

INTERACTIVE HEALTH: FINDING & USING THE POTENTIAL OF THE INTERNET

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- * **Interactive Health Resources** online at: http://www.mtwp.k12.pa.us/~jane_glass/iahealth
- * **2004 KEYSTONE HEALTH Workshop HIGHLIGHTS** online at: http://www.mtwp.k12.pa.us/~jane_glass/

- **Aren't we all looking for resources to JUICE up some of our lessons?**

Maybe you would just like to try adding something new - something different - something fun...

...So, the question is, how can we bring more activity-oriented lessons into our Health classes?

...Or, how can we integrate interactive technology into OUR classroom curriculum?

...And what resources are out there?



- **Don't we all wonder how today's technology and the World Wide Web can add some POP to our classes?**

...Have you thought about using computers MORE with your instructional plans?

...Have your administrators encouraged more technology integration in ALL curricular areas?



Topics or categories that are compiled at http://www.mtwp.k12.pa.us/~jane_glass/iahealth and for this presentation include:

- Anatomy & Physiology
- Calculators & Tools
- Cardiovascular
- Drug & Alcohol
- Fitness
- Mental Health
- Neurological Issues
- Nutrition
- Reproductive Issues
- Respiratory Health
- Social
- Tutorials
- Wellness

HIGHLIGHTS:

Anatomy & Physiology:

- Anatomy.TV (<http://www.anatomy.tv/default.aspx>)

3-D model of human anatomical parts

- Artificial Anatomy (http://americanhistory.si.edu/anatomy/bodyparts/nma03_bodyparts.html)

interactive anatomy assembly game, collection of amazingly life-like, papier-mâché anatomical human models & body parts

- BBC - The Human Body (<http://www.bbc.co.uk/science/humanbody/>)

interactive assembly games for senses, organs, skeleton, muscles & nervous system

- Get Body Smart (<http://www.getbodysmart.com/>)

visual and tutorial interactives of skeletal, muscular, nervous, circulatory, respiratory and urinary systems

- The Virtual Body by Medtropolis (<http://www.medtropolis.com/VBody.asp>)

human brain, (build a) skeleton, heart and (organize your organs) digestive tract; listen to narrated neurons!

http://www.mtwp.k12.pa.us/~jane_glass/iahealth.htm

Calculators & Tools:

- **Calorie Chart Index** (http://www.diet-i.com/calorie_chart/) calories & fats in foods by categories
- **Calories per Hour.com** (http://www.caloriesperhour.com/index_burn.html) calories burned, BMI, activity list (http://caloriesperhour.com/index_food.html) food calories, serving info, tracking & comparison calculators
- **Health Calculators & Charts** (<http://www.halls.md/index.htm>) BMI, breast cancer risk, ideal weight, body surface area calculator, growth charts, height & weight charts
- **Washington Post Fast Food Calorie Counter** (<http://www.washingtonpost.com/wp-srv/flash/health/caloriecounter/counter.htm>) Burger King, KFC, McDonald's, Subway, Taco Bell & Wendy's



Cardiovascular System:

- **Biointeractive / Virtual Labs from the Howard Hughes Medical Institute** (<http://www.hhmi.org/biointeractive/cardiovascular/index.html>) become a "virtual intern" in a Cardiology Lab (also contains labs for Bacterial, Neurophysiology & Blood antibody testing); animations/interactives for T-cells, visible heart, viral infections; Virtual Museums and Web Videos on gender testing, antibiotics, heart size, and cardiovascular diseases
- **Biology in Motion** (<http://www.biologyinmotion.com/cardio/index.html>) animated Cardiovascular System Anatomy & Physiology
- **Children's Heart Institute - The Heart House** (<http://www.childrenheartinstitute.org/educate/eduhome.htm>) animations of blood flow, chambers and vessels; heart defect and disorder info
- **Coronary Surgical Procedures** (<http://www.hgcardio.com/procedures.htm>) visuals & tutorial on angioplasty, stents, EKG, treadmill tests, catheterization, pacemakers & treatments
- **COSI: Columbus Medical Association Open Heart** (<http://www.cosi.org/onlineExhibits/openHeart/anatomy2.html>) assemble the human heart, conduct virtual bypass surgery, tutorials, disease info, open heart surgery; anatomy, diseases, hospital, surgery, prevention, constructing a model
- **Franklin Institute's Heart Preview Gallery** (<http://sln.fi.edu/biosci/preview/heartpreview.html>) video of open heart surgery, physician's lecture, animation of structure, pulse-taking methods, x-rays, collection of heartbeat sounds & murmurs
- **HeartPoint: HeartPoint Gallery** (<http://www.heartpoint.com/gallery.html>) numerous cardio-related subtopics with animations, graphics and tutorials
- **HeartSite.com** (http://www.heartsite.com/html/heart_attack.html) panoramic views, 3-D animation, on-line lectures, narrated animations, streaming instructional video, and animated examples (angina, Congestive Heart Failure, Coronary Artery Disease, heart attack)
- **Heart Smart Quiz** (<http://www.mercksharpdohme.com/disease/heart/quiz/flash/heartquiz.html>) interactive, game-show-type cardiovascular disease review
- **NHLBI - HBP Slide Shows** (http://hin.nhlbi.nih.gov/nhbpep_slds/menu.htm) 4 downloadable High Blood Pressure Information slide shows
- **Nobel e-Museum Electrocardiogram Game** (<http://www.nobel.se/medicine/educational/ecg/index.html>) perform a virtual ECG on four cyber patients
- **NOVA Online / Electric Heart - Heart Transplant Surgery** (<http://www.pbs.org/wgbh/nova/eheart/transplant.html>) heart anatomy & physiology, amazing facts, surgical career info; grab the scalpel and sutures – you're a cyber surgeon!
http://www.mtwp.k12.pa.us/~jane_glass/iahealth.htm

- **PBS Partners of the Heart: You Be the Surgeon** (http://www.pbs.org/wgbh/amex/partners/breakthroughs/b_surgeon.html)
viewers get to be a virtual surgeon to repair a “blue baby’s” heart



- **Way Cool Surgery** (<http://www.waycoolsurgery.com/index.shtml>)
The site includes actual footage/video clips of coronary bypass surgery and was designed to teach students how they can reduce their risk for cardiac disease, 2) inform students about a variety of careers available in healthcare, and 3) allow students to observe and learn about surgical process.

- **X-Plain.com at MedlinePlus** (<http://www.nlm.nih.gov/medlineplus/tutorials/openheartsurgerywhattoexpect/ct079101.html>)
interactive visuals and descriptions of open heart surgery, hospital & surgical unit information

- **Your Genes, Your Health** (<http://www.ygyh.org/?Syndrome+hemo>)
animated slides and video clips on what, how, who why of hemophilia, cystic fibrosis, sickle cell, fragile X, Down Syndrome, Alzheimer's, and numerous other genetic disorders

Drug & Alcohol Substance Abuse:

- **The Cool Spot** (<http://www.thecoolspot.gov/>)
interactives, quizzes and role-playing with the pressures of alcohol

- **Drug & Alcohol Information** (US Dept. of HH&S) (<http://www.health.org/>)
drug information, resources, webcasts and downloadable PowerPoint slide shows

- **Indiana Prevention Resource Center** (<http://www.drugs.indiana.edu/slang/home.html>)
on-line dictionary contains more than 3,800 street drug slang terms

- **Students & Drinking: Examining the Culture** (<http://www.collegedrinkingprevention.gov/students/>)
Interactive Body traces the flow of alcohol, interactive videos discussing drinking myths

- **Talk to Frank** (<http://www.trashed.co.uk/>)
news, info, facts and interactives on the dangers of combining drugs; Roulette wheel game

- **Teen Get Going** (<http://www.teengetgoing.com>)
alcohol & drug info, interactive-simulation games & polls

- **University of Alberta Health Center (Books & Booze)** (<http://www.ualberta.ca/HEALTHINFO/>)
free interactive standalone program with Inventories

Fitness & Exercise: *(Also see Calculators)*

- **COSI's Virtual Knee Surgery** (<http://livingchildren.com/knee/>)
Try being a virtual Surgeon in an animated total knee replacement surgery; includes a section w/ actual surgery photos!

- **Fitness Slide show** (<http://www4.district125.k12.il.us/health/health/Exercise/sld001.htm>)
a downloadable slide show/powerpoint on physical fitness

- **InSite Fitness** (<http://www.insitefitness.com.au/>)
fitness testing, health tips & visually oriented lessons

Mental Health:

- **LUDA Education Foundation** (<http://www.ludavhs.org/foundation/health/l1/p1.jsp>)
demo lessons on self-esteem awareness, mental health, personality, emotions & stress

- **University of Alberta Health Center (Students & Stress)** (<http://www.ualberta.ca/HEALTHINFO/>)
free interactive standalone program with Inventories

Neurological Issues:

- **Brain Connection:** (<http://www.brainconnection.com/topics/?main=anim/lobes>)
interactive images of the lobes of the brain, brain facts, resources & brain teasers
- **Hemisphericity Tests:** (http://www.girlzone.com/quizzler/BrainanaSplit2_qu.html)
tests, surveys & quizzes
- **Neuroscience For Kids:**
(<http://faculty.washington.edu/chudler/neurok.html>) & (<http://faculty.washington.edu/chudler/chgames.html>)
experiments, lesson plans, activities & brain games
- **NOVA Online:** (<http://www.pbs.org/wgbh/nova/coma/>)
brain geography explained through visuals, head trauma & coma
- **PBS: The Secret Life of the Brain:** (<http://www.pbs.org/wnet/brain/>)
history, anatomy, 3-D animated tour, illusions, MRIs & video clips
- **The Forgetting: A Portrait of Alzheimer's:** (<http://www.pbs.org/theforgetting/index.html>)
tutorial on symptoms, experience, risk factors, coping, resources
- **Think Quest: Sighting the First Sense:** (http://library.thinkquest.org/C001464/cgi-bin/view.cgi?show_item=perception)
perception, images, interactive vision labs & illusions
- **Thinks.com:** (<http://thinks.com/webguide/>)
brain games, crosswords, cryptograms, mathematical puzzles, illusions, word play & puzzles

Nutrition:

- **3 Fat Chicks.com** (<http://www.3fatchicks.com/>)
fast food guide, calorie counters, calculators
- **Eating Disorders: body icon** (<http://nm-server.jrn.columbia.edu/projects/masters/bodyimage/toc.htm>)
topics of the body, its history, as a commodity, the forbidden food, fighting back and body modification
- **Nutrition Café** (<http://www.exhibits.pacsci.org/nutrition/default.html>)
elementary to middle school level games
- **Strength & Nutrition Webquest**
(<http://www.manteno.k12.il.us/webquest/high/Science/StrengthNutrition/strength.htm>)
an Internet project challenging students to create and design a diet an exercise program for a virtual client
- **University of Alberta Health Center (Munchies: Eating Well on a Student Budget)**
(<http://www.ualberta.ca/HEALTHINFO/>)
free interactive standalone program with Inventories



Reproductive Health Concepts & Issues:

- **NOVA Online: Life's Greatest Miracle** (<http://www.pbs.org/wgbh/nova/miracle/program.html>)
Quicktime movies/RealVideo on the various stages of conception, embryonic and fetal development
- **Gene Scene** (<http://ology.amnh.org/genetics/>)
a fun, interactive view of genetics, DNA and cloning issues for elementary ages
- **Univ of Alberta Health Center (AIDS; STDs; Birth Control; Sexual Decisions)** (<http://www.ualberta.ca/HEALTHINFO/>)
free interactive standalone program with Inventories
- **X-Plain.com at MedlinePlus** (<http://www.nlm.nih.gov/medlineplus/tutorials/sexuallytransmitteddiseases.html>)
interactive presentation of STDs, symptoms, diagnosis, treatments & prevention

http://www.mtwp.k12.pa.us/~jane_glass/iahealth.htm

* over 165 other interactive tutorials at (<http://www.nlm.nih.gov/medlineplus/tutorial.html>)

• What About AIDS? (<http://www.nyhallsci.org/whataboutaids/main.html>)

background material, FAQs, protection methods, treatments, stories

Respiratory Health Issues & Smoking:

• American Lung Association (http://www.lungusa.org/resp_fl/lungsfinal.html)

interactive views of how the respiratory system works

• Asthma Tutorial (<http://www.people.virginia.edu/~smb4v/tutorials/asthma/asthma1.html>)

tutorial explaining the what, why & how; video animation, audio file of asthma

• Chest X-Ray.com (<http://www.chestx-ray.com/Lectures/SmokeWeb/NavigationSmoke.html>)

interactive, visual slide show of “What Happens to the Puff?”

• Virtual Children’s Hospital: Picture This...Don’t Smoke

(<http://www.vh.org/pediatric/patient/cancercenter/smokingteens/index.html>)

interactive teenage bodies depicting health risks of smoking

Social Health:

• BAM: Body and Mind / Survival Skills / KABAM! Comic Creator (<http://www.bam.gov/survival/kabam.htm>)

cool interactive comic strip creator for stress at school, friendships, coping with family problems

• Runaway Interactive (<http://www.therunawaygame.com/>)

assume the role of a young runaway and face the situations, choices and decisions in 20 different interactive scenarios

• Sexual Violence - Stopping Rape (http://pcar.org/about_sa/stop.html)

PA Coalition Against Rape information and online quiz

Tutorials & Slide Shows:

• BBC Interactive Body (<http://www.bbc.co.uk/science/humanbody/>)

organs, skeleton, muscle, nervous system and senses games; psychology tests; brain interactives



• Biointeractive from Howard Hughes Medical Institute

(<http://www.hhmi.org/biointeractive/neuroscience/animations.html>)

neuroscience, cardiovascular & infectious disease lectures, virtual labs, animations & games

• Chest X-ray.com (<http://www.chestx-ray.com/Education/Education.html>)

anatomy & physiology tutorials; animated diagrams, slide shows, lectures on smoking, lung cancer screening, chest trauma, cardiovascular disease

• CPR (<http://depts.washington.edu/learncpr/index.html>)

video, illustrated guides, quizzes, facts, games and links for CPR and choking

• Childrens’ Heart Institute (<http://www.childrenheartinstitute.org/educate/murmur/murmur.htm>)

heart murmur sounds

• Great Achievement in Health Technologies (http://www.greatachievements.org/greatachievements/ga_16_1.html)

interactive look at 16 historical & monumental health discoveries

• Human Body Interactive (<http://www4.tpgi.com.au/users/amcgann/body/>)

interactive look into all the major body systems

• Mayo Clinic Slide Show Tutorials (<http://www.mayoclinic.com/programsandtools/slideshows.cfm>)

cardiac rehab, congenital heart defects, anatomy, hearing, weight lifting techniques, stretching exercises, digestion, “secret life of the heart” slide show, fitness level assessment slide show; cardiac rehab slide show; serving size slide show

http://www.mtwp.k12.pa.us/~jane_glass/iahealth.htm

- **Medical Library Illustrated Guides**

(http://a1977.g.akamai.net/f/1977/1448/1d/webmd.download.akamai.com/1448/CAD_animated_cons/what.html) coronary artery disease; also (http://a1977.g.akamai.net/f/1977/1448/1d/webmd.download.akamai.com/1448/Stroke_animated_cons/what.html) stroke

- **MedLine Plus** (<http://www.nlm.nih.gov/medlineplus/tutorial.html>) interactives and tutorials

- **University of Minnesota – Twin Cities** (<http://webhome.crk.umn.edu/~dlim/itc/interactives.asp>) Flash / animated learning games on disease, epidemic, food science, nutrition & safety

Wellness & Health Care:

- **Mayo Clinic Slide Show Tutorials** (<http://www.mayoclinic.com/programsandtools/slideshows.cfm/>) slide show on mental sharpness for senior citizens

- **The Toxic House** (http://www.cbc.ca/natureofthings/toxic_flash/toxic_house_flash.html) room by room interactive descriptions of indoor pollution – synthetic and organic sources

- **Tox Town - Health & toxic substances in the environment** (<http://toxtown.nlm.nih.gov/>) visual, audio and interactive journeys to the hazards in everyday town and city life

- **WebMD's Find a Doctor** (<http://my.webmd.com/pages/dir/toc.asp>) a database of general practitioners or specialists

SOME FINAL THOUGHTS TO SHARE:

- **Our world vs. the world of students TODAY:**



.....Just consider the aspects of technology and instant feedback....

- *what were YOUR phones like while growing up?*
- *how did YOU learn about the "new songs" released while growing up?*
- *what were YOUR "high tech" games while growing up?*
- *what were YOUR "high tech" teaching tools while growing up?*
- *what were YOUR classroom teaching styles/environments like while growing up?*

- **Comments about learning styles from Southeastern Oklahoma State University:**

"...appropriate use of instructional technology can even be fun. For your students it can help increase retention, make learning relevant, and even enjoyable."

- **Research and data** from Dr. Richard Felder at North Carolina State University, So. Oklahoma State Univ., and the University of Michigan support that:

67% of students learn best actively - by doing something physical with the information
vs. doing the processing in their heads

69% prefer the visuals of charts, diagrams and pictures to learn something new
vs. delivery by the spoken or written word

- **Statistics on learning** from University of Western Michigan:

We retain only 20% of what is heard, but retain 90% of what is said while doing!

- All of this supports the **Ancient Chinese proverb:**

*"Tell me and I will forget;
Show me and I may remember;
Involve me and I will understand."*



* The Learning Styles questionnaire from North Carolina State University can be found at:

<http://www.engr.ncsu.edu/learningstyles/ilsweb.html>

http://www.mtwp.k12.pa.us/~jane_glass/iahealth.htm