

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 PSAHPERD Convention 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 | • Nutrition |
| • Calculators & Tools | • Reproductive Issues |
| • Cardiovascular | • Respiratory Health |
| • Drug & Alcohol | • Social |
| • Fitness | • Tutorials |
| • Mental Health | • Wellness |
| • Neurological Issues | |

HIGHLIGHTS:

Anatomy & Physiology:

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

3-D model of human anatomical parts

- Anatomy Tutorial (<http://www.scoi.com/anat.htm>)

excellent visuals of the various skeletal components

- 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>)

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

+ [The Virtual Body by Medtropolis](http://www.medtropolis.com/VBody.asp) (<http://www.medtropolis.com/VBody.asp>)
human brain, (build a) skeleton, heart and (organize your organs) digestive tract; listen to narrated neurons!

+ [Virtual Knee Surgery](http://www.edheads.org/activities/knee/) - Edheads / COSI (<http://www.edheads.org/activities/knee/>)
be a cyber surgeon for a total knee replacement surgery!

+ [Web Anatomy](http://www.gen.umn.edu/faculty_staff/jensen/1135/webanatomy/wa_cvs/) (Univ. of Minn.) (http://www.gen.umn.edu/faculty_staff/jensen/1135/webanatomy/wa_cvs/)
interactive / visual review of c/v, respiratory, endocrine, skeletal, muscular, nervous, reproductive & digestive systems



Calculators & Tools:

• [Calorie Chart Index](http://www.diet-i.com/calorie_chart/) (http://www.diet-i.com/calorie_chart/)
calories & fats in foods by categories

+ [Calories per Hour.com](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) 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

• [Bodies in Motion](http://library.thinkquest.org/12153/fit.html) - Minds at Rest Thinkquest “Are You Fit?” (<http://library.thinkquest.org/12153/fit.html>)
personal profile for activity levels, caloric needs

+ [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

• [Nutrition Analysis Tools & System](http://nat.crgq.com/energy/daily.html) (<http://nat.crgq.com/energy/daily.html>)
interactive energy calculator

+ [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 Lab; 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

• [Coronary Surgical Procedures](http://www.hgcardio.com/procedures.htm) (<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) (<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) (<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) (<http://www.heartpoint.com/gallery.html>)

• **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>)
Dr. Arthur O. Sclerosis's interactive game show style review

+ **LUDA Education Foundation** (<http://www.ludavhs.org/foundation/health/l2/p1.jsp>)
demo lessons on respiratory system, structures & disorders; blood vessels & lymphatic system

• **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!

• **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 health care, 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:

+ **Chemicals in Cigarettes** (<http://www.quia.com/jg/72157.html>)
interactive matching, flashcards, "Concentration" game and word search

+ **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

• **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/>)

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

- 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:

- It's My Life by PBS (<http://pbskids.org/itsmylife/>)

kids talk about friends, family, school, their bodies, emotions, and money

- Kids' Turn (<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>)

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

- + Brains Rule: (<http://www.brainsrule.com>)

interactives, games; memory, anatomy & physiology, development & disorders

- 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/cgibin/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

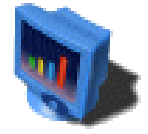
Nutrition:

- + 3 Fat Chicks.com (<http://www.3fatchicks.com/>)

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

Nutrition:

+ [3 Fat Chicks.com](http://www.3fatchicks.com/) (<http://www.3fatchicks.com/>)
fast food guide, calorie counters, calculators



• [Dying to be Thin - PBS](http://www.pbs.org/wgbh/nova/thin/) (<http://www.pbs.org/wgbh/nova/thin/>)
video clips, real stories about eating disorders and societal pressures

+ [Eating Disorders: Fear and Loathing in the Mirror - Body Icon](http://nm-server.jrn.columbia.edu/projects/masters/bodyimage/toc.html)
(<http://nm-server.jrn.columbia.edu/projects/masters/bodyimage/toc.html>)
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) (<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)
(<http://www.manteno.k12.il.us/webquest/high/Science/StrengthNutrition/strength.htm>)
an Internet project challenging students to create and design a diet and exercise program for a virtual client

• [University of Alberta Health Center \(Munchies: Eating Well on a Student Budget\)](http://www.ualberta.ca/HEALTHINFO/)
(<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) (<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/) (<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/) (<http://www.ualberta.ca/HEALTHINFO/>)
free interactive standalone program with Inventories

+ [What About AIDS?](http://www.nyhallsci.org/whataboutaids/main.html) (<http://www.nyhallsci.org/whataboutaids/main.html>)
background material, FAQs, protection methods, treatments, stories

+ [X-Plain.com at MedlinePlus](http://www.nlm.nih.gov/medlineplus/tutorials/sexuallytransmitteddiseases.html) (<http://www.nlm.nih.gov/medlineplus/tutorials/sexuallytransmitteddiseases.html>)
interactive presentation of STDs, symptoms, diagnosis, treatments & prevention; over 165 other interactive tutorials at
(<http://www.nlm.nih.gov/medlineplus/tutorial.html>)

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

• [Asthma Tutorial](http://www.people.virginia.edu/~smb4v/tutorials/asthma/asthma1.html) (<http://www.people.virginia.edu/~smb4v/tutorials/asthma/asthma1.html>)
tutorial explaining the what, why & how; video animation, audio file of asthma

+ [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

• [Chest X-Ray.com](http://www.chestx-ray.com/Lectures/SmokeWeb/NavigationSmoke.html) (<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)
(<http://www.vh.org/pediatric/patient/cancercenter/smokingteens/index.html>)
interactive teenage bodies depicting health risks of smoking

Social Health:

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

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 Assault Quiz** (http://pcar.org/about_sa/quiz.html)
interactive quiz

• **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

• **Breast Self Exam** (<http://www.komen.org/bse/>)
early detection, video guide and self quiz

• **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

+ **CPR Training** (<http://www.emergencytraining.ie/ecpr.htm>)
CPR steps and procedures

• **Childrens' Heart Institute** (<http://www.childrenheartinstitute.org/educate/murmur/murmur.htm>)
heart murmur sounds

+ **Emedicine.com: CPR** (<http://www.emedicine.com/aaem/topic93.htm#target1>)
instructional steps, photos & sound; CPR, rescue breathing, chest compressions

• **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

• **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

• **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:

- + Green Squad: Natural Resources Defense Council (<http://www.nrdc.org/greensquad/>)
interactive "tour" and hunt for environmental health hazards encountered at a typical school; downloadable worksheet
- Mayo Clinic Slide Show Tutorials (<http://www.mayoclinic.com/programsandtools/slideshows.cfm/>)
slide show on mental sharpness for senior citizens
- + NIH Life Works Health & Science Careers (<http://science.education.nih.gov/LifeWorks.nsf/feature/index.htm>)
explore careers, stories from real people in today's medical fields
- 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?*
- *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