BALI ISLAND SCHOOL for a World-Class Education

International Baccalaureate Organization (IB) World School: Authorized IB Diploma, MYP, PYP Accredited Member of the Council of International Schools (CIS) Accredited grades PS-12 by the Western Association of Schools and Colleges (WASC)

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Overview

In a world where many employers expect computer mastery from new employees, and universities commonly require freshers to arrive with their own computer and computing skills, the 1:1 laptop program is a logical and vital component of Bali Island School.

BIS's online resources, including Google Apps for Education and ManageBac, and its comprehensive network support system all combine to place truly remarkable tools in the hands of the BIS educational community.









Through this initiative, previously impossible opportunities for communication and outside learning are immediately available. Everyday exposure to laptop technology will help our students develop work habits and research skills that are second to none.

For many schools, one-to-one education represents the ultimate in technology infusion. At Bali Island School, we see a 1:1 laptop program as a paradigm shift in how instruction is delivered. While the program seeks to provide hardware and software, the rationale focuses on the outcomes, the elements of teaching and learning that are enabled by effective technology tools. For example, this program will allow us to further utilize Web 2.0 tools to provide students with enriched real world learning experiences.

The use of laptop computers makes "anytime, anywhere" learning possible in a way that standard approaches to education cannot.

"The changing information landscape of the 21st Century demands that our students develop new skills of information literacy and become knowledge producers as an integral component of their learning."

—Graham Wegner

Laptop Requirements and Expectations

At BIS we do not require a specific operating system (Apple, Windows, or Linux) or manufacturer brand, but we do require a minimum level of capability, security, and function. Please see below for details:

- **Capability** A well cared for laptop can function effectively for three or more years. As a minimum, we require:
 - The ability to run the latest version of Chrome.
 - An Office Suite installed Either Microsoft Office (2008 or above requires paid license) or LibreOffice (free)
 - A minimum of 4 hours battery life.
- **Security** For windows machines Antivirus protection is required. For Apple machines a Malware removal tool is required. We recommend:
 - Avira Antivirus free for personal use.
 - Malwarebytes Anti-Malware for Mac free for personal use.
- **Function** The laptop hardware must be in good condition, with screen, keyboard, touchpad, speakers, and other essential components present and functioning correctly. It is expected that you will treat your laptop carefully, and get it repaired promptly if it has technical issues. The BIS technology department is able to perform basic software support, but repair of hardware issues are the student/parent responsibility.

Software Licensing

Bali Island School has made a commitment to use legal software. Software piracy is illegal. It is expected that all software that you use for school-related activities is fully licensed.

Program Mission, Vision, and Goals

Mission

Bali Island School provides a learning environment that embraces the use of today's dynamic technology. The laptop program ensures that students and teachers have access to technology that will promote and enhance education, communication, and collaboration skills by providing laptop computers and wireless access to the campus network.

Vision

The vision for the wireless laptop program is to create a dynamic and collaborative educational environment that enhances teaching and learning, creativity, communication, and global connectivity.

Goal 1

Enhance and extend teaching and learning by providing each student with full-time access to local and global resources.

Rationale

Laptops personalize technology integration. The appropriate use of this technology tool extends learning to create "real" opportunities to gather, analyze and interpret information from local and global resources, and provides the opportunity to share this new learning with global audiences in a timely and efficient manner.

Goal 2

To effectively merge the learning environments of home and school, creating a stable and reliable work environment.

Rationale

A major obstacle for effective technology integration is the incompatibility of files created at home and at school. Laptops allow students to work in the same environment at school and at home providing a learning environment that supports productive work habits as well as enabling additional time to be spent on learning tasks.

Goal 3

To enhance teaching and learning by enabling the integration of technology into every course maximizing student engagement and skill development and facilitating additional learning experiences.

Rationale

Laptops allow teachers to expand the range of learning experiences for students. By making available additional interactive learning activities, self-paced resources and global and local resources teachers are better able to differentiate the learning experiences for students. In general terms, these experiences increase student's technology and information literacy skills and aBISt in producing students who possess 21st century skills.

Goal 4

To provide an atmosphere that fosters teacher experimentation and innovation in exploring the integration of technology applications to enhance and extend their curriculum.

Rationale

A supportive environment is important for teachers as well as students. Teachers who effectively accommodate new resources, ideas or practices create superior learning opportunities for their students.

Benefits Of A Student Laptop Program

- Rapidly advancing technology has led to very powerful notebook computers priced at attainable levels.
 Schools that help their students and teachers harness the information processing power laptops provide will place their students at a competitive advantage. Students will be more engaged in learning the content of the curriculum while at the same time developing deep competency using the problem-solving environment provided by the computer.
- 2. Laptops help promote a positive shift toward more project-based, hands-on learning, away from teacher directed learning. Teacher directed learning will not and should not disappear. However, the information manipulation environment provided by laptops allows teachers to move to a facilitative instruction design.
- 3. Writing is done across the curriculum. Word processing software makes writing a significantly more enjoyable process for students. Students will do more writing and revision when they have laptops.
- 4. Mathematics education can be made much richer and engaging by helping students explore math with the aid of software tools like spreadsheets, GeoGebra, Autograph, Mathematica, Maple, etc.
- 5. History, social studies, and current events instruction can be tremendously enriched by students having immediate access to the vast wealth of information available on the Internet. Laptops provide the environment for the presentation and creation of multimedia rich descriptions and analyses.
- 6. Science education can be greatly enhanced by the data gathering, data analysis and simulation software tools that run within the digital workshop the laptop provides.
- 7. Foreign Language instruction success correlates highly with the time students are able to spend in immersive environments. The multimedia capabilities of laptops allow students to spend more time listening and speaking in the language of instruction. With the right software, and a set of headphones, a laptop can function just like a language lab workstation. Laptops also provide access, through the Internet, to the media of the countries where the language of instruction is the native language.
- 8. In art, music and drama laptops provide easy access to examples of best practices. Students can visit virtual museums, listen to music clips, and watch videos of great performances. Students can also use computer software to assist in the creation of artwork, music, scripts and digital video.
- Laptops can provide easy storage and access to a student's accumulating body of work. By viewing previous work students can better gauge their own progress and avoid repeating tasks already accomplished.
- 10. All students develop a strong competency in using computers. Providing laptops to students goes a long way toward eliminating any future digital divides in the use of technology.

Even informal studies of laptop use in schools have identified an increased student enthusiasm as one of the program outcomes. This anecdotal evidence was confirmed in a study of middle school students participating in the Maine laptop program (Silvernail, 2004). Over 12,000 students returned surveys in the first semester of 2003. Students indicated their level of agreement with a list of statements about laptops and school.

The results are extremely positive about laptop use in school:

- 80% "I would rather use my laptop"
- 80% "I am more likely to edit my work with a laptop"
- 75% "Laptops help me be better organized"
- 70% "Laptops improve the quality of my work"
- 70% "I am more involved in school with a laptop"
- 70% "I do more work when I use my laptop"
- 70% "Laptops make school more interesting"

The most important and consistent finding in the research is that the critical factor in the success of a school laptop program is the extent to which it is embraced by the faculty. The ideal program model appears to be one where laptops and training are provided to faculty members, in advance of the student population.

Research

The Research Is Clear: Today's Students Are Growing Up In A Digital Environment

Twenty-first century kids are digital kids. They learn differently than children did even a few years ago and expect anytime, anywhere access to Internet-based information systems and electronic communication tools. As we move towards a program that integrates technology into all aspects education at BIS, we recognize the growing need for students to have portable computing tools (such as laptop computers) and flexible Internet access.

According to the United States Department of Education, 90% of children between the ages of 5-17 use computers and more than 90% of students in the 12-18 age group use the Internet. These students are readers and enjoy a learning environment that includes teamwork, technology, multiple focal points, action and interaction, movement, and materials that are visual and dynamic. They expect to receive frequent and instantaneous feedback and to learn skills and concepts that will help make their working lives less stressful and increase their marketability (Blake, 2003).

If technology is core to such an environment, then all students and staff must use electronic resources daily so that accessing, transmitting, and gaining information becomes a habit of mind, not an occasional computer lab experience, pastime or "fill in."

Computers aid significantly in the development of research skills, writing and critical thinking and foster curricular integration through inter-disciplinary projects. Studies document that the use of laptops in an "anywhere, anytime learning" program increases overall motivation and interest in school, and provides enhanced learning opportunities for students.

After more than 10 years studying laptop computing in schools, Rockman (2003) concludes that one of the most important benefits of a laptop program is an increase in skills that are deemed necessary for the 21st century. Rockman argues, "Developing the ability to learn independently, collaborate with peers to accomplish work, and communicate the conclusions of your work are the core of 21st century skills, and a highly valued set of competencies in the world outside of school. These accomplishments are seen in many laptop programs, especially those that permit students to take their computer home in the evening."

Generally, these 21st century skills are identified as information and communication skills, thinking and problem-solving skills, and interpersonal and self-directional skills. To be successful we must infuse these skills into the curriculum, not to make up an additional course but rather to be "integrated" within the traditional curriculum to create authentic learning opportunities.

Q1. Why did BIS decide to implement a laptop program?

A. The increased use of technology has emerged as an important part of life in education, and in the world. Laptops make it possible to bring this learning power to individual students in their classrooms and homes, allowing for greatly increased access to information and learning opportunities.

BIS's fully wireless campus allows students to connect to the school's network and to the Internet all over campus at any time. Our students live in a world in which familiarity with technology, computing, and their connection to learning is expected and common place.

Q2. What happens if the student's laptop is not working properly?

A. If the student's laptop is not working properly, they should take it to the IT office. Our staff will try to diagnose the problem and, depending on the nature of the problem, help the student to troubleshoot it.

If the laptop needs hardware repairs, the student is responsible for taking the necessary steps to get it repaired as quickly as possible. BIS has a limited pool of loaner laptops that students can use, but only in case of need.

Q3. How often will the laptops be used?

A. The laptops are a tool to support learning. Teachers will determine when using the laptop is appropriate. However, technology will not be used simply for the sake of it. It will only be used when and where appropriate – therefore in situations where it enhances and extends the learning process.

Q4. Will the laptops be used in all classes?

A. The laptops will not necessarily be used in every class that your child attends every day, but they will be used within all subjects. The success of a 1:1 laptop program is not the computer being used "a lot" but computers being used where appropriate to improve learning.

Here are some examples of how laptops might be used in class:

- Access to a wider array of interactive resources and information other than that which a teacher and a book provides in a traditional classroom.
- The ability to quickly download digital materials from the BIS-provided online resources, thereby saving the time, expense and waste of paper.
- The ability for students to expand the walls of their classroom and include other students and experts in the field through online educational discourse.
- Ready access to powerful communication tools (video and podcasting, for example) through which students can demonstrate their understanding.
- The ability to directly upload data from their heart rate monitors in P.E. class and import it into graph making programs giving them a visualization of their progress.
- The ability to simultaneously write documents with students through the use of online tools providing the ability for peer-editing of written work.

Q5. Will students be allowed to use the computer all the time in class?

A. Use of the computer in classroom settings will be at the discretion of the teacher.

Q6. What happens if my child is better at learning with pen and paper?

A. Certainly pen and paper learning will not go away right away, or perhaps ever. Certain subject areas require pen and paper (such as Math) where inputting the symbolic notation is overly cumbersome. One of the key advantages to pen and paper has always been the ability to annotate and comment in the margins. With assignments teachers could write comments, underline and correct mistakes and then hand back to the student.

However, all of this annotative ability is present in modern software applications as well as other annotative capability such as audio or video annotations.

Annotations with pen and paper can also be powerful for active reading. Research has shown that underlining, paraphrasing and commenting whilst reading text can help readers with retention and understanding. However, currently many of the resources we give students such as textbooks and literature cannot be annotated as they need to be preserved for future students. Thus in these cases digital resources will prove a distinct advantage.

With digital resources students always retain the right to print things out if they prefer not to read from the screen, and many resources will continue to be in book form for some time to come.

Q7. Can I use an Apple/Windows/Linux computer for the BIS 1:1 Laptop Program?

A. The main requirement for the BIS 1:1 Laptop Program is being able to fully utilize the Google Apps for Education platform. We recommend using the Google Chrome web browser, which is available for Apple Mac OSX, Microsoft Windows, and Linux environments.

Wherever possible, the BIS IT Department will recommend software that is cross-platform, or at least a viable alternative for each platform that students use. One of the goals of the program is to encourage students to become independent, proficient technology users, and they are ultimately responsible for selecting appropriate, legal software that will allow them to meet the educational goals and collaborate with their peers.

Q8. Can I use an iPad/Android tablet for the BIS 1:1 Laptop Program?

A. BIS expects students to bring a full-featured laptop in order to meet the goals of the 1:1 Laptop Program. Students can bring a tablet device in addition to their laptop if they wish, but this is not required or expected. We believe that current restrictions in sharing data across applications in tablet devices present important barriers to achieving the educational goals of the BIS 1:1 Laptop Program.

Q9. What about printing?

A. BIS students are allowed to use school resources for printing, when required by their teachers. The BIS IT department monitors the amount of printing that is done through our network, and will take action if the school resources are being misused.

Q10. What is the appropriate use policy?

A. BIS expects students to follow and respect the Acceptable Use Agreement. This document can be found on the student website, and it is provided to students during the admissions procedure.