

CONTENT: MARVELOUS MAJORITY & THE BONY BUNCH – Grade 5
NEWLY REVISED UNIT
STRAND: LIFE SCIENCE

STANDARD #'s Grades 3 - 5 - #1, #3, #5, #6, #7, #8, #10 - refer to DOE Life Science Standards

Concepts: Students need to:

- Build awareness of the purpose and function of magnification in biology by using tools to collect meaningful data
 - Hand lens
 - Microscope
 - How to use appropriately
 - Parts of the microscope
 - Collecting, recording and analyzing data based on observations made with microscope
- Build awareness of the purpose and function of classification in science by experiencing many examples of its use
 - Classification of shoes – determining how and why scientists classify
 - Classification of animals - Linnaean system (taxonomy)
- Learn the 5 classes of vertebrates and the 8 classes of invertebrates
- Develop and practice research skills / data collecting & recording strategies
 - Read and interpret various keys, field guides, field notes, internet sources, non-fiction texts
 - Create, label and interpret diagrams
 - Create, label and interpret concept maps
 - Science notebook entries
- Practice and hone their ability to compare and contrast by analyzing the similarities and difference between:
 - Vertebrates / invertebrates
 - Mollusks / arthropods
 - Sponges / cnidaria / coral
 - Flatworms / roundworms / earthworms
 - Mammal skulls
 - Food chain / food web
- Collect, examine, analyze and identify life in a pond water sample
- Dissect a squid
 - Learn appropriate use of dissection tools
 - Identify major organs of the squid
- Food chain
 - Animal role = producer / consumer / decomposer
 - Plant role = photosynthesis
 - Energy flow through an ecosystem / transfers / reduction in availability at each link

Performance Skills: Students will be able to:

- Science notebook entries illustrate an understanding of the role and importance of prediction, careful data recording, detailed note taking and focused observational sketching
- Demonstrate the ability to use magnification tools - in particular, a microscope to make detailed observations
- Verbally describe the parts of a microscope and identify the procedure to bring objects into focus
- Demonstrate, (orally, in writing, with technology or with a project), the ability to compare and contrast within the content of the unit
- Identify and/or describe characteristics of the 5 classes of vertebrates and the 8 classes of invertebrates
- Using content information and research strategies covered in the unit students successfully identify a mammal mystery skull.
- Asks questions and exhibit curiosity during unit of study
- Demonstrate the ability research skills to answer questions, gather information and provide evidence to support a claim

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VOCABULARY

Vertebrate
Invertebrate
Classification
Linnaean System
Kingdom
Phylum

Magnification
Microscope
Dissection
Squid
Roundworm
Flatworm
Segmented worm
Sponge
Coral
Cnidaria
Crustacean
Mollusks
Arthropod
Exoskeleton
Skeleton
Fish
Amphibian
Reptile
Bird
Mammal
Life cycle
Life span
Evolution
Organism
Adaptation
Food chain
Food web
Producer
Consumer
Decomposer
Prey
Predator
Endangered
Extinct