

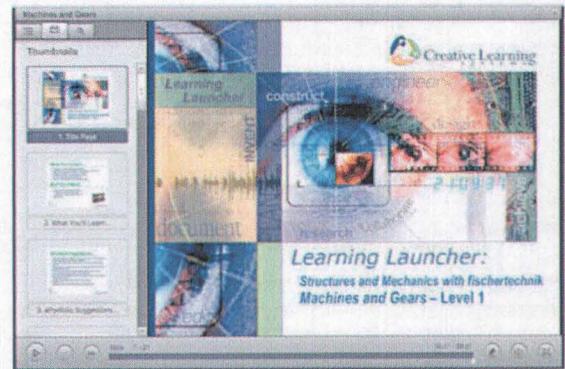
## Curriculum Resources

Every aspect of a SmartLab environment is carefully designed and integrated to foster development of higher-order thinking skills, build 21<sup>st</sup> century competencies, and support transdisciplinary academic connections. Problem solving, self-direction, analysis and synthesis, creativity, project management, collaboration and communication skills are among the critical abilities students gain from their SmartLab experience.

The SmartLab hosted curriculum system provides an engaging, project-based approach to academic content with particular emphasis in STEM, digital art and communications. Each of the curriculum resources described below work in concert with the environment design, equipment and learning resources, and professional development, to motivate, engage and inspire learners of all interests and abilities.

### Learning Launchers™

Learning Launchers™ are the most comprehensive, interactive and student-friendly curriculum system ever developed for the SmartLab! Each Learning Launcher lesson features engaging, project-based activities in STEM, digital communications and other academic topics. All Learning Launcher activities utilize applied technology to reinforce academics and build 21<sup>st</sup> century skills. Many of the Learning Launchers include video tutorials, project worksheets, hyperlinks to rich internet content and other resources that in total help to support core academic content through hands-on exploration. Autonomy is a key element in all SmartLab curriculum. As learners progress from foundational engagements (Level 1) to more advanced engagements (Levels 2 & 3), Learning Launchers gradually offer more complex projects and greater opportunities for students to shape their own learning experience. With these multiple challenge levels, open-ended activities, and lots of “Extend Yourself” activities, Learning Launchers provide personalized learning for students of all abilities in grades 3-12.

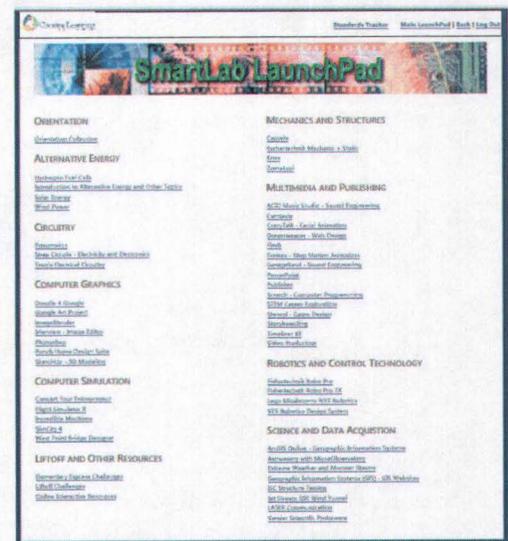


The SmartLab LaunchPad™ navigation system makes it easy for students to choose the activities and challenge level that's right for them. There are currently over 300 Learning Launchers in 60 different content areas, organized into eight systems of technology:

- Alternative Energy
- Circuitry
- Computer Graphics
- Digital Communications
- Mechanics and Structures
- Robotics and Control Technology
- Scientific Data and Analysis
- Software Engineering

The LaunchPad provides learners with an extensive array of choice to utilize applied technologies, explore academic content areas, and select challenge levels that are engaging, ability appropriate and personally relevant.

All of the Learning Launcher curriculum, online interactive resources and facilitator resources (including our electronic Standards Tracker) can be accessed from the online LaunchPad. This allows students, parents and educators to access SmartLab resources from anywhere. In addition, Learning Launcher licenses are school-wide, providing all educators with the opportunity to select and integrate appropriate project-based content into their lesson plans.



*“The Learning Launchers make STEM understandable by breaking it down to the ‘root’. Our SmartLab students have grasped engineering concepts that I never imagined possible.”* Derek Seifried  
SmartLab Facilitator, Brighton School District CO

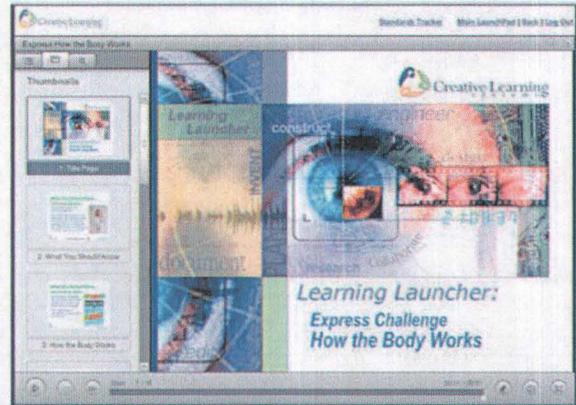
## Elementary Level Challenges

Creative Learning Systems' elementary level Learning Launchers guide project engagements and provide the core educational resources for elementary SmartLab experiences.

Liftoff Challenges feature project-based engagements for younger learners. Liftoff Challenges guide hands-on and computer-based project engagements with age appropriate projects and reading levels. While Liftoff Challenges are specifically targeted towards 4<sup>th</sup> and 5<sup>th</sup> grade learners, the content is not specifically identified as elementary curriculum. As a result, these learning engagements are also appropriate for many secondary school special education students. Liftoff Challenges are typically explored as project engagements of 5-7 class periods. Typically, students will rotate through a sequence of technology engagements with several teams of students working on the same Liftoff Challenge simultaneously.

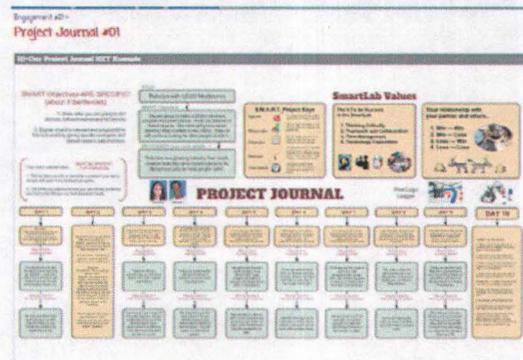
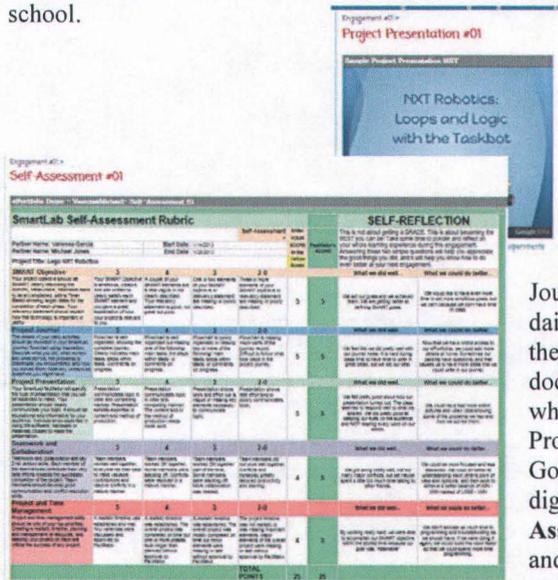
Express Challenges feature shorter project engagements for the full spectrum of elementary grades. Express Challenges can be conducted as whole-class activities and are appropriate for lower grades or when school schedules make longer project engagements difficult.

Liftoff Challenges and Express Challenges provide engaging, hand-on, minds on learning opportunities for elementary age learners and offer schools flexible scheduling options. They provide foundational experiences in STEM/STEAM and give learners early experiences in project-planning, communication and collaboration. All elementary school challenges are designed to support and articulate with secondary level SmartLab curriculum.



## ePortfolio

Creative Learning Systems provides every SmartLab with easily customizable ePortfolio templates and resources. Student ePortfolios may be hosted on Google Drive or other online educational hosting services enabling student and teacher access from any computer or mobile device. Alternatively, the ePortfolio system may be hosted on a local server within the SmartLab or school.



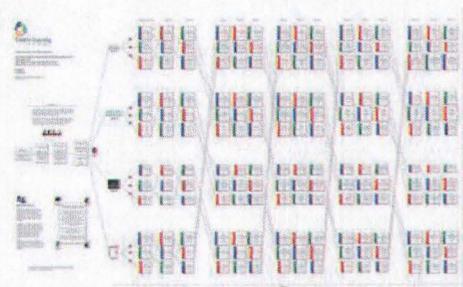
The ePortfolio system is comprised of three main elements. The **Project Journal** allows students to document their daily project process. The Project Journal is where learners record their objectives and write daily reflections about what they've learned and problems they've solved. The **Project Presentation** is how learners document results of their project work and communicate what they've learned through each project engagement. Project Presentations may be created using PowerPoint, Google Presentation, video or graphic software, or any other digital media appropriate to their project. The **Self-Assessment** provides an opportunity for learners to reflect and assess the quality of their objective, project work, presentation and collaboration skills, and identify specific

areas for future improvement. Self-assessments also provide a foundation for Smartlab Facilitators to have meaningful discussions with students about areas where perceptions of performance differ. This innovative assessment system allows for authentic assessment of project-based, student centered learning.

The SmartLab ePortfolio system provides a platform for learners to document, share and assess their work while building critical writing, presentation and digital communications skills. And the online hosting systems allow anytime, anywhere access to project work by both students and teachers.

### **The Learning Score™**

Facilitator-support resources include a wall-sized flow chart called the Learning Score. The Score provides a map to guide teams of learners through an initiatory SmartLab program. The Score is made up of a number of “nodes,” each of which describes location in the SmartLab and the resources the team will need (such as Learning Launcher, software, construction kits, and so on) for a particular learning engagement.



Following the Score, each team of learners will take a different path through the SmartLab, while gaining exposure to each of the eight systems of technology, or core competencies, represented in the environment. In this manner, each team of students gains from a unique learning experience, while assuring a necessary level of predictability in individual learning and proficiency.

The Score is custom designed for each SmartLab based on class size, program length, academic focus, and the equipment and learning apparatus provided. It is developed in collaboration with each school and Facilitator professional development includes training on how the Score may be modified as the needs and resources of the SmartLab evolve.

### **Academic Standards**

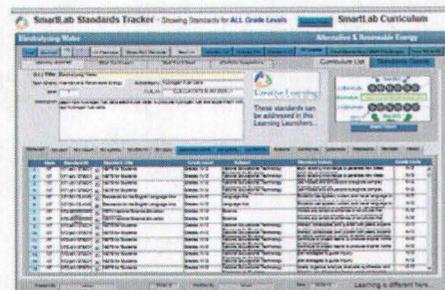
Creative Learning Systems curriculum is aligned to a wide range of national subject area standards, including the national common core standards, as well as a select group of state standards. Standards are accessed through a fully-interactive online database, allowing searches by standard, grade level, academic subject, Learning Launcher title and more.

These standards include:

- **Common Core Standards** for Mathematics
- **Common Core Standards** for English Language Arts
- **Science** - *National Science Education Standards*, The National Academy of Sciences
- **Mathematics** - *Principles and Standards for School Mathematics*, National Council of Teachers of Mathematics
- **Language Arts** - *Standards for the English Language Arts*, International Reading Association and the National Council of Teachers of English
- **Social Studies** - *Curriculum Standards for Social Studies*, National Council for the Social Studies
- **Technology** - *National Education Technology Standards for Students (NETS•S)*, International Society for Technology in Education (ISTE). *Standards for Technological Literacy: Content for the Study of Technology*, International Technology and Engineering Educators Association (ITEEA).

### **Standards Tracker Database**

Creative Learning Systems **Standards Tracker™** is an interactive database that provides correlations between the SmartLab Learning Launcher curriculum and a wide array of national and state standards. Using our online Standards Tracker, SmartLab schools can easily align student project activities with academic standards.



## Adjunct Services

This section describes the services Creative Learning Systems provides with each SmartLab installed: facility planning, the installation itself, professional development, and customer support.

### Facility Planning

Creative Learning Systems has a track record of successful working relationships with administrators, planning committees, architects, and builders. Our goal is the optimal design configuration for each specific physical setting. Supportive documentation includes customized floor plans along with guidelines for facility preparation, remodeling, and interior design.

### Installation Services

Creative Learning Systems provides a team of certified installers to unpack and assemble all CLS-supplied furnishings and equipment.

The installation team also loads software, establishes the data networks, and brings the SmartLab into operating condition. Installation takes three - six days.

### Professional Development

Facilitator training and professional development is included with this Proposal. Creative Learning Systems provides a total of four (4) days of group wide on-site facilitator training and one day with each facilitator at individual campuses. This training and development program is intended for those educators who will be directly involved in the day-to-day activities in the SmartLab (including up to four educators designated as alternate SmartLab facilitators). Additional training may be purchased from Creative Learning Systems at or after the time of lab purchase for \$1,500 per day.

Scheduling of the on-site learning facilitation professional development sessions is subject to availability of training resources. Creative Learning Systems will determine the timing, length, and number of sessions used to deliver the four (4) days of group wide professional development services and the additional one day with each facilitator in consultation with school representatives.

### Customer Support

CLS provides extensive technical and instructional support to all installations via our toll-free 800 number. Our facilitator support team telephone number in Longmont, Colorado is (800) 458-2887; the fax number is (303) 772-6422; and, <http://www.creativelearningsystems.com> is our website address.

### Curriculum and Support Agreement

The SmartLab Curriculum and Support Agreement (CSA) is the most affordable way to protect your investment in STEM education for your school. The SmartLab CSA includes access to all the latest curriculum and classroom resources from Creative Learning Systems. It also provides essential ongoing support and professional development. The benefits of the Curriculum and Support Agreement include the following:

- ✓ Access to hosted Learning Launcher Curriculum including all available updates and additions
- ✓ Access to hosted Facilitator Resources including all available updates and additions
- ✓ Up to four days additional onsite professional development in the event of facilitator turnover
- ✓ Unlimited telephone and online technical & pedagogical support
- ✓ Discounted rate for onsite technical support and/or additional professional development
- ✓ Discounted tuition for future Advanced Facilitator Development Conference (AFDC)
- ✓ Up to \$1000 per year in enhancement and replacement parts from the SmartLab catalog

The CSA is a five year agreement that may be prepaid for multiple years at the time of the initial SmartLab purchase or billed annually. The price per year is locked-in once a five-year Curriculum and Support Agreement is signed and there are not penalties for termination.

## Warranty

This section provides detailed information about the CLS warranty.

### What's Covered?

CLS warrants the materials included with the SmartLab will be free from defects in material or workmanship for a period of one (1) year from the date of installation

During the warranty period CLS will replace, repair, or facilitate replacement, at its option, any defective equipment components or software.

During installation, our installers shall take all reasonable precautions to avoid injury and damage to property.

### What's Not Covered?

CLS shall not be liable for acts of God, or of damages resulting from the use and/or service of the equipment including;

- Operation of the SmartLab outside of its environmental, electrical, or performance specifications, conditions, capabilities, or standards
- **Network/client viruses**
- Power fluctuation or failure
- Vandalism or any other damage or alteration of the SmartLab by persons other than CLS employees
- Combining incompatible products
- Damage, neglect, alteration, or any impairment of the SmartLab resulting from causes or conditions not associated with ordinary and intended storage, handling, installation, maintenance, service, or use

### Warranty Conditions

We warranty *only those subsystems and components certified by CLS and delivered by CLS as a part of the SmartLab, or purchased by Customer as per CLS specifications.* We assume no responsibility or liability for equipment, software, subsystems, or components that you, the customer, modify, add, or substitute.

This warranty remains valid only if you, the customer, maintain the configuration of the SmartLab as it is originally designed, manufactured, and installed by CLS.

All warranties associated with the SmartLab shall become null and void in the event of any modification, addition, or substitution made without the prior written consent from Creative Learning Systems.

### Post-warranty and extra-warranty support

Following the warranty period and for items outside of warranty coverage, CLS will provide, upon request of Customer and at CLS's pricing terms, maintenance service and maintenance parts for the SmartLab including on-site configuration. Whenever possible, CLS will facilitate third party low-cost service, repair, or replacement of items after the warranty period has passed.

## Customer Responsibilities

At CLS, we pride ourselves on delivering a turnkey product. We install every bolt, bracket, and bookcase, and deliver all the software, hardware, kits, and apparatus that make up the lab you buy. We do, however, count on you, our customer, to do some preparation for us. This section details those expectations. The more familiar you are with this section, the smoother your installation will go.

## Facility Preparation

CLS can only ensure on-schedule completion of the proposed project if the Customer has met all of our facility readiness requirements and computer equipment specifications PRIOR TO arrival of our installation crew.

Facility readiness requirements include:

- A **telecommunication line** at the facilitator's zone should be included as part of the facility preparation. The line will be used for voice calls to the CLS Customer Service toll-free (1-800) number.
- When required by local code, data network cabling and drops as specified by CLS
- Installation of data network (see plan view drawing)
- Electrical service (see plan view drawing)
- Customer supplied software as per CLS specifications.
- **Network Virus Protection**
- Removal of trash and debris

## Project Timeline

In the initial design and planning process of a SmartLab, we will create a **proposed timeline** of target dates and projected milestones so potential customers can clearly see the steps involved in implementing the program for your school and/or district wide. We work backwards from the first day you would like classes to take place in your environment to our very first onsite meeting with you to collect information and set expectations.

**Delivery, installation, and training** dates are reserved based on the order in which we receive purchase orders. We generally need to allow 8-10 weeks from the time your order is placed to the first day of installation. Installation is anticipated to occur over a consecutive three - five day period.

Our **installers will be onsite to receive all of the furniture and equipment** when it arrives. Installation also includes loading, configuration, and testing of all software programs on the computer hard drives. A brief orientation concerning any installation procedures and the location of the original software media, manuals, and registration documents will be provided.

Following installation, Creative Learning Systems provides **four to five days of on-site technical and instructional training** by a CLS Facilitator Support Specialist. Our training sessions are always onsite and at a mutually agreed upon time, based on availability. Training days will be consecutive unless otherwise requested. Training will include instruction in the proper use of the SmartLab, operation and maintenance of equipment, management of resources, and effective utilization of the learning materials.

### Pre-proposal steps:

- SmartLab first contact presentation for school and district staff.
- Subsequent presentations for additional staff, board members and other educational partners.
- Site visits are highly recommended & scheduled for anyone interested in a firsthand experience.
- Your CLS representative will then schedule a design meeting and onsite tour of your school(s).
- Two to five days later a Proposal (TPE) is prepared, delivered and presented.
- We encourage a lot of discussion, review and revision of the proposed configuration.
- Subsequent versions are presented, until your Proposal is converted into a final proposal.

**From receipt of your purchase order:**

- Week 1: The SmartLab proposal is accepted and a purchase order sent to CLS.  
Week 2: The proposed timeline is reviewed and finalized / materials are ordered.  
Week 6-8: Three to four day installation by trained CLS professionals.  
Week 8-10: Four to five days of onsite training by SmartLab Learning Environment Specialist.  
Week 10-52: A CLS Support Specialist maintains monthly contact with the SmartLab Lead Facilitator.  
Ongoing: A Curriculum & Support Agreement is in place to provide ongoing assistance.

### Typical Training Schedule

Although we tailor our facilitator training to the needs of each school, there are certain topics and experiences that are common to all. Extensive hands-on sessions are used throughout the training days with mind numbing technical stuff to keep everyone honest and smart! The training topics shown below are typical for a SmartLab environment.

Introductions and opening activities

Assess Facilitators' skills, experience, and goals

Fact finding:

- Expectations of CLS Training Session
- Models of SmartLab usage and scheduling
- Introduction to CLS Learning Philosophy
  - Project Based Learning
  - Constructivist Learning
  - Collaborative Learning

Tour of the Environment

Orientation to Creative Learning SmartLab Zones

Introduction to the Learning Environment Score™

Custom Score development

Introduction to Server Management

Orientation to Lab Components and Resources

Development of a cohesive management strategy

Hands-on Experiences

Introduction to, and hands-on experiences, with all interfaces

- fischertechnik with RoboPro
- Lego NXT Mindstorms
- SENSE-ible Science

Software Experiences

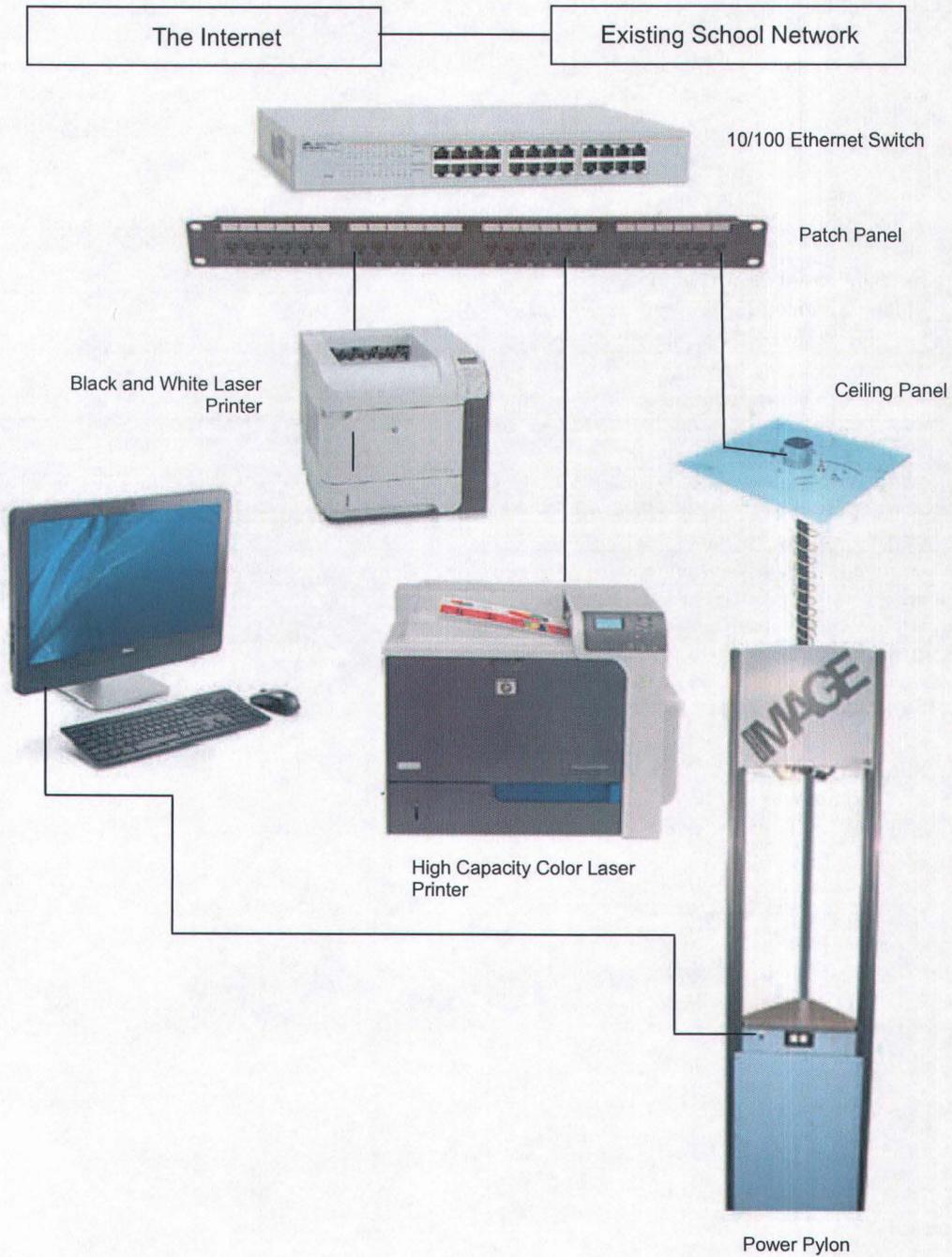
Planning for Learner Environment Management:

- Planning the Orientation
- Assessment Strategies
- Organization of Resources
- Inventory Control

Portfolio development & resource planning

## Network Information

Creative Learning Systems, we are committed to using network and computer equipment from only the most reputable manufacturers and integrating only those technologies that have proven themselves reliable in today's IT Industry. The diagram below shows the primary networking/computer components of a typical Creative Learning Environment installation. The following pages describe each component.



### Patch Panel (Customer Supplied)

The patch panel is the central location to which the entire network wiring in the environment is connected. These are fixed connections, which mean that each wire in each cable (eight per cable) is “punched down” into terminal blocks. They are permanent.

### Premise Wiring (Customer Supplied)

Premise wiring refers to all wiring and hardware components required to connect the network, from patch panel to pylon panel.

### Rack (Customer Supplied)

The rack is where the patch panel and switch are mounted.

### Pylon (CLS Supplied)

Each island has a central three-sided pylon, in which all services (network and power) are distributed to each station in the island, as needed. Network patch cables connect the bottom side of the ceiling drop to the top of the pylon. Network wiring then runs inside the service upright to the recessed panel. The network jacks reside in recessed panel; that’s where computers are plugged in.

### Switch (Customer Supplied)

The Ethernet switch connects all of the individual network wires, allowing computer devices in the environment to communicate with each other. The switch is mounted next to the patch panel in the rack. Small patch cables connect individual network cables in the patch panel to ports on the switch. The switch contains an uplink port that allows customers to link the Learning Environment to their existing school network.

### Lab Server (CLS supplied)

The server is the heart of the Learning Environment network. The stability, functionality, and supportability of the server is achieved with specific hardware components selected for those characteristics by CLS technicians. For that reason, it is the one computer in the lab that Creative Learning Systems always supplies.

The server’s features are described below.

#### ***Network Operating System***

The server in a standard Creative Learning Environment uses the Windows 2008 Professional Server operating system, which has proven itself as function-rich, reliable, easy to maintain, and very conducive to cross-platform (Macs and PCs) networking.

#### ***File Storage and Security***

All documents created by learners and facilitators are saved to and stored on the lab server in specially designated folders. Facilitators and administrators can secure these folders in any way they see fit.

#### ***System Administration and Recovery***

Creative Learning Systems provisions the server with everything it needs to survive crashes with data intact.

- **Drive Redundancy:** Drive redundancy allows the server to continue running even if one of the hard drives crashes.
- **Drive Backup:** The server has a complete drive backup and restoration system that is effective and easy to maintain. It includes a 1 TB hard drive, and a pre-defined backup schedule.

- **Recovery Image:** After we install and customize the server for the Learning Environment (with specific printers, folder structure, and security model), our installers create an image of the server that can be used in the event of a crash to restore the server back to its known-working, post-installation state.
- **Web Servicing:** Easy-to-maintain Web server software is built in to the server. It can be used with any of the Web-based content learners and facilitators create. In addition, Facilitators can create an Intranet for learner support materials and individual home pages, where learners can post portfolios and other content.
- **Remote Administration and Support:** Software and hardware components allow CLS support staff to access the server remotely over the Internet for customer initiated remote desktop sessions. For further details on how this works, contact the CLS support team.
- **Content:** The server is pre-configured with a rich supply of technical, facilitation, curricular, and environment-management support resources.

#### Client Computers (CLS Supplied)

Client computers are the machines at each learning station. The client computers are powered and networked through jacks in the recessed panel of the pylon at each island or from the wall as specified on the electrical and data layers part of the plan view drawing (Attachment D). Each station's software configuration provides specific functionality, which in turn provides the foundation for rich learning experiences.

- **Attachment B: Customer Purchased Software Specifications** - Microsoft software specifications are part of the Computer Specifications.

#### Printers (CLS supplied)

Standard lab configurations include a workgroup, high capacity laser printer, and a high-quality, large-format, color ink jet printer. All printers are "network ready," meaning that the network line plugs into them directly so they don't have to be connected to the back of a computer.

#### Existing School Network and the Internet

CLS does not provide Internet connectivity. Most customers choose to connect the lab network through uplink ports to their existing school network to allow lab access to such network resources as Internet access. In a typical lab installation, the customer will provide a designated network port inside the lab that is directly connected to the school's primary network backbone.

All client computers are configured access the Internet, unless customers specifically request otherwise.

Network and computer configuration details, like naming conventions, IP addressing schemes, DNS server addresses, gateway/proxy server Addresses, etc., are coordinated between our installation team and the customer's on-site technology department representative.

### ***Important Security Information!***

*It is very important to note that CLS does not provide hardware, software, or protection strategies with regard to Internet security. It is the responsibility of the customer to ensure the computer systems in the lab are properly protected against all Internet threats, including virus infection and malicious compromise. CLS recommends that the school's technology department implement the same virus and firewall protection strategies in the lab as it uses campus-wide.*

**Attachments**

**Attachment A:**

Detailed List of SmartLab Deliverables

**Attachment B:**

Software Specifications

**Attachment C:**

Learning Launcher/Liftoff Challenge Curriculum Description

**Attachment D:**

Plan View Drawing

**Terms**

**PAYMENT TERMS**

Payment shall be made to Creative Learning Systems and tendered according to the following schedule:

25% of Purchase Price – due as deposit with submission of customer's purchase order

70% of Purchase Price – due upon delivery of factory-wrapped goods to customer's designated delivery location

5% of Purchase Price – due upon completion of installation

These terms may be modified as necessary due to district requirements.

**PURCHASE ORDERS:** Purchase orders must be made out to Creative Learning Systems. Facsimiles will be accepted *pending receipt of original purchase order* (Fax to 303-772-6422 Attention: Shelley Nault).

- See Page 7 of the Proposal for pricing details for each school

**SUPPORT:** Creative Learning Systems provides technical and pedagogical support via a toll-free 800 number. Our Facilitator Support Team telephone number is (800) 458-2887; the fax number is (303) 772-6422.

**WHOLE UNIT:** The instructional plan for this Learning Environment is based on the inclusion of all of the fixtures, equipment, courseware, and supplies listed here. This Proposal is a complete system, and is offered for purchase only on a whole-unit basis.

**SUBSTITUTION:** Creative Learning Systems attempts to provision each of its learning environments using up-to-the-minute technologies and the most effective learning resources available at the time of implementation. We therefore reserve the right to make equivalent or better substitutions for item(s) described or implied herein.

**PROJECT TIMELINE:** Delivery, installation, and training dates are scheduled based on resource availability and in consultation with district and/or school representatives. Please plan on typical lead times of approximately eight (8) weeks from receipt of purchase order, depending on the degree of customization, availability of materials and supplies, and seasonal demand. When we receive your purchase order, we will work with your designated representative to determine suitable delivery, installation, and training dates. Installation typically takes one to three days. Professional development and technical training may be scheduled immediately thereafter. Time is of the essence in the execution and fulfillment of this agreement and each party agrees to use its best efforts to carry out its obligations and responsibilities as stated herein.

**OTHER TERMS AND PROVISIONS:** Receipt of a valid Purchase Order referencing this proposal will constitute agreement with each of the terms stated herein. The State of Colorado shall govern the interpretation of this agreement, and it is expressly understood that Boulder County, Colorado, is the exclusive forum for any disputes arising under this agreement. Any expenses incurred in collecting past due accounts, including court costs and attorney fees, shall be added to the amount due. Please note that photos appearing in this proposal represent sample configurations and are provided for general information only. Please refer to written descriptions for specifications of equipment to be provided under this proposal.

**SIGNATORY PAGE:** Photocopy this page, execute, and attach to Purchase Order(s) prior to mailing.  
**Read, Agreed to, and Signed by:**

Approved Customer Representative:

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_