SAINT LOUIS PUBLIC SCHOOLS

REC'D DEC 1 1 1995

DAVID J. MAHAN
Superintendent of Schools
JOHN E. INGRAM, JR.
Associate Superintendent for Elementary,
Middle and Secondary School Education

OFFICE OF THE ELEMENTARY SCHOOL PRINCIPAL

Lafayette Elementary School
815 Ann Street
St. Louis, MO 63104

December 4, 1995

Mr. Stephen Henderson
Plant Manager
Monsanto Chemical Company
1700 South Second Street
St. Louis, MO 63177

Dear Mr. Henderson:

Enclosed is the Lafayette School's Science Proposal that we wish to submit for your approval relative to forming a partnership with your company. Please forgive our delay in submitting the proposal. We look forward to working with you in improving science instruction at the Lafayette School.

If there are any questions or concerns, please contact Dr. Sally Bloom, Instructional Facilitator or me at 771-8666.

Again, thank you for your interest in the success of our science education program.

Sincerely,

Betty J. Purnell

(Mrs.) Betty J. Purnell, Principal



DSW 135901

STLCOPCB4035870

SCIENCE PARTNERSHIP

PROPOSAL/MONSANTO

LAFAYETTE SCHOOL

ADMINISTRATORS

Mrs. Betty J. Purnell, Principal
Dr. Sally Bloom, Instructional Facilitator

SCIENCE COORDINATOR

Mrs. Constance Berry

DSW 135902

STLCOPCB4035871

SCIENCE EDUCATION PROPOSAL

LAFAYETTE SCHOOL

November, 1995

The Lafayette School, erected in 1906, is named after the well respected French soldier and statesman Marquis De Lafayette. The present K-5 facility is located at 815 Ann Street in the rich historical and cultural Soulard neighborhood It is encompassed by some of the finest tourist attractions, such as the Soulard Farmer's Market, an old French style farmer/vendor market place, the St. John Nepomuk Czechoslovakian Church, Anheuser-Busch Brewery with the Mississippi River and riverfront activities within walking distance

CURRENT USAGE

Lafayette School is an integrated site with 80% of the students bussed to school. Its multi-cultural student body is enhanced by an English as Second Language program There are approximately 75% black students and 25% from other ethnic groups. Enrollment has been affected by vigorously aggressive recruitment for the magnet programs; a change from K-8 to K-5; and the allure of interdistrict transfer; all accompanied by the reality of a declining school age population city-wide The enrollment for the 1994/95 school year was 520 students. The current enrollment for 1995-96 is 534.

The Lafayette School plant houses 18 regular classrooms, a three teacher special education unit, in addition to Art, Music, Physical Education and Esl clasrooms Additionally, early childhood programs include a Title I preschool,

DSW 135903

STLCOPCB4035872

Early Childhood Special Education Preschool and a Parents as Teachers Center. Concomitantly, services to improve attendance and achievement in reading and math are provided through the Title I Schoolwide Project which has experienced tremendous monetary cuts causing reduction of staff throughout the program. Support staff includes a part time counselor, social worker, speech therapist and psychological examiner.

IMPORTANCE OF SCIENCE EDUCATION

We hear over and over again about the importance of encouraging, implementing and sustaining science education in schools. The need for comprehensive integration of and focus on science components are essential so that our country can stay competitive with the rest of the world. Furthermore, we are bombarded with literature on how our schools and country as a whole are failing to meet this need. Many causes contribute to this, including teacher interest/training/ability, lack of materials, and the availability of support services to assist movement towards the integration of science across the curriculum, all of which impact science education at Lafayette School.

We appreciate the opportunity to join with Monsanto in a partnership to attempt to address these issues. Science education has languished as a poor cousin to the urgencies of teaching basic skills; reading, writing and mathematics. However, our focus is shifting from teaching these skills in isolation. This invitation to submit a proposal comes at a time when we are working towards integrating basic skills into a literacy centered, thematic approach, or which hands-on "science" activities are an integral part.

LAFAYETTE SCHOOL is not unique in its needs. When attempting to implement any new program such as a more comprehensive science focus, into the

current curricular structure, such particulars as levels of commitment, training for teachers, time and financial support, materials, and means of evaluation must always be addressed.

COMMITTMENT

Levels of commitment should be determined by the school and Monsanto. Time lines need to be developed, and expectations addressed and clarified. Each organization should provide a designated representative to coordinate efforts and provide for effective communication throughout the duration of this partnership

TRAINING

Training for teachers should address: need to develop a science "focus", a consciousness of the need to incorporate science activities on the part of the staff, an awareness of what comprises a science activity, re-labeling many of the activities which are now taking place, "how" to include science activities within a literacy centered approach, effective utilization of available materials, provision of centers, as well as teacher directed instruction. We need to develop a means of accessing and utilizing outside expertise to provide on-going support services

TIME AND FINANCIAL SUPPORT

We need on-going staff development activities, on a minimum of three to five on a yearly basis as well as attendance incentives to provide the type of training and experiences to prepare and encourage teachers to incorporate science activities into their teaching. We must reach those teachers who are reluctant about participating fully in the science experience.

We need a means of coordinating, creating and distributing units of study with materials available for use.

EVALUATION

Units of study and the effectiveness of their implementation will be monitored and evaluated on an on-going basis. Lesson plans will be written and monitored on a weekly basis. Lessons will be observed by both the principal and instructional facilitator. Workshops will be offered throughout the school year to continue to expand teacher awareness and expertise in the integration of science education into their classrooms.

MATERIALS

We need time, materials, expert consultation and financial support to develop units with a literacy centered approach including the incorporation of science study as well as provide additional materials and equipment/furniture for learning center exploration in individual classrooms. The following items have been identified as critical to the success of our program:

*IBM compatible computers with hard drive, modem, CD rom and laser printer, capable of Internet access (2 per classroom)
*Funding to maintain Internet access and computer maintenence
*Software for computers
*Magnets- all sizes (315-15 per classroom)
*Magnet discovery kit (8-1 per level)
*Science fair boxes (48)
*Lighted microscopes with covers (12 resource center)
*Prepared and unprepared slides (100 each resource center)
*Pulleys and cord (8-1 per level)
*Thermometers for measuring room, outdoor and water temperatures(21-1 per class-total 21)
*Magnifying glasses (315-15 per classroom)
*Weather Kit- including instruments such as barometer, wind vane, wind charts, etc. (8-1 per level)
*Solar System Model (8-1 per level)
*Scales with weights - metric and standard (126-6 sets per classroom)
*Spring scale that weighs up to 25 lbs. (2-resource center)
*Measuring sets - liquid and dry measurement, standard and metric containers and cups (21-1 per classroom)
*Eye droppers (315-15 per classroom)
*Prisms and experiment guides (8-1 per level)
*Safety glasses (60 resource center)

*Metric rulers (15 per classroom)
*Goggles (60 resource center)
*Beakers- several sizes (30 each size resource center)
*Test Tubes and test tube racks (8-1 per level)
*Compasses (21-1 per classroom)
*Flashlights (21-1 per classroom)
*Batteries - all sizes ( all sizes, as many as possible)
*Wire (8 spools - 1 per level)
*Small flashlight bulbs (30 resource center)
*Any classroom science kits (21-1 per classroom)
*Funnels (21-1 per classroom)
*Mirrors (315-15 per classroom)
*Hot plates, or something to heat water in(8-1 per level)
*Litmus paper (8-1 per level)
*Tuning forks (1 set resource center)
*Aquariums (21-1 per classroom)
*Iodine (21-1 bottle per classroom)
*Modeling clay (75-5 packs per room)
*Science videos (15 resource center)
*Science experiment resource books (25 resource center)
*Butterfly larva kit and nursery, with extra caterpillars (8-1 per level)
*Ant farm (8-1 per level)
*Wheels and axles (8-1 per level)
*Conductors (8-1 per level)
*Root View Farms (8-1 per level)
*Candles (50 resource center)
*Science games (21-1 per classroom)
*Sets of fossils(8-1 per level)
*Rock sets(8-1 per level)
*Classroom incubator(1 resource center)

DSW 135907