

**FUNGUS KINGDOM NOTES****NAME**

| Kingdom | Unicellular or Multicellular | Heterotroph or Autotroph | Prokaryote or Eukaryote | Cell Wall or No Cell Wall |
|---------|------------------------------|--------------------------|-------------------------|---------------------------|
| Fungus  |                              |                          |                         |                           |

**PHYLUM****ASEXUAL REPRODUCTION****SEXUAL REPRODUCTION****ZYGOMYCETES  
(BREAD MOLD)****SPORES****HYPHA JOIN  
(ZYGOSPORES)****ASCOMYCETES  
(SAC FUNGUS)  
(YEAST, TRUFFLES  
MORELS)****BUDDING****ASCUS (8 ASCOSPORES)****BASIDIOMYCETES  
(CLUB FUNGUS)  
(MUSHROOMS, RUST  
SMUTS, PUFF BALLS)****BUDDING****BASIDIA (4 BASIDIOSPORES)****DEUTEROMYCETES  
(IMPERFECT FUNGUS)  
(PENICILLIN)****SPORES****NO KNOWN FORM  
OF SEXUAL REPRODUCTION****SYMBIOTIC FUNGUS**

**LICHENS = NOT A PHYLUM – A MUTUALISTIC RELATIONSHIP BETWEEN A FUNGUS AND ALGAE. THE FUNGUS BENEFITS FROM THE FOOD PROVIDED BY THE ALGAE AND THE ALGAE BENEFITS FROM THE MOISTURE PROVIDED BY THE FUNGUS.**

- **LICHENS ARE VERY DURABLE AND GROW ALMOST ANYWHERE EXCEPT WHERE THERE IS HEAVY POLLUTION!**

**MYCORRHIZAE = NOT A PHYLUM – A MUTUALIST RELATION BETWEEN PLANT ROOTS AND A FUNGUS. THE PLANTS BENEFIT BECAUSE OF INCREASED SURFACE AREA AND THE FUNGUS BENEFITS FROM NUTRIENTS FROM THE PLANT.**

**FUNGUS AND HUMANS****GOOD FUNGUS:****EDIBLE MUSHROOMS ARE HIGH IN VITAMIN D****BLUE GREEN MOLD = PENICILLIN (ANTIBIOTIC)****YEAST = BREAD DOUGH RISE (AEROBIC) ALCOHOL PRODUCTION (ANAEROBIC)****BAD FUNGUS:****CORN SMUT = DESTROY CORN CROPS****WHEAT RUST = DESTROY WHEAT CROP****RINGWORM = HUMAN PARASITE****ATHLETES FOOT = HUMAN PARASITE****MOLDS AND MILDEW = DESTROY FOOD AND GOODS****POISONOUS MUSHROOMS = SLOW THE HEART RATE**

## FUNGUS KINGDOM NOTES

NAME \_\_\_\_\_

### FUNGUS TERMS:

- |  |                 |
|--|-----------------|
| 1. _____ The study of fungus   | A. MUTUALISM    |
| 2. _____ In mushrooms one of the radiating rows on the underside of the cap.   | B. ASCUS        |
| 3. _____ A specialized club-shaped reproductive structure that forms on the gills of a mushroom.                       | C. MYCORRHIZA   |
| 4. _____ A carbohydrate that forms part of the cell wall of fungus.  | D. BASIDIOSPORE |
| 5. _____ A vegetative filament of fungus.  | E. GILL         |
| 6. _____ Spores that form in the basidium.   | F. MOLD         |
| 7. _____ A mass of tangled filaments of cells, such as the fungus that grows on bread.                                 | G. MYCOLOGY     |
| 8. _____ A unicellular fungus whose colonies resemble those of bacteria; known as the microorganisms that make bread.  | H. BUDDING      |
| 9. _____ A root-like structure anchors fungal hyphae to a solid substance.   | I. LICHEN       |
| 10. _____ A spore sac that forms on the surface of an ascocarp.  | J. ASCOSPORE    |
| 11. _____ One of eight haploid cells in an ascus.  | K. YEAST        |
| 12. _____ A form of symbiosis in which both organisms benefit from living together.                                    | L MYCELIUM      |
| 13. _____ On fungi, a form of asexual reproduction in which a part of a cell pinches off to produce an offspring cell. | M. RHIZOID      |
| 14. _____ A symbiotic association between fungi and plant roots.   | N. HYPHA        |
| 15. _____ A symbiotic relationship between fungi and green algae.  | O. CHITIN       |
| 16. _____ A mat of interwoven hyphae.  | P. BASIDIUM     |

### YEAST AND BREAD DOUGH LAB QUESTIONS

1. WRITE DOWN THE CHEMICAL EQUATION (YOU LEARNED THIS EARLIER THIS YEAR) THE YEAST WOULD BE GOING THROUGH DURING THE BREAD DOUGH RISING PROCESS.
2. WHAT DID THE WARM WATER DO FOR THE PROCESS?
3. WHAT DID THE SUGAR DO FOR THIS PROCESS?
4. WHAT GAS IS TRAPPED IN THE BREAD DOUGH?
5. WHY DOESN'T THE BREAD DOUGH RISE FOREVER? (BEFORE BAKING)
6. IS THE YEAST ALIVE AFTER BAKING?