

# INTERACTIVE HEALTH: FINDING & USING THE POTENTIAL OF THE INTERNET

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- \* **Interactive Health Resources** online at: [http://www.mtwp.net/~jane\\_glass/iahealth](http://www.mtwp.net/~jane_glass/iahealth)
- \* **2005 I.U. 22 HPE Workshop HIGHLIGHTS** online at: [http://www.mtwp.net/~jane\\_glass/](http://www.mtwp.net/~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.net/~jane\\_glass/iahealth](http://www.mtwp.net/~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](http://americanhistory.si.edu/anatomy/bodyparts/nma03_bodyparts.html))  
interactive anatomy assembly game, collection of 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](http://www.mtwp.k12.pa.us/~jane_glass/iahealth.htm)

## **Calculators & Tools:**

- [Calories per Hour.com](http://www.caloriesperhour.com/index_burn.html)

([http://www.caloriesperhour.com/index\\_burn.html](http://www.caloriesperhour.com/index_burn.html)) calories burned, BMI, activity list

([http://caloriesperhour.com/index\\_food.html](http://caloriesperhour.com/index_food.html)) food calories, serving info, tracking & comparison calculators

- [Health Calculators & Charts](http://www.halls.md/index.htm) (<http://www.halls.md/index.htm>)

BMI, breast cancer risk, ideal weight, body surface area calculator, growth charts, height & weight charts

- [NIH Body Mass Index Tool](http://www.nhlbisupport.com/bmi/bmicalc.htm) (<http://www.nhlbisupport.com/bmi/bmicalc.htm>)

plug in height and weight, it estimates BMI

- [Training Heart Rate Calculation](http://k2.kirtland.cc.mi.us/~balbachl/hearttrate.htm) (<http://k2.kirtland.cc.mi.us/~balbachl/hearttrate.htm>)

interactive tools



- [Washington Post Fast Food Calorie Counter](http://www.washingtonpost.com/wp-srv/flash/health/caloriecounter/counter.htm) (<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)

(<http://www.hhmi.org/biointeractive/cardiovascular/index.html>)

become a "virtual intern" in a Cardiology 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) (<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) (<http://www.childrenheartinstitute.org/educate/eduhome.htm>)

animations of blood flow, chambers and vessels; heart defect and disorder info

- [COSI: Columbus Medical Association Open Heart](http://www.cosi.org/onlineExhibits/openHeart/anatomy2.html) (<http://www.cosi.org/onlineExhibits/openHeart/anatomy2.html>)

assemble the human heart, conduct virtual bypass surgery, tutorials, disease info; anatomy, diseases prevention

- [Franklin Institute's Heart Preview Gallery](http://sln.fi.edu/biosci/preview/heartpreview.html) (<http://sln.fi.edu/biosci/preview/heartpreview.html>)

video of open heart surgery, animation of structure, pulse-taking methods, x-rays, heartbeat sounds & murmurs

- [HeartSite.com](http://www.heartsite.com/html/heart_attack.html) ([http://www.heartsite.com/html/heart\\_attack.html](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)

- [Nobel e-Museum Electrocardiogram Game](http://www.nobel.se/medicine/educational/ecg/index.html) (<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) (<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!

- [PBS Partners of the Heart: You Be the Surgeon](http://www.pbs.org/wgbh/amex/partners/breakthroughs/b_surgeon.html)

([http://www.pbs.org/wgbh/amex/partners/breakthroughs/b\\_surgeon.html](http://www.pbs.org/wgbh/amex/partners/breakthroughs/b_surgeon.html)) be a virtual surgeon to repair a heart

- [Way Cool Surgery](http://www.waycoolsurgery.com/index.shtml) (<http://www.waycoolsurgery.com/index.shtml>)

footage/video clips of coronary bypass surgery; risk reductions for cardiac disease; careers available in healthcare

- [Your Genes, Your Health](http://www.ygyh.org/?Syndrome+hemo) (<http://www.ygyh.org/?Syndrome+hemo>)

slides/video clips hemophilia, cystic fibrosis, sickle cell, fragile X, Down Syndrome, Alzheimer's, etc.

### **Drug & Alcohol Substance Abuse:**

- [Chemicals in Cigarettes](http://www.quia.com/jg/72157.html) (<http://www.quia.com/jg/72157.html>)  
interactive matching, flashcards, "Concentration" game and word search
- [The Cool Spot](http://www.thecoolspot.gov/) (<http://www.thecoolspot.gov/>)  
interactives, quizzes and role-playing with the pressures of alcohol
- [Students & Drinking: Examining the Culture](http://www.collegedrinkingprevention.gov/students/) (<http://www.collegedrinkingprevention.gov/students/>)  
Interactive Body traces the flow of alcohol, interactive videos discussing drinking myths
- [Teen Get Going](http://www.teengetgoing.com) (<http://www.teengetgoing.com>)  
alcohol & drug info, interactive-simulation games & polls
- [University of Alberta Health Center \(Books & Booze\)](http://www.ualberta.ca/HEALTHINFO/) (<http://www.ualberta.ca/HEALTHINFO/>)  
free interactive standalone program with Inventories

### **Fitness & Exercise:** *(Also see Calculators)*

- [Fitness Slide show](http://www4.district125.k12.il.us/health/health/Exercise/sld001.htm) (<http://www4.district125.k12.il.us/health/health/Exercise/sld001.htm>)  
a downloadable slide show/powerpoint on physical fitness
- [How Stuff Works](http://health.howstuffworks.com/) (<http://health.howstuffworks.com/>)  
visuals, interactives & tutorials on diseases/conditions, drugs, fitness, health care, nutrition and the body
- [InSite Fitness](http://www.insitefitness.com.au/) (<http://www.insitefitness.com.au/>)  
fitness testing, health tips & visually oriented lessons
- [Shape Up. Org's Body Fat Lab](http://www.shapeup.org/bodylab/frmst.htm) (<http://www.shapeup.org/bodylab/frmst.htm>)  
basic information, health risks, measurement tools (BMI, electrical impedance, skin fold, underwater, etc.)

### **Mental Health:**

- [Kids' Turn](http://www.kidsturn.org/kids/main.htm) (<http://www.kidsturn.org/kids/main.htm>)  
Q/A, activities, articles about kids and divorce, and the problems that can arise
- [LUDA Education Foundation](http://www.ludavhs.org/foundation/health/l1/p1.jsp) (<http://www.ludavhs.org/foundation/health/l1/p1.jsp>)  
demo lessons on self-esteem awareness, mental health, personality, emotions & stress
- [TeensHealth – Your Mind](http://kidshealth.org/teen/your_mind/) ([http://kidshealth.org/teen/your\\_mind/](http://kidshealth.org/teen/your_mind/))  
mental health, stress, moods, disorders
- [University of Alberta Health Center \(Students & Stress\)](http://www.ualberta.ca/HEALTHINFO/) (<http://www.ualberta.ca/HEALTHINFO/>)  
free interactive standalone program with Inventories

### **Neurological Issues:**

- [Brain Connection](http://www.brainconnection.com/topics/?main=anim/lobes): (<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): ([http://www.girlzone.com/quizzler/BrainanaSplit2\\_qu.html](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/neurok.html>) &  
(<http://faculty.washington.edu/chudler/chgames.html>) experiments, lesson plans, activities & brain games
- [NOVA Online](http://www.pbs.org/wgbh/nova/coma/): (<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
- **Think Quest: Sighting the First Sense:** ([http://library.thinkquest.org/C001464/cgi-bin/view.cgi?show\\_item=perception](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
- **Virtual Body at MEDtropolis:** (<http://www.medtropolis.com/VBody.asp>) animations and tours of the Human Brain, Skeleton, Human Heart, Digestive System

### **Nutrition:**

- **3 Fat Chicks.com** (<http://www.3fatchicks.com/food>) fast food guide, calorie counters, calculators
- **Dying to Be Thin by PBS** (<http://www.pbs.org/wgbh/nova/thin/>) video clips, real stories about eating disorders and societal pressures
- **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** (<http://www.ualberta.ca/HEALTHINFO/>) Munchies: Eating Well on a Student Budget: free interactive standalone program with Inventories

### **Reproductive Health Concepts & Issues:**

- **AIDS WebQuest** (<http://haworth.org/wqaids.html>) a webquest activity with numerous resources and links
- **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** (<http://www.ualberta.ca/HEALTHINFO/>) AIDS; STDs; Birth Control; Sexual Decisions: 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

### **Respiratory Health Issues & Smoking:**

- **American Lung Association** ([http://www.lungusa.org/resp\\_fl/lungsfinal.html](http://www.lungusa.org/resp_fl/lungsfinal.html)) interactive views of how the respiratory system works
- **Chest X-Ray.com** (<http://www.chestx-ray.com/Lectures/SmokeWeb/NavigationSmoke.html>) interactive, visual slide show of "What Happens to the Puff?"
- **LUDA Education Foundation** (<http://www.ludavhs.org/foundation/health/l2/p1.jsp>) demo lessons on respiratory system

- [Virtual Children's Hospital: Picture This...Don't Smoke](http://www.vh.org/pediatric/patient/cancercenter/smokingteens/index.html)  
(<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) (<http://www.bam.gov/survival/kabam.htm>)  
cool interactive comic strip creator for stress at school, friendships, coping with family problems
- [Kids Turn](http://www.kidsturn.org/kids/main.htm) (<http://www.kidsturn.org/kids/main.htm>)  
Q & A, articles, artwork and games on emotions, feelings, family relationships, divorce
- [TeenHealthFX](http://www.teenhealthfx.com/) (<http://www.teenhealthfx.com/>)  
FAQs, online quizzes and articles about numerous teenage health issues

### **Tutorials & Slide Shows:**

- [BBC Interactive Body](http://www.bbc.co.uk/science/humanbody/) (<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)  
(<http://www.hhmi.org/biointeractive/neuroscience/animations.html>)  
neuroscience, cardiovascular & infectious disease lectures, virtual labs, animations & games
- [Breast Self Exam](http://www.komen.org/bse/) (<http://www.komen.org/bse/>)  
early detection, video guide and self quiz
- [Chest X-ray.com](http://www.chestx-ray.com/Education/Education.html) (<http://www.chestx-ray.com/Education/Education.html>)  
anatomy & physiology tutorials; animated diagrams, slide shows on smoking, cancer screening, chest trauma, C-V disease
- [CPR](http://depts.washington.edu/learncpr/index.html) (<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) (<http://www.childrenheartinstitute.org/educate/murmur/murmur.htm>)  
heart murmur sounds
- [Dairy Council of CA](http://www.dairycouncilofca.org/activities/index.html) (<http://www.dairycouncilofca.org/activities/index.html>)  
food pyramid game, pizza maker, fitness planners, nutrition quizzes, activity calculator
- [Mayo Clinic Slide Show Tutorials](http://www.mayoclinic.com/programsandtools/slideshows.cfm) (<http://www.mayoclinic.com/programsandtools/slideshows.cfm>)  
electroconvulsive therapy, cardiac rehab, congenital heart defects, anatomy, wt. lifting techniques, stretching exercises, digestion, "secret life of the heart" slide show, fitness level slide show; cardiac rehab slide show; serving size slide show
- [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 and stroke  
([http://a1977.g.akamai.net/f/1977/1448/1d/webmd.download.akamai.com/1448/CAD\\_animated\\_cons/what.html](http://a1977.g.akamai.net/f/1977/1448/1d/webmd.download.akamai.com/1448/CAD_animated_cons/what.html))
- [MedLine Plus](http://www.nlm.nih.gov/medlineplus/tutorial.html) (<http://www.nlm.nih.gov/medlineplus/tutorial.html>)  
over 165 interactives and tutorials
- [NY Times Learning Network](http://www.nytimes.com/learning/general/subjects/science_index.html) ([http://www.nytimes.com/learning/general/subjects/science\\_index.html](http://www.nytimes.com/learning/general/subjects/science_index.html))  
lesson plans, news, online crossword puzzles
- [University of Minnesota – Twin Cities](http://webhome.crk.umn.edu/~dlim/itc/interactives.asp) (<http://webhome.crk.umn.edu/~dlim/itc/interactives.asp>)  
Flash / animated learning games on disease, epidemic, food science, nutrition & safety



## **Wellness & Health Care:**

- **CPR Training** (<http://www.emergencytraining.ie/ecpr.htm>)  
CPR steps and procedures
  - **Community Health** (<http://www.jbpub.com/communityhealth/4e/flashcards.cfm>)  
web exercises, glossary and interactive flash card reviews
  - **First Aid Action** ([http://www.bbc.co.uk/health/first\\_aid\\_action/](http://www.bbc.co.uk/health/first_aid_action/))  
interactive presentation of information, virtual scenarios & tests on First Aid, caring for children and caring for adults
  - **Green Squad:** Natural Resources Defense Council (<http://www.nrdc.org/greensquad/>)  
interactive "tour" and hunt for environmental health hazards encountered at a typical school, with a downloadable worksheet
  - **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](http://www.cbc.ca/natureofthings/toxic_flash/toxic_house_flash.html))  
room by room interactive descriptions of indoor pollution – synthetic and organic sources
  - **WebMD's Find a Doctor** (<http://my.webmd.com/pages/dir/toc.asp>)  
a database of general practitioners or specialists
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## **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?*
- *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 Univ. (*which is available at <http://www.engr.ncsu.edu/learningstyles/ilsweb.html>*), So. Oklahoma State Univ., and the Univ. 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."*

