

Science Education Partnership

# Nineteenth Annual Report

July 1, 2010 to June 30, 2011



*A better world through "Hands-on, Minds-on" science education*



## 2010-2011: A Summary

### *Mission*

We are a partnership dedicated to supporting the elementary school science program and teachers who inspire knowledgeable, creative, and responsible students.

### *Vision*

A better world through “Hands-on, Minds-on” science education.

### *Focus Areas*

- ✦ Science Kits ✦ Adopt-a-Scientist Volunteer Program ✦ Innovative Science Support Linking School and Community ✦ Partners ✦ Science Resource Centres

### *Key Achievements 2010-2011*

- SEP science kits were used 1,281 times, directly impacting over 22,000 students.
- One new science unit was created: Grade 1 *Needs and Characteristics of Living Things*. Sixteen copies of each will be in circulation in the fall of 2011.
- Curriculum teams continued to search for new materials to close gaps in existing science kits so they more closely match the Revised Science and Technology Curriculum which was released in December 2007. The Junior team specifically addressed the Grade 6 *Electricity* kit.
- Intermediate curriculum members worked on revising the Gr. 8 *Water Systems* kit.
- Adopt-a-Scientist Volunteer help was requested 129 times by 72 teachers in 33 different schools. Seventeen volunteers filled these requests. The group welcomed 4 new volunteers.
- Twenty-eight classrooms, totaling an estimated 700 students, participated in the *Engineering Month*, “Engineer for a Day” activity presented by local volunteers from the Professional Engineers of Ontario. A well-attended culminating bridge testing session was held at Lambton College on March 26th.
- Promotional activities were organized, including an SEP information booth at both the Sarnia-Lambton and the Chatham-Kent Regional Science Fairs. A science activity booth was set up and run by Adopt-a-Scientist Volunteers at the City of Sarnia children’s festival, “Kids Fun Fest”.



### *Looking Ahead to 2011-2012*

In 2011-2012, the Science Education Partnership looks forward to its nineteenth year of providing teachers and students with the resources required for “Hands-on, Minds-on” science education.

The curriculum teams continue to embrace the challenge of aligning all SEP resources and programs with the Revised Ontario Science and Technology Curriculum. This will ensure that teachers have the necessary materials to approach their science units in a “Hands-on, Minds-on” manner, as well as helping them to address the newer environmental aspects of the curriculum and integrate science with other subject areas. Adopt-a-Scientist volunteers will continue to adjust their classroom presentations to reflect the changes in this curriculum and create new interactive demonstrations. The SEP Steering Team will begin to formulate a new strategic five year plan. Together, we will continue to strive to spark an interest and a deeper understanding of science and technology in our students.



*Table of Contents*

2010-2011 Summary .....	1
Introduction .....	3
Five Year Plan: Mission Elements .....	4
Overall Effectiveness Summary .....	9
Appendix A: History of the Science Education Partnership.....	11
Appendix B: Strategic Plan 2007-2012.....	14
Appendix C: Teachers per school vs. Teachers participating at each school .....	15
Appendix D: Booking by Kit Title.....	17
Appendix E: Adopt-a-Scientist Objectives and Members.....	18
Appendix F: Financial Report.....	19
Appendix G: Science Education Partnership Steering Team 2010-2011.....	20



## *Introduction*

The Science Education Partnership (SEP), formed in 1992, consists of the Lambton Kent District School Board (LKDSB), the St. Clair Catholic District School Board (SCCDSB), local businesses, industries, and community partners. Appendix A details an historical time line of this unique partnership.

The SEP was formed for the purpose of expanding and supporting a quality “Hands-on, Minds-on” science program for students from Kindergarten to Grade 8. All science education programs made available for teachers through the SEP provide students with learning opportunities that develop and encourage collaboration, creativity, problem solving, and science literacy through the use of hands-on materials. It is recognized that these skills ultimately help our students to become more responsible and more successful adults in the working community.

Science Education Partnership activities are guided by a five year strategic plan that provides direction in reaching the goals encompassed in our mission statement – *We are a partnership dedicated to supporting the elementary school science program and teachers who inspire knowledgeable, enthusiastic and responsible students.* The five year strategic plan that will provide guidance through June of 2012 is outlined in Appendix B.

The Partnership focus is categorized in five areas.

➤ *Science Kit Program*

Science kits that contain hands-on materials and resources are developed to support the grade level expectations as described in the “Ontario Curriculum, Grade 1-8, Science and Technology (Revised 2007)”. Curriculum Teams will continue to realign existing kits to this revised document throughout the 2011-2012 school year.

➤ *Adopt-a-Scientist Volunteer Program*

Volunteers, with a science, engineering, or technical background, develop grade appropriate, curriculum-linked, interactive, scientific demonstrations for students.

➤ *Innovative Science Supports Linking School to Community*

The SEP organizes additional science education programs that celebrate and promote science and technology learning within our schools. These activities also facilitate the connection between community and business resources and educators.

➤ *Partners*

SEP business and community partners have strongly supported the SEP through both financial and human resources over the past 16 years. This support is invaluable as provincial funding is insufficient for schools to purchase all the science equipment that is required. The SEP continually seeks expansion through partner recruitment efforts and emphasizes partner recognition in all activities.

➤ *Science Resource Centre*

The Science Resource Centre, located at Errol Road School in Sarnia, serves as the activity hub through which teachers can access all SEP science education programs.

The Science Education Partnership is committed to the implementation of its long-term plan for the support and enhancement of a quality science program. Throughout this process, the Partnership continuously informs all stakeholders of the ongoing developments of the science program and of all the key elements in the achievement of its vision.



Science Resources – SCIENCE KIT PROGRAM

The science kit program provides educators with “Hands-on, Minds-on” science materials and equipment in the form of educational kits.

*Mission  
Element*

*Five Year  
Objectives*

- Align all kits with revised S&T curriculum to result in one updated kit in each strand in all grades
- Increase science kit program usage
- Increase science kit program awareness

Total Annual Bookings	1281
Number of schools participating	79 of 81 total
For each school, number of teachers using kits vs. total number of teachers at that school	See Appendix C

*Measurable  
Indicators  
Report for  
2010-2011*

*Action  
Highlights  
from  
2010-2011*

- Kit modification, based on the gap analysis report, continues in an effort to align kits with the revised Ontario Science & Technology Curriculum, 2007. Teams will concentrate on modifying kits with the largest number of gaps.
- Communication continued to all schools. Information packages were sent out; there were regular updates to the website, and routine dispatches to the mailing list.
- The SEP kit program was highlighted at school board in-services and presentations were made to Principal Councils and both Boards of Education.

- Continue to follow long-range kit modification schedule to align kits with the revised Ontario Science & Technology Curriculum
- Send SEP information package to all schools
- Continue to send updates to teachers on the SEP mailing list
- Highlight SEP programs at each board’s new teacher workshops in the early fall
- Continue to develop new “virtual in-service” opportunities for the website
- Create and post one newsletter per term on SEP website
- Working through board program consultants, highlight SEP resources at the appropriate LKDSB and SCCDSB in-service opportunities and workshops
- Highlight SEP programs at a Principal Meeting
- Send Science Centre Technician to the Science Teachers of Ontario Conference to survey materials and sessions that may assist with the task of alignment

*Action  
Targets  
2011-2012*



Science Resources – ADOPT-A-SCIENTIST VOLUNTEER PROGRAM

The Adopt-a-Scientist volunteer program engages experts with a science, engineering or technical background in classrooms to enrich the science curriculum.

*Mission Element*

*Five Year Objectives*

- Increase number of volunteers
- Increase number of demonstrations occurring in classrooms
- Increase Adopt-a-Scientist program awareness

Number of volunteers	17
Number of requests for volunteer assistance	129
Number of schools participating	33
Number of teachers participating	72

*Measurable Indicators Report for 2010-2011*

*Action Highlights from 2010-2011*

- Stimulating monthly network meetings kept all volunteers up to date, allowing them to share new ideas and make improvements to classroom demonstrations.
- Four new volunteers were welcomed into the group.
- Curious Math demonstrations were developed to supplement existing demonstrations.
- A presentation about the Adopt-a-Scientist Group was made as a part of the "Central Forum" speaker series at Central United Church in Sarnia.
- Adopt-a-Scientist members created a Science Activity Booth for the City of Sarnia Children's Festival, "Kids Fun Fest".
- The Adopt-a-Scientist Program was featured in the Sarnia monthly magazine, *First Monday*.
- The Adopt-a-Scientist program was highlighted in all SEP promotional materials, at school board in-services, and Principal Council meetings.

- Continue to seek new volunteers
- Explore annuitant groups, retired teacher groups, and service clubs as sources of new volunteers.
- Encourage current volunteers to invite friends and colleagues to become volunteers
- Advertise volunteer positions on the SEP website
- Advertise volunteer positions at activities such as Kids Fun Fest and local annuitant group meetings
- Hold monthly volunteer network meetings to discuss demonstrations and share ideas
- Include Adopt-a-Scientist demonstration information and create "virtual volunteer demonstration" clips to be posted on the SEP website
- Highlight Adopt-a-Scientist program at all in-service opportunities and new teacher workshops
- Include Adopt-a-Scientist program details in information packages sent to all schools
- Encourage media coverage of volunteer events
- Send at least one volunteer to the Science Teachers Association of Ontario Conference

*Action Targets 2011-2012*





Science Resources – INNOVATIVE SCIENCE SUPPORT LINKING SCHOOL AND COMMUNITY

The SEP organizes additional education programs that celebrate and promote science and technology learning within our schools. These activities also facilitate the connection between community and business resources with educators.

*Mission Element*

*Five Year Objectives*

- Increase community and industry sponsored science-related opportunities for local educators

Number of educational opportunities offered	1
Number of teachers participating	28

*Measurable Indicators Report for 2010-2011*

*Action Highlights From 2010-2011*

*"This was an excellent activity for my students. I feel they benefited greatly because it fit so well with the curriculum!"*

A teacher, in reference to the Engineer for a Day activity

- Engineer for a Day bridge building activities occurred throughout the months of November, January and February, culminating in final testing at Lambton College on March 26, 2011. Members of the media covered the event.
- SEP materials were part of agricultural displays in both Lambton and Kent Counties. Local teachers were honoured at LKAITC Gala Fundraising Dinner in March 2010. Opportunities offered by the LKAITC Action Committee were also advertised on the SEP website and via the mailing list.
- Local science fairs were promoted on the SEP website and an informational booth was set up at both locations.

- Work with Lambton Chapter of the Professional Engineers of Ontario to offer activities celebrating Engineering Month
- Work with Adopt-a-Scientist Volunteers to offer an opportunity to celebrate International Year of Chemistry
- Post links to Chatham-Kent and Sarnia-Lambton Science Fair on the SEP website
- Set up SEP informational booth at promotional opportunities that arise
- Work through the Lambton Kent Agriculture in the Classroom Steering Team representative, post links to agriculture related educational opportunities on SEP website

*Action Targets 2011-2012*



SEP PARTNERS

The SEP is dedicated to recruiting program partners and having our partners help monitor and manage programs.

*Mission  
Element*

*Five Year  
Objectives*

- Increase number of contributing partners
- Recognize and acknowledge partners and the SEP within the community.

Number of newly recruited or returning partners	1
Number of continued partners	4
Total of all partner financial contributions designated for 2010/11	\$27,233.53

*Measurable  
Indicators  
Report for  
2010-2011*

*Action  
Highlights  
from  
2010-2011*

- 80% of the partners from 2009-2010 continued to contribute to the SEP in 2010-2011.
- A small subcommittee of Steering Team members continued an internet search for funding opportunities
- Bluewater Power has returned as financial contributors to the SEP

- Maintain contact with current partners annually and renew the request for each to continue participation in the SEP
- Continue to investigate and apply for on-line funding opportunities of science related businesses.
- Use personal contact networks to increase awareness of the SEP and the need for new partners through our Steering Committee members emphasizing environmental and energy based companies
- Explore opportunities regarding government and community group funding that arise
- Issue press releases regarding appropriate SEP events and activities via the proper public relations contacts at each school board
- Display SEP informational booth at all promotional opportunities that arise, making use of SEP brochure, display board and banner
- Recognize all partners on SEP website
- Address recruitment issues at each Steering Team meeting
- Review, update and resend letters sent to past partners
- Address budget totals at each Steering Team meeting
- Address media and promotional items at each Steering Team meeting
- Supply tax donation receipts to contributing partners
- Share annual reports with all stakeholders
- Determine school board representation on SEP committees with senior administration



*Action  
Targets  
2011-2012*



### SEP SCIENCE RESOURCE CENTRE

The Science Resource Centre is responsible for managing, maintaining, and delivering all science resources and programs efficiently.

*Mission  
Element*

*Five Year  
Objectives*

- Enhance the effectiveness and efficiency of service from the SEP

Number of bookings per kit title		See Appendix D	
Filled kit booking requests	Unfilled kit booking requests	1281	32
Filled Adopt-a-Scientist booking requests	Unfilled Adopt-a-Scientist booking requests	129	8

*Measurable  
Indicators  
Report for  
2010-2011*

### *Actions Accomplished 2010-2011*

- SEP storage room and refurbishing work area at Errol Rd. was re-organized to achieve cost-effective inventory control in a single location after closure of Chatham centre.



- Based on feedback from the kit user surveys collected from kit users in May 2009, continue to implement an action plan to improve service to teachers.
- Continue use of feedback form for Adopt-a-Scientist demonstrations. At the end of the year, collate and review teacher feedback and present to volunteers, who will then plan appropriate demonstration upgrades
- Regularly review workload of Science Centre staff

*Action  
Targets  
2011-2012*



## OVERALL EFFECTIVENESS MEASURES: STRIVING FOR CONTINUOUS IMPROVEMENT

The SEP must demonstrate to all stakeholders that the Partnership is viable, and be able to measure achievement of our mission and vision statements.

By nurturing an interest in science at the elementary level, it is anticipated that the number of students who continue to study, and ultimately work in science-related fields, will increase. Our goal is to foster and encourage a society with greater scientific literacy.

Although it is difficult to find an accurate measure to track long term overall effectiveness of our Partnership, our goal to increase student interest and understanding of this subject, remains paramount. The SEP strives to bring science alive for students by providing “Hands-on, Minds-on” science educational resources for teachers who will deliver these programs to students. Teachers of the LKDSB and SCCDSB are therefore the primary clients for which the SEP provides service. The overall effectiveness tracked over the next five years will reflect increases in the number of teachers who make use of the resources provided, therefore increasing the number of students benefiting from our programs. Measurable indicators will include:

### *Measurable Indicator Report: 2010-2011*

Total number of teachers participating in all SEP science resource programs of the total number of classroom teachers within both systems	375 of 932
Total number of schools accessing the SEP science resource programs of the total number of schools	79 of 81
Qualitative feedback collected from a survey of all teachers	See * below

### **\*Qualitative Survey Results**

A qualitative survey is conducted periodically. The latest survey was conducted in May of 2008, when five copies of a qualitative survey were sent to every school in both School Boards. The questions on the survey were designed to ascertain if the general teaching population was aware of the Partnership resources and how to better improve communication, service, and the quality of our resources. Highlights of the information gleaned from this survey are listed in various categories below.

#### **Response**

- 42% of the 425 surveys were returned
- 62% of schools sent back at least one response

#### **Immediate Changes in Service/Policy**

- 56% of respondents said they'd like to keep their kit for eight weeks. The lending period was increased from six to eight weeks in 2008-2009
- Specific misconceptions about our resources and services were addressed on the SEP website in an article on the “What’s New” page



- Several suggestions were taken into consideration when creating the inventory for kits piloted in 2008-2009
- Teachers indicated the best way to communicate with them was to do so directly, via an electronic mailing list. An overwhelming 77% of those who responded asked to be on this list, which was created and information was sent out to teachers in regular intervals throughout 2008-2009.

### **Areas Needing Work**

- There was a reoccurring theme throughout the comments from teachers to increase the resources in the kit that would help teachers to integrate science with other subject areas. As an example, a popular suggestion was to increase the number of age appropriate, science-related materials for language.

### **Where the SEP is on the Right Track**

- Two thirds of teachers who responded approached science experiments in small groups, and indicated that they found the quantities of materials provided in SEP science kits to be adequate
- Only 16% of respondents indicated unfamiliarity with the Science Education Partnership. This has decreased from 44% indicated in the survey sent out in 2004.

### **Encouraging Comments**

- "I absolutely love every kit I have ordered! They are complete, easy to use, readily available and time saving. (Magic in a box!)"
- "I use them for every strand. Fabulous resources for the classroom, thanks."
- "Thanks to science centre staff, curriculum teams and sponsors! Great work!"

### **Future Directions**

A final question on the survey read, "If you had a free wish from a genie who wanted to make teaching science easier for you, what would you ask for?" Although there were many "wishes" that would be beyond the capability of the SEP to grant, there was a large number of teachers who asked for help addressing split grade classes. This may be an area curriculum teams could address once all current kit titles are properly aligned with the 2007 Ontario Curriculum document.

### ***2011-2012***

Curriculum teams will continue to address areas where improvement is possible, based on 2008 survey feedback and on-going communication with kit users. One example of continuing improvement is that every effort is being made to include materials that integrate science with math and literacy in all new kits. A new five year plan will be developed over the 2011-2012 school year, and the team will give consideration to conducting a new qualitative survey to help assess current needs among resource users.



## HISTORY OF THE SCIENCE EDUCATION PARTNERSHIP

The Science Education Partnership is a unique enterprise that has thrived for over a decade. Key details in the development of the SEP are listed below.

1992

- Dow approached the Lambton County Board of Education, (now the Lambton Kent District School Board) and the Lambton County Roman Catholic Separate School Board (now the St. Clair Catholic District School Board) to form the Lambton County Science Education Partnership.
- A one-time grant from the Ministry of Education and Training was received. This funding was dedicated to in-service training of teachers as new science kits were developed.
- A primary (grades K-3) and junior (grades 4-6) curriculum team was established to build science kits.

1993

- Polysar (now Lanxess) became a partner and provided funding to be used to renovate and furnish the Science Resource Centre.
- The first science kit, “Primary Bounce, Roll and Spin”, was built and tested in two classrooms. The pilot teachers and curriculum team members finalized the inventory and this was duplicated into multiple copies. An in-service to introduce the kit to teachers was held with one teacher from every school attending. This process would become the model for development of all future science kits.

1994

- A technician for the Science Resource Centre was hired.
- The Science Resource Centre, housed at St. Joseph School in Sarnia, officially opened in November.

1995

- Imperial Oil joined as a human resources partner. Retired engineers, scientists and technical people became involved in the Adopt-a-Scientist Program. Volunteers in this program assisted with “hands-on” science activities in classrooms.
- Sarnia Hydro (now Bluewater Power) committed their support to build a “Power of Electricity” kit for the junior division.

1996

- Interprovincial Pipeline (now Enbridge) became a partner.

1997

- Via the community group, Friends of the St. Clair River, funds were donated from the Ministry of the Environment, Canada Trust Friends of the Environment, and Shell Environmental Fund. This was used to build a River Science Kit.
- Cabot Carbon joined the SEP

1998

- Amalgamation of school boards occurred resulting in the co-terminus boards from Lambton and Kent counties joining, thereby doubling the district size. A transition team was formed to determine how the partnership would expand to service the entire district.
- The official name, Lambton County Science Education Partnership changed to Science Education Partnership.
- The new “Ontario Science and Technology Curriculum Grades 1-8” was introduced. The curriculum teams worked to align all science kits to this new curriculum.
- Imperial Oil, previously a human resources partner, became a financial partner.
- Other new partners contributing within the year included Meritor Industries and the Maple City Optimists.



- 1999
- An intermediate curriculum team was formed to build kits for grades 7-8.
  - Navistar and Siemens Tilbury Plant became new partners.
- 2000
- A satellite centre was established in Chatham. It was staffed half time to service the schools in the south part of the district.
  - New contributors to the SEP included Pioneer Hybrid (now Monsanto), and Kent Agriculture in the Classroom.
- 2001
- A grant from the Ministry of Energy, Science and Technology was received and used to build and copy three new kit titles.
  - Several members of the Steering Team presented a session on the SEP at the province-wide Science Teachers Association of Ontario Conference in Toronto.
- 2002
- Due to the impending closure of St. Joseph School in Sarnia, a relocation committee was formed to find a suitable site for the Science Resource Centre. The committee successfully determined that Errol Road Public School was the most viable option and the centre was re-established there in July.
  - A tenth anniversary open house was held at Bayer in June. The celebration consisted of a timeline display, refreshments and hands-on activities.
- 2003
- Suncor pledged support to produce two Ecosystems pilot kits for Grade 7.
  - Ontario Power Generation agreed to fund two kit titles, Electricity for Grade 6 and Conservation of Energy for Grade 5.
- 2004
- Basell and Nova Chemicals each submitted a donation to the Partnership as a result of an aggressive letter campaign by the Recruitment Committee. Dow, Bayer, Cabot Carbon, Imperial Oil and Kent Agriculture in the Classroom continued their support of the Partnership for another year.
  - The office at the Sarnia Resource Centre was renovated and a new laptop was purchased.
  - The Science Education Partnership website was launched.
  - The Science Education Partnership was nominated for a 2004 Technology Innovation Award sponsored by The Learning Partnership
  - The Science Education Partnership was nominated for a National Science and Engineering Research Council of Canada Michael Smith Award for Science Promotion.
- 2005
- As a result of a partner recruitment letter campaign, Union Gas and Guspro in Chatham became a partner. Dow, Lanxess (formerly Polysar, Bayer), Imperial Oil, Cabot Carbon, Nova, Laidlaw, Ontario Power Generation, and Kent Agriculture in the Classroom continued their support of the Partnership.
  - The Adopt-a-Scientist Program marked the tenth year of helping with “Hands-on, Minds-on” science in the classroom.
- 2006
- New partners, Bluewater Power Distribution Company and Pioneer were welcomed to the SEP.
  - Adopt-a-Scientist Volunteers were named on the Mayor’s Honour List in Sarnia.
- 2007
- A district-wide Teacher Resource Fair was organized to include over 25 booths that included educational vendors, school board resource programs, local community organizations that offer programs for students.
  - A new five year strategic plan was developed to guide SEP activities from 2007 to 2012.



2008

- The Ontario Curriculum, Grade 1-8, Science and Technology document was revised. Curriculum teams performed a gap analysis of our science kits to determine which areas needed to be addressed.
- Volunteers Fern Noel and Don Murray presented a session on Solutions and Mixtures at the provincial conference of the Science Teachers Association of Ontario.

2009

- Ontario Power Generation returned as a partner in the SEP.
- Bridge Building Engineering Week activities coordinated through the SEP involved the largest number of students involved in one project province-wide.
- Adopt-a-Scientist requests reached an unprecedented 115 requests.

2010

- A "Getting Started" document was developed for each Intermediate level (Grade 7/8) kit.
- Pioneer and Union Gas returned as financial partners in the SEP.
- SEP outreach activities included a presentation to the Golden Kiwanis Club, presentation of an informational booth at both the Lambton and Kent County Science Fairs, and a science activity booth at a City of Sarnia children's festival, *Kids Fun Fest*.
- The Sarnia and Chatham Science Resource Centres were consolidated into one location at the Sarnia Errol Road Public School site in May 2010.

2011

- Bluewater Power returned as a financial partner
- Four new volunteers joined the Adopt-a-Scientist Volunteer Program.



*Strategic Five Year Plan 2007-2012*

SCIENCE RESOURCES – educational programs provided for teachers			PARTNERS	SCIENCE RESOURCE CENTRES
<b>SCIENCE KIT PROGRAM</b>  The science kit program provides educators with “Hands-on, Minds-on” science material and equipment in the form of educational kits.	<b>ADOPT-A-SCIENTIST VOLUNTEER PROGRAM</b>  The A-a-S volunteer program engages experts with a science, technical, or engineering background in classrooms to enrich the science curriculum.	<b>INNOVATIVE SCIENCE SUPPORT - LINKING SCHOOL AND COMMUNITY</b>  The SEP organizes educational programs that celebrate and promote science & technology learning within our schools. These activities also facilitate the connection between community/ business resources and educators.	The SEP is dedicated to recruiting program partners and having our partners help monitor and manage programs.	The science resource centers are responsible for managing, maintaining, and delivering all science resources and programs efficiently.
<b>Five Year Objective:</b> <ul style="list-style-type: none"> <li>o Align all kits with revised S&amp;T curriculum to result in one updated kit in each strand in all grades</li> <li>o Increase program usage</li> <li>o Increase program awareness</li> </ul>	<b>Five Year Objective:</b> <ul style="list-style-type: none"> <li>o Increase number of volunteers</li> <li>o Increase number of demonstrations in and out of classrooms</li> <li>o Increase program awareness</li> </ul>	<b>Five Year Objective:</b> <ul style="list-style-type: none"> <li>o Increase community and industry sponsored science-related opportunities for local educators</li> </ul>	<b>Five Year Objective:</b> <ul style="list-style-type: none"> <li>o Increase number of contributing partners</li> <li>o Recognize and acknowledge partners and the SEP within the community</li> </ul>	<b>Five Year Objective:</b> <ul style="list-style-type: none"> <li>o Enhance the effectiveness and efficiency of service from the SEP</li> </ul>
<b>Measurable Indicators:</b> <ul style="list-style-type: none"> <li>o Total annual bookings</li> <li>o Number of schools participating</li> <li>o For each school, the number of teachers using kits vs. the total number of teachers at that school</li> </ul>	<b>Measurable Indicators:</b> <ul style="list-style-type: none"> <li>o Number of volunteers</li> <li>o Number of requests for volunteer assistance</li> <li>o Number of schools participating</li> <li>o Number of teachers participating in A-a-S program</li> </ul>	<b>Measurable Indicators:</b> <ul style="list-style-type: none"> <li>o Total number of educational opportunities and activities offered</li> <li>o Number of teachers participating in each activity</li> </ul>	<b>Measurable Indicators:</b> <ul style="list-style-type: none"> <li>o Number of newly recruited sponsors</li> <li>o Number of continued partners</li> <li>o Total of all partner donations</li> </ul>	<b>Measurable Indicators:</b> <ul style="list-style-type: none"> <li>o Number of bookings per kit title</li> <li>o Number of filled and unfilled kit requests</li> <li>o Number of filled and unfilled A-a-S bookings</li> </ul>
<b>OVERALL EFFECTIVENESS MEASURE</b> <ul style="list-style-type: none"> <li>o Total number of teachers participating in all SEP science resource programs vs. the total number of teachers within both systems</li> <li>o Total number of schools accessing the SEP science resource programs vs. the total number of schools who are not</li> <li>o Qualitative feedback collected from a survey of all teachers</li> </ul>				

**DISTRIBUTION REPORT 2010-2011: NUMBER OF TEACHERS BOOKING AT EACH SCHOOL**

School	Board	No. Teachers Participating	Classrooms per School	% Teachers Participating
A.A. Wright	LKDSB	2	9	22%
Aberarder	LKDSB	6	6	100%
Bosanquet	LKDSB	3	7	43%
Bridgeview	LKDSB	4	7	57%
Brigden	LKDSB	2	9	22%
Bright's Grove	LKDSB	7	13	54%
Brooke	LKDSB	9	15	60%
Cathcart	LKDSB	8	20	40%
Centennial	LKDSB	8	11	73%
Col. Cameron	LKDSB	3	10	30%
Confederation	LKDSB	6	11	55%
D.A. Gordon	LKDSB	3	10	30%
Dawn	LKDSB	3	5	60%
Dresden	LKDSB	4	15	27%
East Lambton	LKDSB	1	9	11%
Errol Rd.	LKDSB	9	17	53%
Errol Village	LKDSB	5	8	63%
Grand Bend	LKDSB	5	8	63%
Gregory Dr.	LKDSB	3	11	27%
H.W. Burgess	LKDSB	4	9	44%
Hanna Memorial	LKDSB	2	9	22%
Harwich Raleigh	LKDSB	5	21	24%
High Park	LKDSB	9	18	50%
Hillcrest	LKDSB	10	13	77%
Indian Creek	LKDSB	3	19	16%
J.N. Given	LKDSB	3	11	27%
King George Chatham	LKDSB	5	12	42%
King George Sarnia	LKDSB	9	12	75%
Kinnwood Central	LKDSB	5	11	45%
Lakeroad	LKDSB	5	8	63%
Lansdowne	LKDSB	7	15	47%
London Rd.	LKDSB	4	8	50%
McNaughton	LKDSB	9	27	33%
Merlin	LKDSB	2	8	25%
Mooretown	LKDSB	2	5	40%
P.E. McGibbon	LKDSB	6	19	32%
Q.E. II Chatham	LKDSB	0	14	0%
Q.E.II Petrolia	LKDSB	5	12	42%
Q.E.II Sarnia	LKDSB	10	15	67%
Ridgetown	LKDSB	1	7	14%
Ridgeview Moravian	LKDSB	3	11	27%
Riverview	LKDSB	5	9	56%
Rosedale	LKDSB	8	19	42%
Sir John Moore	LKDSB	7	18	39%
South Plympton	LKDSB	4	4	100%
Tecumseh	LKDSB	2	16	13%
Thamesville		4	7	57%
Tilbury	LKDSB	7	16	44%



Victor Lauriston	LKDSB	7	17	41%
W.J. Baird	LKDSB	2	9	22%
Wheatley	LKDSB	3	14	21%
Winston Chruchill	LKDSB	8	11	73%
Wyoming	LKDSB	4	5	80%
Zone	LKDSB	1	8	13%
Christ the King	SCCDSB	1	6	17%
G.P. Vanier	SCCDSB	2	10	20%
Good Shepherd	SCCDSB	3	16	19%
Gregory Hogan	SCCDSB	3	12	25%
Holy Family	SCCDSB	2	11	18%
Holy Rosary	SCCDSB	4	6	67%
Holy Trinity	SCCDSB	15	18	83%
Monsignor Uyen	SCCDSB	2	12	17%
Our Lady of Fatima	SCCDSB	3	19	16%
Sacred Heart Port L.	SCCDSB	2	6	33%
Sacred Heart Sarnia	SCCDSB	7	11	64%
St. Agnes	SCCDSB	1	7	14%
St. Anne Blenheim	SCCDSB	4	16	25%
St. Anne Sarnia	SCCDSB	4	13	31%
St. Elizabeth	SCCDSB	4	8	50%
St. John Fisher	SCCDSB	4	12	33%
St. Joseph Chatham	SCCDSB	1	8	13%
St. Joseph Corunna	SCCDSB	9	13	69%
St. Joseph Tilbury	SCCDSB	9	10	90%
St. Matthew	SCCDSB	10	17	59%
St. Michael Bright's G	SCCDSB	3	10	30%
St. Michael Ridgetown	SCCDSB	3	10	30%
St. Michael Turnerville	SCCDSB	2	4	50%
St. Peter Watford	SCCDSB	6	9	67%
St. Philip	SCCDSB	7	8	88%
St. Ursula	SCCDSB	2	14	14%
St. Vincent	SCCDSB	0	8	0%

**DISTRIBUTION REPORT 2010-2011: BOOKINGS BY KIT TITLE**

Division	Kit Title	No. of bookings
Kinder Kits	Bubble	9
	Colour	10
	Guck	11
	I'm a Scientist	6
	Roll	7
	Stick	7
	Primary Kits	Air & Water in the Environment
Body Basics		24
Butterflies		29
Energy		34
Farm Animals		27
Forces Causing Movement		50
Frogs in a Pond		25
Liquids & Solids		27
Movement		45
Objects and Materials		23
Plants		10
Seasons		29
Soil		51
Stability		36
Pr. Literature Kits		Air, Sun & Water
	Banners Weather	21
	Banners Gardens	6
	Life Cycles	28
Junior Kits	Conservation of Energy	33
	Diversity	21
	Electricity	55
	Flight	25
	Forces Acting on Structures	30
	Gears Box	18
	Habitats	49
	Human Body	35
	Light	37
	Matter	37
	Pulleys and Gears	55
	Rocks, Minerals and Erosion	33
	Space	47
	Intermediate Kits	Cells
Cells Supplement box		5
Ecosystems		25
Fluids		9
Heat		41
Mechanical Efficiency		8
Microscopy		29
Mixtures		35
Structural Strength		25
Water Systems		8



## ADOPT-A-SCIENTIST OBJECTIVES

The objectives for having volunteers in the classroom are as follows:

- Provide direct support for the teacher in the classroom.
- Offer direct encouragement to students as they learn science and scientific principles.
- Demonstrate a “Scientist/Engineer/Technician” role model and provide mentorship for students.
- Act as a resource person for teachers.
- Offer suggestions for program changes and improvements.

## ADOPT A SCIENTIST VOLUNTEERS

The Science Education Partnership recognizes the tremendous contribution to this program in 2010-2011 from the individuals listed below.

<i>Name</i>	<i>Scientific Background</i>
Winston Cameron	Engineering, former Imperial Oil employee
Naren Charkrabarti	Engineering, former Bayer employee
Tom Deeprise	Chemistry, former Polysar employee
Helen Ferkul	Chemistry, former Dow employee
Bill Hopkins	Chemistry, former Polysar employee
Peter Johnson	Chemistry, former Gencorp employee
Ron Laflair	Chemical engineering, former Lanxess employee
Jim Lomax	Engineering, former Imperial Oil employee
John Lovegrove	Engineering, former Lanxess employee
Dave Machacek	Neuroscience, volunteer
David Murray	Engineering, former Imperial Oil employee
Fern Noel	Chemistry, former Imperial Oil employee
Chris Olavesen	Engineering, former Imperial Oil employee
Volker Oettershagen	Engineering, former Ontario Hydro employee
Morris Rogers	Chemistry, former Dow employee
Sonya Santavy	Biological science, Min. of Natural Resources employee
John Ward	Engineering, former Polysar employee



**SCIENCE EDUCATION PARTNERSHIP  
FINANCIAL REPORT: JULY 1, 2010 TO JUNE 30, 2011**

**FINANCIAL REPORT BY BUDGET LINE**

Account	Opening Balance	Receipts	Expenditures	Closing	Notes
Lanxess	\$8,793.50	\$5,000.00	\$4,074.30	\$9,719.20	1
Cabot	\$493.64	\$0.00	\$0.00	\$493.64	2
Imperial Oil	\$5,569.73	\$17,233.53	\$13,550.84	\$9,252.42	3
Misc. Grants	\$3,065.46	\$0.00	\$359.99	\$2,705.47	4
LKAITC	\$10,358.14	\$5,000.00	\$7,044.20	\$8,313.94	5
OPG	2,500.00	\$0.00	\$1,367.65	1,132.35	6
Pioneer	\$1,500.00	\$0.00	\$887.87	\$612.13	7
Suncor	\$304.85	\$0.00	\$0.00	\$304.85	8
Union Gas	\$1,500.00	\$0.00	\$0.00	\$1,500.00	9
<b>TOTAL</b>	<b>\$34,085.32</b>	<b>\$27,233.53</b>	<b>\$27,284.85</b>	<b>\$34,034.00</b>	

Notes:

- 1 Funds designated for Science Resource Centre costs.
- 2 Funds designated for kit development and refurbishing supplies
- 3 Funds designated for kit development and Adopt-a-Scientist costs. Receipts are from Imperial Oil, (\$10,000 for Adopt-a-Scientist), Bluewater Power (\$5050 for revised electricity kits,) the City of Sarnia (\$700, donated in lieu of volunteer time at Kids Fun Fest Children's festival) and from the Ontario Professional Engineers Lambton Chapter (\$1483.53 to pay for expenses incurred during *Engineering Week* activities).
- 4 Funds designated for staff development, and in-service expenses
- 5 Funds designated for kit development and refurbishing supplies
- 6 Funds designated for kit development and refurbishing supplies
- 7 Funds designated for kit development and refurbishing supplies
- 8 Funds designated for kit development and refurbishing supplies
- 9 Funds designated for kit development and refurbishing supplies

**FINANCIAL REPORT BY EXPENDITURE TYPE**

Expenditure Type	Budget Lines	Total Expenditure	Major Purchases
New Kit Development /Adopt-a-Scientist Expenses	Imperial Oil LKIATC	\$20,595.04	<ul style="list-style-type: none"> <li>• 16 copies of new Air and Water in the Environment.</li> <li>• New inventory to align junior kits to revised curriculum</li> <li>• Adopt-a-Scientist expenditures (from Imperial Oil account)</li> </ul>
Refurbishing/Kit Maintenance	OPG Pioneer	\$2,255.52	<ul style="list-style-type: none"> <li>• Replenish consumables in all used kits</li> </ul>
Staff Development/Teacher In-service	Misc. Grants	\$359.99	
Science Resource Centre	Lanxess	\$4,074.30	<ul style="list-style-type: none"> <li>• Office supplies, upgrades, expenses</li> <li>• Costs associated with consolidating science resource centres into one location</li> </ul>



## SCIENCE EDUCATION PARTNERSHIP STEERING TEAM MEMBERS 2010-2011

### Lambton Kent District School Board

Joy Badder,	Superintendent of Education
Taf Lounsbury	Coordinator of Student Achievement, Elementary
Cheryl Wolting	Program Consultant
Carmen Lemieux	Principal, Errol Road Public School
Wilma Sonneveld-Wright	Principal, Harwich-Raleigh Public School

### St. Clair Catholic District School Board

Dr. Frank Leddy	Superintendent of Schools
Sherrie Daudlin	Catholic Curriculum Consultant
Phil Bedard	Vice Principal, St. Anne Catholic School, Sarnia
Jean Mantha	Principal, St. Joseph Catholic School, Corunna

### Industry & Community Representatives

Dennis Loucks	Lanxess Inc.
Bryce McGarvey	Imperial Oil Limited
Sue McLarty	Lambton Kent Agriculture in the Classroom

### Primary Curriculum Team

Lorraine Willemse	St. Peter Canisius Catholic School
Joan Mausser	Confederation Central Public School

### Junior Curriculum Team

Lisa Aarssen	St. Elizabeth Catholic School
Patricia Drimmie	Confederation Central Public School

### Intermediate Curriculum Team

Brian Jubenville	Queen Elizabeth II Public School
Jodi Tetreault	St. Elizabeth Catholic School

### Science Resource Centre Staff

Wendy Hooghiem	Science Resource Centre, Sarnia
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### *Science Education Partnership Contact Information*

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