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The Phylum Masquerade and Other Games

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Introduction

These games are used at the end of our first semester introductory Biology course that focuses on diversity. Their purpose is to help students review the concepts and terminology of the animal phyla for their final exam. Done at the last lab of the semester, they not only let students realize that they probably need to do a little more review for the test, but they also end the semester in a very fun, positive way. Prizes are awarded that reflect the plant and animal groups the students have studied over the semester. These consist of a college cup filled with gummy worms, nuts, chocolate, candy canes , etc., wrapped in bench paper and lab tape. The games are very adaptable and could be used in a wide variety of courses for all levels of students.

The Phylum Masquerade

The Phylum Masquerade is a group activity in which students must costume a group member or members to portray the characteristics of their selected phylum. Each group in a lab period has a different phylum and prizes are awarded according to the accuracy and creativity deemed best by the instructors. We have the students choose which phylum they will represent before Thanksgiving break so that they can bring materials from home if necessary.

Instructor's Notes for Phylum Masquerade

1. If you have two adjacent lab rooms or two sections at the same time, combine the two for this so that more phyla can be represented.
2. Have students pick their phyla from 3x5 cards in a large beaker. You will be sampling without replacement so that there are no duplicates.
3. Write a master list of what group has picked which phyla. Groups have been known to just present a different group that they perceive to be easier or more fun.
4. When costumes are presented in lab, each person should write down the name of the phylum that each costume represents. If you want to have the most correct guesses as a secondary contest, do this silently.
5. Have all costumed people line up across the front of the room at the end and announce what they are and demonstrate their important characteristics.
6. Judges(in our case, TAs, instructors and the lab coordinator) should leave the room to discuss the selection of the winners.
7. All members of the winning groups get a prize.

The Phylum Masquerade -- Student Instructions

Rules

1. Each lab group of 4 will be assigned a phylum during the last lab before Thanksgiving Break.
2. The team will dress one or more of their members in a costume that will portray the characteristic features of the phylum. This does not necessarily mean that they should come dressed in a costume that looks like an animal in the phylum. They could come that way if the essential characteristics of the phylum are portrayed, but other ways of representing the characteristics of the phylum via costume are encouraged.
3. Each group will present their costume without words. You may not say anything that would serve as a hint in identifying what phylum you represent.
4. As each costume is displayed, each other person in the lab is to write down what phylum they think it is.
5. A panel of judges will rate each costume on
    a. Accuracy and completeness in presenting all of the characteristics features of the phylum
    b. Originality
    c. Humor
    d. Evidence of time and care being put into the construction of the costume
6. Prizes will be awarded to the group that has produced the costume that most accurately and creatively displays the characteristic features of their assigned phylum.
7. Special awards may be given for extraordinary effort, humor or creativity at the judges' discretion.

Your choices:

Ciliophora	Cnidaria	Arthropoda—Arachnida
Apicomplexa	Platyhelminthes	Arthropoda—Crustacea
Rhizopoda	Annelida	Arthropoda--Insecta
Porifera	Mollusca	Chordata

Get That Phylum Off My Back

Each student has a 3x5 card taped to his or her back by the instructor or teaching assistant. Each card has the name of a phylum or order written on it. There is no talking or discussion while the cards are being placed on the students' backs. Once all cards are in place, the game begins. Students ask "yes" or "no" questions of each other to determine the name on their back. They may NOT ask "Am I a ……." Suggestions are questions like: Do I have segmentation? Do I have radial symmetry? Do I have a closed circulatory system? Once a person thinks they know what they are, they go to the instructor and say what they believe they are. If they are correct, they are the winner and the game is over. If they are incorrect, they are sent back to gather more information. They are only allowed two wrong guesses to discourage guessing instead of logic.

NOTE: This game may go VERY quickly. Make sure that you follow the no talking rule while cards are applied or else one end of the room will be done while the other end is still getting their cards. You may extend to second, third etc places if you wish.

The Game of Phyla

Each person receives a game board and a list of more than 25 terms having to do with animal classification—the names of phyla and terms used to discuss animal phyla. Each person writes one different word from the list in each square of their game board. They fill all spaces except the FREE square at the center. The caller then reads a definition or other phrase. Players figure out what word is associated with that definition or phrase and put an X through the square on their game board that contains that word. The first person to get 5 X's in a row horizontally, vertically, or diagonally calls out "PHYLA" loudly. The judge checks the game board to be sure that the answers are correct. If they are, that person wins.

Student word list

The Game of PHYLA

Ciliophora	Chordata	Choanoflagellates
Apicomplexa	Diploblastic	Parazoa
Rhizopoda	Triploblastic	Eumetazoa
Porifera	Protostome	Bilateral Symmetry
Cnidaria	Deuterostome	Cephalization
Platyhelminthes	Coelom	Blastopore
Annelida	Schizocoelous	Acoelomate
Mollusca	Pseudocoelomate	Enterocoelous
Artropoda	Phylogeny	Cambrian explosion

Instructor's Word List

The Game of Phyla

Read the phrases in any order. Mark off the ones that you do so that you can check for correct answers and avoid duplicates. Alternate definitions are provided for a second round.

Ciliophora
- A protozoan phylum with two kinds of nuclei, a macronucleus and a micronucleus
- OR
- A protozoan phylum with locomotion by cilia

Apicomplexa
- A protozoan phylum in which all the species are parasitic
- OR
- The parasitic protozoan phylum that includes the causative agent for malaria

Rhizopoda
- A protozoan phylum which moves by pseudopods
- OR
- A protozoan phylum which includes the causative agent for amoebic dysentery

Porifera
- A metazoan phylum at the cellular level of complexity
- OR
- A phylum characterized by choanocytes and ameobocytes

Cnidaria
- A phylum with two cell layers and a gastrovascular cavity
- OR
- A phylum at the tissue level of organization

Platyhelminthes

A phylum with a ventral nerve cord and a gastrovascular cavity

Annelida
: A protostome, coelomate segmented phylum which uses metanephridia
OR
A phylum that includes the classes Oligochaeta, Hirudinea, and Polychaeta

Mollusca
: A protostome, coelomate phylum that is not segmented
OR
A phylum in which all members have a mantle and a foot

Arthropoda
: A protostome, coelomate, segmented phylum with jointed appendages
OR
Some classes of this phylum have a cephalothorax while others have a separate head and thorax

Chordata
: The only deuterostome phylum covered in class
OR
A phylum with gill slits, a notochord, dorsal hollow nerve cord and a muscular post-anal tail

Diploblastic
: A term that refers to an organism that has two body layers: epidermis and gastrodermis

Triploblastic
: A term that refers to an organism that has three body layers: epidermis, gastrodermis, and mesoderm

Protostome
: A group of several phyla with embryos in which a new mouth forms and the blastopore becomes the anus

Coelom
: A body cavity bounded by mesoderm

Acoelomate
: A condition of having mesoderm but with no body cavity within the mesoderm

Pseudocoelomate
: A condition of having three tissue layers and a body cavity but the cavity is not bound by mesoderm

Cambrian explosion
: The comparatively sudden adaptive radiation of animals to different animal phyla which started 545 million years ago

Choanoflagellates
: Protozoa which may have formed the first metazoans

Parazoa
: The subkingdom of animals containing the sponges

Eumetazoa
: The subkingdom of animals that includes all the phyla except the sponges

Bilateral symmetry
: A body form shaped so that a central longitudinal plane would divide the animal into two equal halves

Cephalization
: The development of a concentration of sensory structures at the anterior end

Blastopore
: The embryonic opening into the archenteron

Schizocoelous
: The formation of a coelom by splitting of the mesoderm

Enterocoelous
: The formation of a coelom by the production of pockets

Phylogeny
: The evolutionary history of a species or a group of related species

PHYLA Board

P	H	Y	L	A