

Definition of Mold

Mold, also spelled mould, in biology, **a conspicuous mass of mycelium (masses of vegetative filaments, or hyphae) and fruiting structures produced by various fungi** (kingdom Fungi). Fungi of the genera *Aspergillus*, *Penicillium*, and *Rhizopus* form mold and are associated with food spoilage and plant diseases.

Types of mold found at South Hadley High School

Alternaria: Distribution: *Alternaria* is one of the most common molds and is abundant worldwide. This genus contains around 40 to 50 different species, only a few of which are commonly found indoors. How it is spread: *Alternaria* spores are easily dispersed through the air by wind. Where it is found outdoors: *Alternaria* is common outdoors in soil, dead organic debris, foodstuffs, and textiles. It is also a plant pathogen and is frequently found on dead or weakened plants. Where it is found indoors: *Alternaria* can grow on a variety of substrates indoors when moisture is present.

Penicillium / Aspergillus: Distribution: *Penicillium* / *Aspergillus* are two separate genera of molds that are so visually similar that they are commonly discussed together as a group. Together, there are approximately 400 different species of *Penicillium* / *Aspergillus*. How it is spread: *Penicillium* / *Aspergillus* produce dry spore types that are easily dispersed through the air by wind. These fungi serve as a food source for mites, and therefore can be dispersed by mites and various insects as well. Where it is found outdoors: *Penicillium* / *Aspergillus* are found in soils, decaying plant debris, compost piles, fruit rot and some petroleum-based fuels. Where it is found indoors: *Penicillium* / *Aspergillus* are found throughout the home. They are common in house dust, growing on wallpaper, wallpaper glue, decaying fabrics, wallboard, moist chipboards, and behind paint. They have also been isolated from blue rot in apples, dried foodstuffs, cheeses, fresh herbs, spices, dry cereals, nuts, onions, and oranges.

Cladosporium: Distribution: *Cladosporium* is an abundant mold worldwide and is normally one of the most abundant spore types present in both indoor or outdoor air samples. This genus contains around 20 - 30 different species. How it is spread: *Cladosporium* produces dry spores that are formed in branching chains. Spores are released by twisting of the spore-bearing hyphae as they dry. Thus, the spores are most abundant in dry weather. Where it is found outdoors: *Cladosporium* is found in a wide variety of soils, in plant litter, and on old and decaying plants and leaves. Some species are plant pathogens. Where it is found indoors: *Cladosporium* can be found anywhere indoors, including textiles, bathroom tiles, wood, moist windowsills, and any wet areas in a home. Some species of *Cladosporium* grow at temperatures near or below 0(C) / 32(F) and can often be found on refrigerated foodstuffs and even frozen meat.