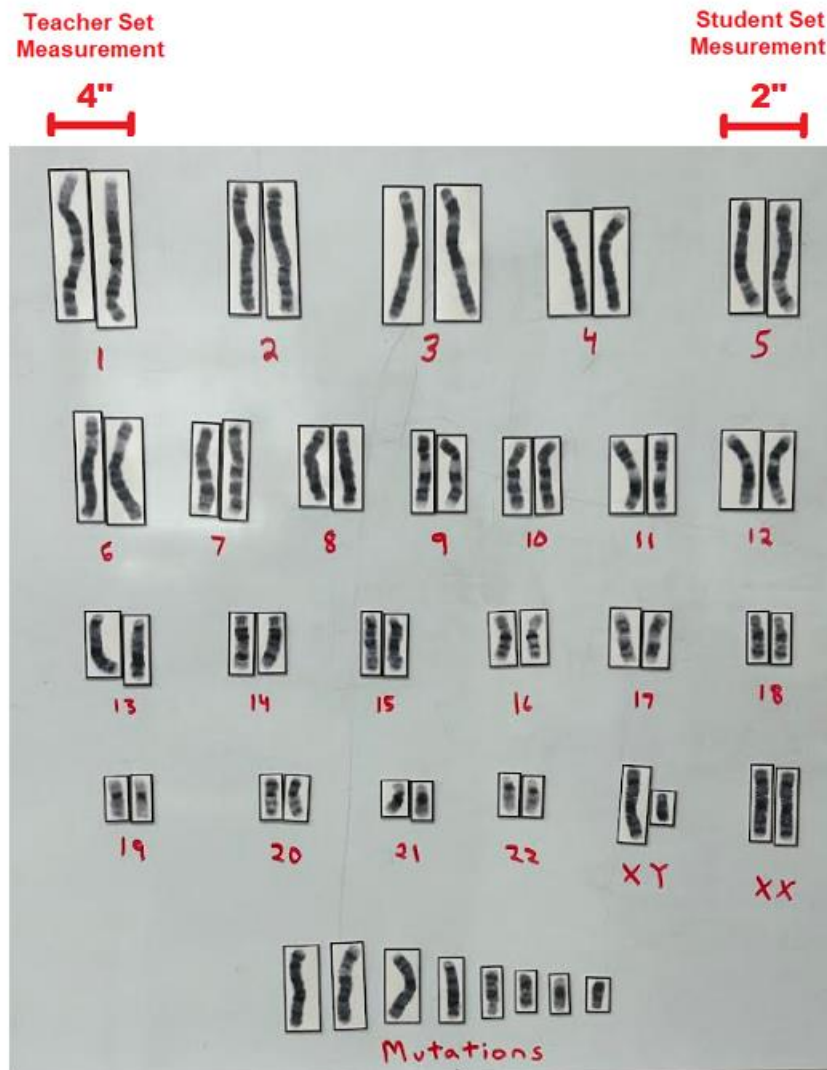
- Item 13M – Module 13 Teacher Set - \$25.00
- Item 13MST – Module 13 Student Set - \$20.00



Module 15 – Karyotypes

This module contains tools for the instruction of karyotypes. Teachers and students can construct a karyotype from chromosome pictures from a human diploid cell. The chromosomes can be paired based on size and banding patterns and put in numerical order to show the karyotype. An insert packet includes extra chromosomes that can be used to model chromosomal mutations and abnormalities. The teacher sets are larger and are designed to be used at the board in the front of a classroom, while the student sets are smaller and are designed for individuals, small groups, and tutoring using a smaller whiteboard. The module includes 56 magnets and written lessons with teacher and student guides as well as extra exercises for activities lasting up to or exceeding 120 minutes of instructional time. The magnets arrive in a clasp folder that can be used for organization and storage.

- Item 15M – Module 15 Teacher Set - \$35.00
- Item 15MST – Module 15 Student Set - \$20.00



Bundle and Save - 10% off if you bundle!

- Item 01113 – Biology and Anatomy Bundle
- Modules 0,1,2,3,4,5,6,7,8,9,10,11,12,13,15
- \$685 Teacher's Set/\$490 Student Set

- Item 013 - Advanced Biology Bundle
- Modules 0,1,2,3,4,5,6,7,8,9,10,12,13,15
- \$600 Teacher's Set/\$430 Student Set

- Item 112 – Basic Biology Bundle
- Modules 1,2,3,4,5MA,6MA,7,9,10,12
- \$430 Teacher's Set/\$335 Student Set

- Item 123 – Middle School Life Science Bundle
- Modules 1,2,4,5MA,6MA,9,11,12
- \$385 Teacher's Set/\$260 Student Set

- Item 12811 – Anatomy and Physiology Bundle
- Modules 1,2,8,11
- \$220 Teacher's Set/\$155 Student Set

- Item 011314 – Chemistry Bundle
- Modules 0, 1, 13, 14
- \$160 Teacher's Set/\$110 Student Set

- Item 91213 – Environmental Science Bundle
- Modules 9, 12, 13
- \$105 Teacher's Set/\$95 Student Set

Future Modules/Lessons in development

Enzymes

Astronomy

Physics

Geometry/Math