

ACTIVITY 4A: TEACHER HANDOUT

MAKE YOUR OWN IMPAIRMENT GLASSES

To construct your own “impairment glasses,” use safety glasses, recycled frames, swimming goggles, or cardboard cutouts. Design lens coverings for each impairment as described below:

cataract s— cover lenses with wax paper; scrape or “rough up” the surface of the glasses with steel wool; or cover the lens with Vaseline™.

glaucoma — paint over each lens (or cover with tape or felt) leaving only a small central area open to see through (approximately 1/2” circular opening) and “shield” the sides of the glasses, so peripheral vision is impossible.

macular degeneration — glue or stick label dots in the centers of each lens or paint a blackened area in center of each lens, leaving peripheral area clear.

diabetic retinopathy — paint over each lens (or cover with tape or felt) leaving only the sides of the glasses, so peripheral vision is impossible: hemianopsia — paint over half of each lens (or cover with tape or felt) — for example, occlude the left side of each lens, leaving the right side open to see through, this would represent left side homonymous hemianopsia; occlude the top half of each lens, leaving the bottom half open to see through to represent superior homonymous hemianopsia or the reverse to represent inferior homonymous hemianopsia.

detached retina — early phase — paint several small “floating” spots on one of the lenses (or stick several small map dots onto lenses); in this phase the victim may “see” spots or flashes of light; this phase passes in a few days, but the disease process continues.

— late phase — paint a darkened area along the outside edges and just under the center of one lens; then cover the center portion with Vaseline or scratch through the center with wavy lines.

— advanced phase — completely darken or paint over one lens (or cover with tape or felt) and shield the sides of the glasses so peripheral vision is also impossible.

reduced color vision — provide colored lenses, then look at pictures containing a variety of color, see which lenses confuse color detection; or lay a colored plastic sheet over a magazine page, notice which colors become indistinguishable.

Diagrams of six impairment glasses are provided as a handout (cataracts, glaucoma, macular degeneration, detached retina, diabetic retinopathy, and hemianopsia). These diagrams may be photocopied onto heavy stock paper and cut out for use in the classroom. The patterns may be attached to the glasses of children or made into masks.