# RAY "TREY" W. BROWN, PhD April 2023

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# **EDUCATION**

PhD Environmental Toxicology Clemson University, Clemson SC May 1997

BS Biology

Christian Brothers University, Memphis, TN May 1991 Honors: Summa cum laude

BA Music Theory

University of Notre Dame, Notre Dame, IN May 1989 Honors: Cum laude

# PROFESSIONAL EXPERIENCE

Science Teacher 2021 – Present

Highland Park High School, Dallas, TX

Classes Include: 10th grade Chemistry (Enrollment: 201)

Aquatic Science (Enrollment: 84)

Homeschool Teacher (Second Grade) 2020 – 2021

Dallas, TX

Science Teacher 2020 – 2020

CityLab High School, Dallas, TX

Lecturer 2014 – 2020

Department of Environmental Science,

Baylor University, Waco, TX

Classes Include: Introduction to Environmental Issues;

Introduction to Environmental Health:

Individual Research Problems;

Heavy Metals and Global Public Health; Environmental Capstone.

Secondary Science Teacher 2012 - 2014Uplift Education, Dallas, TX Faubion Middle School, McKinney, TX Lowery Freshman Center, Allen, TX Faculty Associate 2011 - 2012Department of Earth & Environmental Sciences University of Texas - Arlington, Arlington, TX Research Assistant Professor 2005 - 2011Texas Tech University, Lubbock, TX Assistant Professor 2004 - 2005Xavier University of Louisiana, New Orleans, LA Senior Lecturer 2002 - 2004& Post-Doctoral Research Associate Richmond Univ., Southbank Univ., King's College London, UK 1999 - 2001Asst. Professor Director Environmental Science & Technology Program Christian Brothers University, Memphis, TN **Environmental Consulting Experience** Owner and Training Program Manager 2009 - 2015Renovate Smart Lead Training LLC, McKinney, TX Senior Toxicologist 1998 MEC Analytical Systems, Inc, Tiburon, CA **Environmental Toxicologist** 1997 Tetra Tech EM Inc., San Francisco, CA Coastal Resource Coordinator, EPA Region IV 1993 - 1994National Oceanic & Atmospheric Administration, Atlanta, GA Graduate Research Experience Graduate Research Assistant 1995 - 1997Department of Environmental Toxicology, Clemson University, Pendleton, SC Graduate Research Assistant 1991 - 1992Dept. of Env. Toxicology, Memphis State University, Memphis, TN

## TEACHING SUPPORT AND EDUCATION RESEARCH ACTIVITIES

- La Fiesta Teacher Innovation Grant, 2023
- La Fiesta Teacher Innovation Grant, 2022
- Successful completion of the College Board Endorsed AP Summer Institute 45-hour AP program in Environmental Science. 2021
- Participant in the Student Resistance to Active Learning in Undergraduate STEM Research Project. Baylor University. October 21, 2019.
- Participant in Active Learning for Busy Skeptics and True Believers workshop. University of Texas, Austin, TX. May 31, 2019.
- Participant in the Five-week Baylor University Summer Faculty Institute. May 26 – June 26, 2015.
- Participant in a Course Portfolio Workgroup, Xavier University of Louisiana, 2004 2005.
- Finalist Judge for the Mid-South Regional Science Fair for High School Students. April 2001.
- Presentation at the 25<sup>th</sup> Annual Tennessee Association of Middle Schools conference, June 25, 2001 Gatlinburg, TN titled "Using Environmental Science to Support Education Standards."
- Consultant to the Environmental Education steering committee of the Memphis City School System's Memphis Urban Systemic Program (MUSP) in 2002. The MUSP was one of 22 programs funded nationwide by the National Science Foundation (NSF) to increase student achievement in mathematics, science, and technology in all schools.
- Participant in a study on teaching methods and effectiveness conducted by the CBU Department of Education during BIOL302 Environmental Toxicology conducted Summer 2000. Results presented at the 1<sup>st</sup> Annual Teaching Conference at Christian Brothers University, August 20<sup>th</sup>, 2000.
- Membership on the Education Committee of the Society of Environmental Toxicology and Chemistry, 2000 2002.

# TEACHING PHILOSOPHY

The picture of the scientist tirelessly working away in their laboratory is outdated and has been replaced by the relationship between mentor and assistant. Real scientific progress emerges from the relationship between mentor and student. I owe my successes to the scientists who came before me and who shared their education, skills, and insights with me. I believe in the power of education and the integrated process of learning—both lay at the heart of my teaching philosophy. My overall teaching philosophy is simple:

To teach students to use the scientific method in all that they do, whether it is understanding basic principles, carrying out a laboratory investigation, or pursuing personal, outside interests.

The classroom becomes a place of learning, discovery and inspiration; as opposed to a place of information exposure.

The laboratory becomes, a place of inquiry and explanation, as opposed to one of activity and result.

I let this philosophy guide my preparation of classroom materials, lectures, and labs. I seek to develop education standards that move students from content-based memorization to critical thinking and problem-solving approaches. These "innovative" ways of teaching are really just a reflection of mentored research methods—tried and true methods of the scientist. I am always striving to integrate these ideas into my classroom.

## RESEARCH INTERESTS

Childhood lead (Pb) poisoning is the most prevalent and devastating environmental health disease in the United States today. My research activity involves sampling urban environments for Pb and using geospatial assessments of the urban Pb contamination to help calculate risk to the children who live in these effected areas. Unfortunately, our early results show that most if not all high-risk children are found in , neighborhoods dominated by poor, minority populations. This research is critical for continued environmental justice outreach for the vulnerable populations that live in these communities.

## **PUBLICATIONS**

- **Brown RW**, L.Yu Lin, (CBU, Civil Engineering), Cathy Parker Ed.D. Presentation at the 21<sup>st</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC), November 12 16, 2000, Nashville, TN title "Integrating Environmental Science Issues into Science Curricula".
- **Brown RW**, C. Parker, Ed.D. (CBU) titled "Design and Implementation of an Environmental Science Education Workshop" at the 21<sup>st</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC), November 12-16, 2000, Nashville, TN.
- Presley SM, MT Abel, GP Austin, TR Rainwater, RW Brown, LN McDaniel, EJ Marsland, AM Fornerette, ML Dillard, RW Rigdon, RJ Kendall, GP Cobb. 2010.
   Metal concentrations in schoolyard soils from New Orleans, Louisiana before and after Hurricanes Katrina and Rita. *Chemodynamics*. 80: 67-73. Doi: 10.1016/j.chemosphere.2010.03.031
- **Brown RW**. 2010. Truths about lead paint. In League: The Magazine of The Junior League of Lubbock. 4/3: 6-7.
- 6. **Brown RW**, T Longoria. 2009. Multiple risk factors for lead poisoning in Hispanic sub-populations: A Review. *Journal of Immigrant and Minority Health*. 12: 715-725. Doi: 10.1007/s10903-009-9245-8
- Brown, RW, C Gonzales, MJ Hooper, AC Bayat, AM Fornerette, TJ McBride, T Longoria, HW Mielke. 2008. Soil lead (Pb) in residential transects through Lubbock, Texas: A preliminary assessment. *Environmental Geochemistry & Health*. 30: 541-547. Doi: 10.1007/s10653-008-9180-y
- Chung MJ, PA Walker, **RW Brown**, C Hogstrand. 2005. ZINC-mediated gene expression offers protection against H2O2-induced cytotoxicity. *Toxicology and Applied Pharmacology*. 205: 225-236.
- **Brown RW**. 2001. Environmental Education in the Mid-South. *The Tennessee Conservationist*. Vol. LXVII, No. 3.
- Benjamin, R, R Brown, M Fraizer, B Joab, R Casey and S Klaine. 1998. Algal growth rate fluctuations observed under uniform ambient test conditions using static and semicontinuous assay techniques. *Environmental Toxicology and* Chemistry. 17: 460-467.

Klaine, SJ, P Richards, D Baker, R Naddy, **T Brown**, B Joab, R Casey, D Fernandes, J Overmeyer and R Benjamin. 1996. Environmental behaviour of crop protection chemicals. *Proceedings of an International Symposium on the Use of Nuclear and Related Techniques for Studying Environmental Behaviour of Crop Protection Chemicals*. International Atomic Energy Agency and the Food and Agriculture Organization of the United Nations, July 1-5, 1996, Vienna, Austria.

## RESEARCH SUPPORT

- Baylor University Undergraduate Research Committee. Principal Investigator.
   January May 2019. \$1,500. Childhood Lead (Pb) Exposure: An Examination of the Geospatial Distribution of Environmental Soil Pb in Two Urban Areas.
- Baylor University, Department of Environmental Science. 2017. \$14,198. Residual soil lead (Pb) in an urban, residential neighborhood in West Dallas affected by historic Pb Smelter activities. Special equipment request.
- Baylor University Undergraduate Research Committee. Principal Investigator.
   January May 2015. \$4,500. Residual soil lead (Pb) in an urban, residential neighborhood in West Dallas affected by historic Pb Smelter activities
- Junior League of Lubbock. Project Director. 2010. **\$3,300**. Preventing and Reducing Childhood Lead Poisoning in Lubbock County.
- U.S. Environmental Protection Agency. Principal Investigator. January 2009 –
   June 2010. \$226,250. Lead (Pb) Poisoning Prevention & Reduction through
   Outreach & Training of Clinicians & Labor Specialists in Hispanic Communities.
- National Institutes of Health. Co-Investigator. 2008-2013. **\$1,080,000.** *Plains Bridges to the Baccalaureate Program* was awarded to encourage historically underrepresented student groups at South Plains College to pursue a degree in science at Tech. Principal Investigator: Jaclyn Cañas, Ph.D. Co-Investigators: Stephen Cox, Ph.D., John Zak, Ph.D., Jorge Salazar-Brav, Ph.D., Juan Muñoz, Ph.D., and Zenaida Aguirre-Muñoz, Ph.D., Jay Driver, Ph.D., and Philip Anderson Ed.D.
- Howard Hughes Medical Institute Special Sabbatical Program. Principal Investigator. 2005 - 2006. \$50,000. Determination of historical soil lead contamination in curbside soils in Lubbock, TX.
- Bush-Hewlett Foundation. Principal Investigator. 2005. **\$7,700**. *Toxicology of Metals: An Undergraduate Research Community*. Co-investigator: Howard Mielke.
- Center for Undergraduate Research, Xavier University of Louisiana. Principal Investigator. 2005. \$10,000. Establishment of Snails as Sentinel Species in Coastal Areas in Southern Louisiana.

- Andrew W. Mellon Foundation. Project Director. 2005. **\$2,000.** Environmental Infusion Grant for *Infusion of Environmental Science into Genetics*.
- Assisi Foundation. Christian Brothers Environmental Science and Technology
  Director. 2000 \$75,000. Part of the Shaping Science Education for the Future Grant
  awarded to Christian Brothers University's School of Sciences.
- Christian Brothers University Faculty Development Grant 2000. \$2,500
   Development of three new courses at CBU in Environmental Chemistry,
   Ecotoxicology and Environmental Sampling Methods.
- Eisenhower Professional Development Program. Project Director. 1999. \$25,000.
   Integrating Environmental Science into Science Curriculum: Training Thirty
   Memphis and Shelby County Teachers (8-12) in Classroom and Laboratory
   Methods that Address Critical Environmental Issues.

#### INVITED PRESENTATIONS

- Brown, RW. 2017. "Childhood Lead Poisoning: Misconceptions and New Realities."
   Presented to the Baylor University Tri-Beta student organization, October 23, 2017.
- **Brown, RW**. 2016. ""Residual Soil Lead (Pb) in an Urban, Residential, Neighborhood in West Dallas Affected by Historic Pb Smelter Activities" Presented at the Montana Environmental Health Conference, Helena, MT, September 27, 2016.
- **Brown, RW**. 2015. "What is the Matter with the Mad Hatter." Presented at the 2015 Baylor Libraries Symposium, Waco, TX, October 9, 2015.
- **Brown, RW**. 2015. "Environmental Lead Exposure." Presentation at the 9<sup>th</sup> Annual Health Research Forum, Family Health Center, Waco, TX, April 21, 2015.
- **Brown, RW**. 2010. "Grasshoppers, Dust, and Salsa An Old Toxin in a New Setting". Presentation at the The Migrant Experience Impact on Communities in the South Plains at the International Cultural Center/TTU, Lubbock, Texas, April 8<sup>th</sup>, 2010.
- **Brown, RW**. 2010. "Early Childhood Lead Poisoning and Crime". Presentation to the Lubbock County Young Lawyer's Association, January 8, 2010.
- **Brown, RW**. 2009. "Childhood Lead Poisoning: Myths, Misconceptions and New Realities". Presentation to The Junior League of Lubbock, Inc., September 8, 2009.
- **Brown, RW**. 2009. "Environmental Lead, Lead Poisoning and At-risk Populations". Presentation to the South Texas Environmental Education and Research program at the UT-San Antonio Health Science Center, Harlingen campus. April 24, 2009.

- **Brown, RW**, C Gonzales, AC Bayat, AM Fornerette, TJ McBride, MJ Hooper, T Longoria, HW Mielke. 2008. "Community-Level Risk Factors for Childhood Lead Exposure in Urban and Rural Areas" presented to The Institute of Environmental and Human Health, Texas Tech University, October 6, 2008, Lubbock, TX.
- **Brown, RW**, T Longoria. 2008. "Preventing Lead Exposure At Work and Home" presented at the annual Delta Association for Rural Initiative conference, June 10-11, New Orleans, LA.
- **Brown, RW**, C Gonzales, AC Bayat, AM Fornerette, TJ McBride, MJ Hooper, T Longoria, HW Mielke. 2007. "Environmental lead (Pb) sources and exposure pathways to children in urban areas." Presented to the Texas Tech University Child Development Research Center, March 7, 2008, Lubbock, TX.
- **Brown, RW**, C Gonzales, AC Bayat, AM Fornerette, TJ McBride, MJ Hooper, T Longoria, HW Mielke. 2007. "Environmental lead (Pb) sources and exposure pathways to children in urban areas." Presented at Texas Tech University Health Science Center Department of Pediatrics Grand Rounds, September 21, 2007, Lubbock, TX.
- **Brown, RW**, C Gonzales, AC Bayat, AM Fornerette, TJ McBride, MJ Hooper, T Longoria, HW Mielke. 2007. "Environmental lead (Pb) sources and exposure pathways to children in urban areas." Presented Presented to the Air and Waste Management Association High Plains Chapter November 1, 2007, Lubbock, TX.
- **Brown, RW**, C Gonzales, AC Bayat, AM Fornerette, TJ McBride, MJ Hooper, T Longoria, HW Mielke. 2007. "Residential soil lead (Pb) contamination in Lubbock Texas: Preliminary results" presented at the Urban Geochemistry and Health Conference of the Society for Environmental Geochemistry and Health, New Orleans, July 22-25, 2007, New Orleans, LA.
- **Brown, RW**. 2006. "Urban Lead and Human Health" presented to the Department of Environmental Toxicology, Texas Tech University, September 18, 2006, Lubbock, TX.
- **Brown, RW**. 2003. "Energy Use and Downstream Effects. Where Exactly Is Downstream?" presented at Richmond University, November 12, 2003, Richmond, UK.

## CONFERENCE AND SYMPOSIA PRESENTATIONS

- Noel, M, **RW Brown**. The Health Impact of Secondary Pb Smelter Sites on Children in the United States. Baylor McNair Research Conference. September 26, 2019, Baylor University, Waco, TX.
- DeNino, L., G Hutchinson, J. Frandesen-DeLoach, J. Salazar, C. Coneby, RW
   Brown. 2018. Preliminary Results of Residential Curbside Residual Lead in West Dallas, TX. Undegraduate Research and Scholarly Achievement (URSA) Scholars Week, March 26 29, 2018, Baylor University, Waco, TX.

- Biebas, SR, RW Brown. Residual soil lead (Pb) in an urban, residential neighborhood in West Dallas affected by historic Pb Smelter activities. NEHA 2016 AEC and HUD Healthy Homes Conference. June 13 – 16, 2016, San Antonio, TX.
- Biebas SR, ES Williams, RW Brown. Geospatial Distribution of Environmental Soil (Pb) in Two Urban Areas. Undergraduate Research and Scholarly Achievement Scholars Week, March 30 – April 2, 2015, Baylor University, Waco, TX. (Poster received 1<sup>st</sup> place award in its category).
- Hunt A, RW Brown, DS Alkandary. Reduction of Lead Paint Bioavailability in Soil through Addition of Apatite II. International Conference on Environmental Science and Technology 2012, June 25-29, 2012, Houston, TX.
- Hunt A, RW Brown, DS Alkandary. Apatite II Immobilization of Lead in Soil A
  New Orleans Field Trial. International Conference on Environmental Science and
  Technology 2012, June 25-29, 2012, Houston, TX.
- Hunt A, RW Brown, DS Alkandary. "Temporal Bioaccessibility of Pb in Soils Containing Old Pb-Based Paint Amended with Apatite II." 2011 Annual International Conference on Soils, Sediments, Water and Energy, October 17-20, 2011, University of Massachusetts, Amherst, MA.
- Ramos ZA, AL Rios, JC Cowling, JLR Jensen, AM Laughlin, T Longoria, RW Brown. "Childhood Lead Poisoning: An Examination of the Contribution of Environmental Soil Lead in Two Urban Areas." Presented at the 2010 National Conference of the Society for the Advancement of Chicanos and Native Americans in Science, October 15-18, 2009, Dallas, TX.
- Cowling, JC, RW Brown. 2009. "Bioaccessible Lead in the Paint Coatings of Children's Toys." Presented at the 2009 TTU Undergraduate Research Conference, April 3, 2009, Lubbock, TX.
- Cowling JC, JP Isanhart, RW Brown. 2008. "An assessment of lead contained in the coatings of Mardi Gras beads" presented at the 2008 TTU/HHMI Student Research Days, April 3-4, 2008, Lubbock, TX.
- R Brown, L Richmond, A Beeby. 2005. "Substitution of lead in biochemical processes relying on calcium" presented at a research forum at Southbank University, Fall 2005, London, UK.
- Chung, M, **R Brown**, P Walker, C Hogstrand. 2003 "Mechanism of zinc protection against reactive oxygen species in rainbow trout gill cells" presented at the 24<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC), November 9-13, 2003, Austin, TX.
- **Brown, RW**, PA Walker, C Hogstrand. 2002. "Interactions among metals, water chemistry and toxicological responses in cell culture of gill tissue" presented at

- the 23<sup>rd</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC), November 16-20, 2002, Salt Lake City, UT.
- Balesaria, S, A Qui, P Walker, R Brown, C Glover, N Bury and C Hogstrand. 2002.
   "Genomics of metal uptake in fish" presented at the SENSPOL European Union Thematic Network Response to New Pollution Challenges Workshop, June 4-7, 2002, London, UK.
- Walker, P, R Brown, A Qui, S Balesaria, C Glover, N Bury and C Hogstrand. 2002.
   "Development of a fish gill cell based biosensor for aquatic pollutants" presented at the SENSPOL European Union Thematic Network Response to New Pollution Challenges Workshop, June 4-7, 2002, London, UK.
- Bury, N, P Walker, R Brown, A Qui, S Balesaria, C Glover, and C Hogstrand. 2002.
   "The use of the Biotic Ligand Model (BLM) to predict acute metal toxicity in aquatic environments" presented at the SENSPOL European Union Thematic Network Response to New Pollution Challenges Workshop, June 4-7, 2002, London, UK.
- **Brown, RW**. 1999. "Is Remediation Necessary? Risk-based Decision Making for Environmental Sites" presented at the first Memphis Area Engineering Societies Conference, MAESC '99. May 13, 1999, Memphis, TN.
- **Brown, RW**, TS Bernhard, BM Joab, JM Leather. "Toxicity of un-ionized ammonia to the development of the purple sea urchin, *Strongylocentrotus purpuratus*, and the sand dollar, *Dendraster excentricus*, in sediment pore water and elutriate bioassays" presented at the 19<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC), November 15-19, 1998, Charlotte, NC.
- Karen, DJ, RW Brown, BS Day, TW LaPoint, DR Ownby and DP Shupack.
   "Influence of various water quality parameters on toxicity and bioavailability of Ag\* to Rainbow Trout" presented at the 18<sup>th</sup> Annual Meeting of SETAC, November 6-10 1997, San Francisco, CA.
- **Brown, RW**, EA Crecelius, JQ Word, WW Johnson, GP Cobb, RL Dickerson and SJ Klaine. "Effects of the burrowing polychaete *Abarenicola pacifica*, on the distribution of methylmercury in marine sediments" presented at the 7<sup>th</sup> Annual Meeting of the European Society of Environmental Toxicology and Chemistry, April 6 10, 1997, Amsterdam, The Netherlands.
- **Brown, RW**, EA Crecelius, JQ Word, WW Johnson, GP Cobb, RL Dickerson and SJ Klaine. "The effects of the burrowing polychaete *Abarenicola pacifica*, on the transport of methylmercury in marine sediments" presented at the 17<sup>th</sup> annual meeting of SETAC, Nov. 17-21, 1996, Wash., D.C.
- Harrison, M, R Benjamin, R Brown, R Casey, B Joab, D Fernandes, J Overmeyer and S Klaine. "Intrinsic rates of algal population increase following 48 day pulsed atrazine exposures" presented at the 17<sup>th</sup> annual meeting of SETAC, November 17-21, 1996, Washington, D.C.

- Casey, R, R Benjamin, **R Brown**, M Fraiser and S Klaine. "Response of *Selenastrum capricornutum* growth rates to 32 day continuous atrazine exposure" presented at the 17<sup>th</sup> annual meeting of SETAC, November 17-21, 1996, Washington, D.C.
- Fernandes, D, M Harrison, R Benjamin, **R Brown**, R Casey, B Joab, J Overmeyer and S Klaine. "Intrinsic rates of algal population increases during 96 hour atrazine exposure and subsequent 96 hour recovery" presented at the 17<sup>th</sup> annual meeting of SETAC, November 17-21, 1996, Washington, D.C.
- Benjamin, RJ, RW Brown, R Casey, M Harrison, B Joab, D Fernandes, J Overmeyer and S Klaine. "Effects of long term pulsed atrazine exposure on *Selenastrum capricornutum* growth rates" presented at the 6<sup>th</sup> ASTM Symposium on Environmental Toxicology and Risk Assessment (ETRA): Modeling and Risk Assessment, April 14 18, 1996, Orlando, FL.
- Benjamin, RJ, RW Brown, R Casey, M Harrison, B Joab, D Fernandes, J Overmeyer and S Klaine. "Effects of chronic low level atrazine exposure on the growth of Selenastrum capricornutum populations" presented at the 6<sup>th</sup> ASTM Symposium on Modeling and Risk Assessment, April 14 - 18, 1996, Orlando, FL.
- Benjamin, RJ, RW Brown, R Casey, M Harrison, B Joab, D Fernandes, J Overmeyer and S Klaine. "Effects of acute atrazine stress and 96 hour recovery on algal populations" presented at the 6<sup>th</sup> ASTM Symposium on Environmental Toxicology and Risk Assessment: Modeling and Risk Assessment, April 14 18, 1996, Orlando, FL.
- Naddy, RB, RW Brown, JD Florian, Jr., HD Sutton, JE Warren, LA Williams and SJ Klaine. "Influence of sublethal herbicide burden in primary producers on herbivores and detritivores" presented at the 13<sup>th</sup> annual meeting of SETAC, November 8-12, 1992, Cincinnati, OH.

#### CURRENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Chemical Society

#### CURRENT RESEARCH EFFORTS

- 1) Childhood Blood Testing Rates, Blood Lead Effect Threshold and Public Policy: The Current Status of U.S. Lead Poisoning Prevention Efforts. This effort is an evaluation of nationwide blood testing rates and blood lead concentrations in light of recent advances in the determination of lead toxicity in children; all of which is placed into the context of state-based lead poisoning prevention policies and regulations.
- 2) Community-Level Risk Factors for Childhood Lead Exposure in Urban and Rural Areas

In this exploratory evaluation in Memphis, TN and West Dallas, TX, we are comparing environmental lead concentrations and elevated blood lead concentrations with community-level socio-demographic, economic and health care access statistics.

Partners include researchers from the University of Tennessee Medical School. Funding provided by The Urban Child Institute.

#### CURRENT SERVICE ACTIVITIES

- 1. Strategic Planning Committee to Eliminate Childhood Lead Poisoning: Vision of A Lead-Safe Texas by 2020, Member
- 2. I also support my wife in her volunteer efforts for Rainbow Days sponsored by Attorneys Serving the Community which is a program to help children who are homeless or in transitional housing situations as well as her pro bono assistance work for the Dallas Volunteer Attorney Program.

#### PAST AWARDS AND ACHIEVEMENTS

- GRE Biology Subject Exam: 97<sup>th</sup> percentile, 1995
- Associated Western Universities Fellowship recipient, 1995
- National Council of Garden Clubs fellowship alternate award, 1995
- "Commendable" performance rating at NOAA, 1993, 1994
- Notre Dame Scholar Award, 1985
- 2nd place Junior Division/Tennessee State Math Competition, 1983
- Eagle Scout, 1982