When describing a mushroom, it is useful to use the same terms professional mycologists use when describing them. First, you will learn what the terms mean so that when you read the description from a book you will understand exactly what they meant. Second, your descriptions will then be similarly understandable by anybody who has learned these terms.

A description of a mushroom can be given in terms of the following outline. Where a feature does not exist on a specimen the appropriate section can be left out. When describing a species, try to have young and mature specimens on hand and make sure your description describes the collection, not just one particular specimen.

Bold indicates things that need to be described even if you have a photograph. In other words, if you have photos of your specimens, you can use the photos as the description of the things that are shown in the photos. If you've cut one in half, we can see how the gills are attached to the stem. If you can't tell comething from your photos, then you need to describe it with words.

1. Cap

1.1. Size ? usually measured in centimeters. Measure the width and thickness, also the height if greater than the width.
1.2. Shape

1.2.1. General Shape ? these shapes are fairly general and vague. That is deliberate. It is OK to combine shapes to describe, e.g. convex-flat. If the mushroom changes shape as it ages, describe all forms.

1.2.1.1. Conic
1.2.1.2. Campanulate or Bell Shaped
1.2.1.3. Hemispherical
1.2.1.4. Convex
1.2.1.5. Flat

1.2.1.6. Depressed
1.2.1.7. Funnel Shaped or Infundibuliform

1.2.2. Modifiers ? e.g. convex, prominently, broadly umbonate.

1.2.2.1. Umbonate ? having a rounded bump (an umbo) above where the stem attaches to the cap.
1.2.2.2. Umbilicate ? having a depression like a belly button above where the stem attaches to the cap.

1.2.3. Margin ? if it is distinctive, describe the edge of the cap.

1.2.3.1. Incurved
1.2.3.2. Inrolled ? extreme case of Incurved.
1.2.3.3. Uplifted
1.2.3.4. Appendiculate or Finged
1.2.3.5. Striate

1.3. Texture

1.3.1. **Touch** ? describe the feel of the mushroom to your fingertip.

1.3.1.1. Dry
1.3.1.2. Moist

1.3.1.3. Sticky or Tacky
1.3.1.4. Slimy or Viscid or Glutinous ? if there is a visible slime layer, say so.

1.3.2. Visual

1.3.2.1. Smooth or Glabrous ? without any hairiness or fuzziness.
1.3.2.2. Fibrous or Fibrillose ? there can be large differences of degree in this feature.

1.3.2.2.1. Flattened or Appressed
1.3.2.2.2. Erect

1.3.2.3. Scaly
1.3.2.4. Warted ? mostly for Amanitas.

1.4. Color

1.4.1. When naming colors use obvious names (red, yellow) or try to compare to something which most anybody will be familiar with (cinnamon brown). Especially with browns or grays try to give a more detailed idea of color than simply saying it is brown.
1.4.2. Note differences between the center of the cap and the edge.
1.4.3. Note if the cap is Hygrophanous (if it changes color as it dries out), and what it changes from and to.

1.5. Context ? the flesh of the cap.

1.5.1. Thick or Thin
1.5.2. Color ? note color changes on exposure to air and on bruising.
1.5.3. **Tough or Fragile** ? note this only if it is unusually so.
1.5.4. **Odor** ? note any distinctive odor. This can be very important for identification in some species. Avoid naming an odor very few people are likely to have experienced. Some distinctive odors are:

1.5.4.1. Mild ? lacking in any distinctive odor.
1.5.4.2. Green Corn ? like the husks of fresh corn.
1.5.4.3. Almond ? sweet, like almond extract or benzaldehyde.
1.5.4.4. Phenolic ? like phenol, library paste, or sometimes described as Metallic.
1.5.4.5. Spicy ? something like cinnamon.
1.5.4.6. Sewer Gas
1.5.4.7. Mushroomy ? like the white button mushrooms (*Agaricus bisporus*) from the grocery.
1.5.4.8. Radish like
1.5.4.9. Farinaceous ? like freshly ground meal.

1.5.5. **Taste** ? break off a small piece of the cap (smaller that a fingernail), put it in you mouth, and chew for a few seconds to a minute, then spit it out (do not swallow). (Note ? avoid tasting species known to be very poisonous, such as deadly Amanitas). Avoid naming a flavor very few people are likely to have experienced. A few distinctive tastes are:

1.5.5.1. Mild ? lacking in any distinctive taste.
1.5.5.2. Acrid ? like hot pepper (this can be very strong in some species).
1.5.5.3. Farinaceous ? like freshly ground meal.
1.5.5.4. Bitter
1.5.5.5. Sour

1.6. Other ? anything not described above which is noteworthy.

2. Gills or Tubes or Teeth (Spore bearing surface)

2.1. Attachment to Stem ? in some species the gills are attached when young and become free; this is called Seceding.

2.1.1. Free
2.1.2. Adnexed or Notched
2.1.3. Adnate
2.1.4. Decurrent

2.2. Spacing ? Applies only to Gills.

2.2.1. Crowded ? so close together it is almost difficult to distinguish individual gills.
2.2.2. Close ? average
2.2.3. Subdistant
2.2.4. Distant

2.3. Breadth ? a relative judgement call. Only use this if they are unusually so. Applies only to Gills.

2.3.1. Broad
2.3.2. Narrow

2.4. Color ? the color often changes from young to mature specimens. In many species it is important to know the color in a young specimen. Note any color changes which may result due to injury. If the edge of the gill is a darker different color than the face it is termed Marginate ? note both colors.
2.5. Margin ? only note if the gill edge is not a smooth curve.
2.6. Other ? anything not described above which is noteworthy. A common example would be gills which turn into an ink-like slime as the mushroom ages ? these are termed Deliquescent.

3. Stalk (Stipe) ? note if the stalk is absent.

3.1. Location

3.1.1. Central
3.1.2. Eccentric ? off center on the cap, but not from the edge.
3.1.3. Lateral ? from the edge of the cap.

3.2. Size

3.2.1. Length from base to where it connects to the cap.
3.2.2. Thickness where it connects to the cap.

3.3. Shape ? in some species this may change with age.

3.3.1. Equal
3.3.2. Tapering ? state which direction is thinner. Tapering upward is thinner at the top.
3.3.3. Clavate or Bulb Shaped
3.3.4. Ventricose ? thickest in the middle.
3.3.5. Rooting ? the stem extends into the substrate like a taproot.

3.4. Texture

3.4.1. **Touch** ? describe the feel of the mushroom to your fingertip.

3.4.1.1. Dry
3.4.1.2. Moist
3.4.1.3. Sticky or Tacky
3.4.1.4. Slimy or Viscid or Glutinous ? if there is a visible slime layer, say so.

3.4.2. Visual

3.4.2.1. Smooth or Glabrous ? without any hairiness or fuzziness.
3.4.2.2. Fibrous or Fibrillose ? there can be large differences of degree in this feature.

3.4.2.2.1. Flattened or Appressed
3.4.2.2.2. Erect

3.4.2.3. Scaly

3.5. Color
3.6. Solidity

3.6.1. Hollow ? if filled with pith, note it.
3.6.2. Solid

3.7. **Consistency**

3.7.1. Fragile
3.7.2. Cartilaginous
3.7.3. Pliable
3.7.4. Brittle
3.7.5. Soft
3.7.6. Hard

3.8. Other ? any noteworthy feature not mentioned above. Many mushrooms have a prominent Basal Bulb.

4. Veils

4.1. Partial Veil ? encloses the underside of the cap when the mushroom is young.

4.1.1. Texture

4.1.1.1. Cortina ? like a cobweb.
4.1.1.2. Membranous ? a solid sheet of tissue.

4.1.2. Leaves a Ring?

4.1.2.1. Persistent ? the ring is almost always present on mature specimens.
4.1.2.2. Evanescent ? the ring often or usually disappears as the mushroom matures.

4.1.3. Ring or Ring Zone

4.1.3.1. Location

4.1.3.1.1. Superior ? near the top of the stem.
4.1.3.1.2. Median ? near the middle of the stem.
4.1.3.1.3. Inferior ? toward the bottom of the stem.
4.1.3.1.4. Free and Movable ? as in some Lepiotas, for example.

4.1.3.2. Texture

4.1.3.2.1. Skirtlike ? membranous and hanging from the stem like a skirt.
4.1.3.2.2. Bandlike
4.1.3.2.3. Fibrous Ring Zone ? typical of many Cortinarius.
4.1.3.2.4. Slimy ? a zone of slime.
4.1.3.2.5. Double ? sometimes close examination will show the top and bottom edges of the ring will be free of the stem giving the appearance of two rings.

4.1.3.3. Color ? it may be different on the top and bottom. Note any color changes.
4.1.3.4. Other

4.2. Universal Veil ? encloses the entire mushroom when young.

4.2.1. Texture
4.2.2. Color ? including color changes.
4.2.3. Volva

5. Spores and Spore Print

5.1. Color ? this should be taken from a spore print on white paper. Note that in some species the color can change as the spore powder dries.
5.2. Size ? measure in microns. Requires a microscope and a minimum of about 400x magnification.
5.3. Shape ? requires a microscope.

5.3.1. Globose ? spherical or nearly so.

5.3.2. Ellipsoid
5.3.3. Oblong ? similar to ellipsoid, but more squared off.
5.3.4. Ovoid ? egg shaped.
5.3.5. Fusiform or Spindle Shaped
5.3.6. Nodulose
5.3.7. Cylindric

5.4. Ornamentation ? requires a microscope. Usually requires an oil immersion objective.

5.4.1. Warty
5.4.2. Partial or Broken Reticulum ? Reticulum is Latin for net.
5.4.3. Reticulate
5.4.4. Wrinkled
5.4.5. Striate or Grooved

5.5. Other

5.5.1. Amyloid ? staining dark blue with Meltzer's reagent. (Tincture of Iodine can substitute for Meltzer's)
5.5.2. Dextrinoid ? staining brownish with Meltzer's reagent.

6. **Habit**

6.1. Substrate

6.1.1. On the Ground ? note the kinds of trees nearby (pine or not is OK if you don't know)
6.1.2. On Wood ? note if living or dead.

6.1.2.1. Hardwood
6.1.2.2. Pine

6.1.3. On Dung
6.1.4. On Mushrooms ? attempt to determine what kind, even if only to genus.

6.2. Grouping

6.2.1. Single or Solitary
6.2.2. Groups ? a few at a time.
6.2.3. Gregarious or Troops ? many at a time.
6.2.4. Cespitose ? many growing from a common base
6.2.5. Fairy Rings

7. Other - anything else you think it might be helpful to mention