LEAP Academy at Green School Bali

Process Manual

A guide for immersive, experiential and authentic project-based learning

Tables of Contents

Getting Started

Manual Overview

Green School is a community of learners with a mission to help make our world sustainable. The Green School Way is our curriculum.

This manual outlines Green School's LEAP Academy programme, exploring what it is, why it's important, and how it works by sharing its process. To help facilitate the understanding and implementation of LEAP, we have also provided numerous resources, tools, strategies, and activities used in the programme.

To get some visuals and immerse yourself in student and educator stories about the programme, please visit the LEAP Academy website: http://leap.greenschool.org/

To hear student and educator narratives, please explore the blog: http://www.medium.com/leap-academy

Definitions:
LEAP Academy: is an immersive six-week long community oriented project-based learning experience hosted by Green School Bali
LEAP: the approach used by the LEAP Academy which can be modified for diverse learning situations

This manual was prepared on behalf of Green School Bali and the Green School Foundation, by Charlotte Fesnoux (July 2018). Photos courtesy of LEAP Academy.

Theoretical Context

In the famous TED talk by Sir Ken Robinson (2006), Robinson states that education systems around the world have failed to prepare students for an uncertain future. Students must now learn *how to learn* while responding to endlessly changing technologies and worsening global conditions (Barron, 2008). In response, educators and institutions across the globe are increasingly seeking alternative approaches to learning that provide students with the tools necessary to navigate and mitigate these challenges.

Experiential pathways such as project-based learning (aka. PBL) are gaining attention as a means to benefit the learner while also having a positive impact on the community (Hutchinson, 2015). Social anthropologist, Jean Lave argues that learning is situational and occurs within a context or activity, and often through social interaction and collaboration (David, 2007). In this way, knowledge is explored in authentic settings (David, 2007), and is given meaning through application. This "learning by doing" was also advocated by influential and progressive educator and philosopher, John Dewey (Efstratia, 2014), and has shown to have a profound and long-lasting impact on the learner (Hutchinson, 2015). Project-based learning has been discussed in research as one of the most effective teaching frameworks by demonstrating that students learn more deeply and have better understanding if they are involved, and that involvement has the most impact on student achievement than any other variable, including student background and prior knowledge (Barron, 2008). The notion that PBL is superior to other methods of learning is further backed by countless studies that show that PBL increases students' abilities to think critically and creatively, plan projects, define problems with clear arguments, as well as to improve motivation, attitude towards learning, and work habits (Barron, 2008). Additionally, when students in PBL programmes have undergone standardized testing, they performed equally well as those who were in conventional classrooms (Barron, 2008). The 'real-world' problems PBL focuses on capture students' interest and excitement, increasing intrinsic motivation (Rogers, 2014) and later engagement in similar ventures (Efstratia, 2014).

The emphasis on collaboration common in PBL has also been shown to have widespread benefits. Hundreds of studies have been conducted on cooperative learning and all have arrived at the same conclusion - there are significant advantages to working with others on learning activities (Barron, 2008). When solving problems, teams outperform individuals, and individuals who work in groups tend to do better later on, on individual assignments (Barron, 2008). Beyond the academic achievements, research also shows that cooperative group work improves individuals' interpersonal skills (Barron, 2008), with the possibility to positively impact the wider community.

In regards to the advancing problems in our society and environment, Hursh (2010) states that we no longer have the liberty to sit back and be passive observers, but rather we must act now. He argues that the solutions for sustainability cannot be found in a textbook, but instead students, educators, and community members must seek the answers by asking essential questions and through active engagement (Hursh, 2010). Schools can be reimagined as more than just places for education, but as ideal resources (Hursh, 2010) where students can play a meaningful role in their community.

Although PBL has proven to be extremely efficacious and provides numerous benefits for both the community and the learner, educators are finding it difficult to implement, thus limiting its effectiveness (Hutchinson, 2015). First, there is a common misconception that PBL is unstructured and 'hands-off, which often leads to unproductive learning experiences where students do not receive the necessary support and assessment as the project develops (Barron, 2008). Additionally, the change in role and responsibilities brought forth by PBL presents educators with new challenges, such as project management, facilitating collaborative learning, community outreach, developing assessments to help guide the learning process, and illuminating key concepts in a multidisciplinary learning experience (Barron, 2008). These challenges are exacerbated by a lack of resources and support for the educator, further detering the use of PBL (Rogers, 2014).

To begin to overcome these hurdles, this non-traditional, messy and wall-less learning approach needs to be welcomed and supported by the community it exists within. All participants, including students and educators, administration and parents, need to be committed to this process, and embrace the changes brought by PBL. Educators may need to transform their educational philosophy, and shift their educator role from teacher to facilitator (Rogers, 2014), employing strategies used in the "real-world", such as design principles and various organizational tools commonly used in business (Hutchinson, 2015). However, even the most competent facilitators may find implementing PBL difficult without the support of their learning community (Rogers, 2014). Administration is an essential element to ensuring that educators have the time, space, and academic flexibility and freedom to implement PBL to its fullest potential, allowing students to dig deep and fully immerse themselves in the experience.

LEAP Academy

Life is a series of projects. These projects can be any size and have varying impacts on the fabric in which they exist. Some are carried out by the individual, and others require collaboration. Complex projects require diverse people with diverse strengths.

Project-based learning (PBL) is a method of education that involves completing projects that result in a realistic product or presentation (Barron, 2008), and places student inquiry and active involvement at the centre of learning. Through this, learners encounter key concepts and practice critical skills applicable to real-world problems. Due to the many merits of this approach, schools around the world are increasingly practicing PBL in diverse ways. At Green School Bali, every class and learning neighbourhood unpacks PBL, but the LEAP Academy has taken this practice to a whole new level.

LEAP - *Learning through Experiential and Authentic Processes*

LEAP Academy is an immersive and authentic learning experience where students are freed from their regular course schedule for six weeks and engage as a group on real-world projects. Its wall-less[1] design takes students outside the classroom and into the community, collaboratively working through the emergent[2] process of investigating and responding to a problem or challenge. Through this, LEAP sees challenges as opportunities where students learn from one another and alongside their facilitators who are regarded as expert learners[3]. It is naturally interdisciplinary, and provides students with multiple layers and diverse facets to explore and engage. This rich learning landscape allows each student to flex their unique skills while building and practicing new ones. LEAP's holistic approach aims to engage the whole person in an academic, emotional, and physical experience, and encourages students to reflect on what they are doing and why it matters.

The programme began in 2015 with a group of nine, multi-age high school students. Since then, its positive impact on student learning and the community has precipitated its expansion to include LEAP for middle years (LEAP Junior), and it is continuing to be modified for other Green School programmes and courses.

[1] Wall-less Education: learning that is not confined to the classroom and can take place anywhere and at any time
[2] Emergent Learning: learning that takes shape as the process evolves, and is unique to the interests and skills of the
[2] Emergent Learning: learning that takes shape as the process evolves, and is unique to the interests and skills of the students
[3] Expert Learners: learners who have mastered the art of learning how to learn

Rationale

LEAP contributes to the Green School Way by creating a more sustainable world and engaging an entire community in the learning process.

LEAP and the Community of Learners

LEAP teaches students **how** to think, not **what** to think. Rather than a transfer of knowledge from teacher to student, in LEAP students are involved in praxis[4], where they learn by doing – acquiring new knowledge through experience, and then applying that knowledge in a problem-solving context. Through this, students develop the skills essential to become lifelong learners, while also exercising those that will help them cope in our rapidly changing world.

LEAP teaches students *how* to think, not *what* to think.

Educators, staff, parents, and other community members also have the opportunity to work and learn alongside students throughout the entire LEAP experience and process, from project pitches and sharing knowledge and skills, to project implementation and upkeep. This benefits all while providing opportunities to participate and engage in sustainable community initiatives. Following is a list of some of the ways LEAP benefits those involved.

[4] Praxis: "a process where a group works together through cycles of action, reflection and further action to improve a situation" (TRC/AWEA, 2008, pg. 1)

LEAP:

- Is **messy**[5]! - we explore, engage, question, play, test, and reflect through our experiences
- Cultivates **good citizenship** - students have the opportunity to affect positive change in their community by using the lens of sustainability
- Promotes **student-centred** learning - students are given a greater degree of autonomy and initiatives are student-driven
- Is **inquiry-based** - places students' questions, ideas, and observations at the centre of learning
- Celebrates and activates all **learning styles** - there is room for all types of learners to participate and engage, whether you are visual, aural, verbal, physical, logical, social, or solitary, or a mix - there is a place for you!
- Naturally lends itself to **differentiated** instruction - it's collaborative, student-centred, and allows each student to set their own personal goals. Furthermore, students have *choice* in how they want to demonstrate their understanding and share their learning journey.
- Is **relevant** and **meaningful** - the student directed process gives students a sense of ownership and purpose
- Is **interdisciplinary** - the project-based design naturally calls for an interdisciplinary approach
- Focusses on the learning **process** - this approach supports the **growth mindset**[6] and encourages

[5] Messy Learning: organic and non-linear learning that involves divergent thinking and experimentation, typical of informal learning experiences. Supports flexible and adaptable thinking.

creative thinking and risk-taking. It is about the journey, not the destination.

- Embodies **situated learning**[7], giving meaning to knowledge

- Develops a myriad of **21st century skills**[8], including: collaboration, communication, critical thinking and problem solving, creative thinking, systems thinking, adaptability and flexibility, reflection, planning, digital literacy - to name a few!

- Is **experiential** - students are active participants in the learning process, not passive observers. This stimulates original thinking, and develops thinking strategies and skills that cannot be derived from a textbook or lecture.

- Builds strong, lifelong **friendships**

- Includes **parents** in the process - this allows parents to learn alongside their children, share their expertise and skills, and promotes multi-generational learning

- Provides **freedom and flexibility for educators** - like their students, educators can explore what they are passionate about, while also having the freedom to try new things and dig deeper

- Builds deeper **educator connections** - educators connect with their peers and students in new and meaningful ways

- Fosters **community cohesion** among all participants working towards the same goal

[6] Growth Mindset: the belief that you can improve your most basic abilities through dedication and hard work. The Growth Mindset is a learning theory developed by Dr Carol Dweck.
[7] Situated Learning: learning occurs through the activities, context and culture in which it is situated (David, 2007)
[8] 21st Century Skills: comprise of competencies and skills that have been identified as requirements to thrive in today's world

LEAP for Sustainability

LEAP also has the potential to have real world impact. By designing projects to meet the needs of the local community, students can be active participants in making positive change towards a more sustainable world. Project sustainability is examined when a project is being selected, and is monitored throughout the entire process. Final assessment of the project includes how it has met its sustainability goals. As part of the requirements, all LEAP projects must benefit the community in which they exist.

To help frame project sustainability, LEAP uses the Sustainability Compass model developed by the AtKisson Group (1997). The Sustainability Compass provides a simple yet robust lens that can be used to understand systems and identify relationships among **nature**, **economy**, **society**, and (personal) **wellbeing** in connection to the project.

Figure 1: The Sustainability Compass. Reprinted from About the Sustainability Compass, in *Compass Education, AtKisson Group*. Retrieved March 2018, from http://www.compasseducation.org/about/. Copyright by Green School Bali. Reprinted with permission.

Figure 2: The Sustainability Compass. Green School Bali, 2018.

LEAP and the Green School Way

Green School Bali educates for sustainability through community-integrated, entrepreneurial learning, in a wall-less, natural environment. Green School's holistic, student-driven approach inspires and empowers the growth of green leaders, and is guided by the following REAL principles:

Relationship-centred: Green School prioritizes and sustains relationships between all learners, their environment, and their community; Our programmes are holistic and engage the whole person including social-emotional, intrapersonal, intellectual and kinaesthetic connections.

Experiential: Green School's framework for learning supports experimentation and reflection on successes and failures; Green School anticipates and adapts to the evolving needs of learners, their environment, and community; change happens in a sustainable way.

Authentic: Green School prioritizes interconnected experiences driven by real-world needs and the prospect of a sustainable future; The world is a diverse and complex network of systems, and our programme, community and environment embody an integrated, systems-thinking approach.

Local: Green School acts locally first; we immerse learning in our immediate surroundings, culture and community and then we think globally.

(Green School Way Foundations, 2018)

LEAP and Green School Skills

The GSWay is epitomized in the LEAP programme. It is wall-less, community integrated and authentic experience which seeks to strike a balance between messy learning and providing enough structure to ensure that the experiences are relevant, safe, accessible, and fun. In LEAP, students are empowered by being in control of their learning with passion and purpose, and look to the local - environment, people, resources, for guidance when designing and implementing their projects. As such, students are not confined to the classroom, but rather the world is the classroom.

LEAP perfectly aligns with all of the Green School Skills, in which students:

- Build off each other's strengths and collaborate as a team
- Think in systems, using the lens of sustainability to design and assess projects
- Develop personal and interpersonal awareness through reflection and dialogue
- Communicate with each other and their community, and share learning experiences with the world
- Think creatively and critically in the process of problem solving
- Adapt to the unexpected challenges and changes that are common in real world projects
- Take action through community engagement and project implementation

Key Questions

LEAP is a holistic, student-centred learning approach that develops the skills integral to the student's future, while also benefiting the community. But how does it work? What are some important considerations? How does LEAP strike a balance between messy-learning and structure? What is the role of the educator?

Below are some key questions that highlight what LEAP is all about.

*What is **immersion** and why is it important?*

One factor that really sets LEAP apart from most PBL experiences is that it is immersive. LEAP is a 6-week long programme where a group of students learn and work together all day, every day, on a project. Its duration and intensity allow students to become very familiar with each other while also providing them ample time to explore and dig deep into their project. However, it is also important to note that because of this, days can become long if not properly planned and organized.

Although LEAP can be modified to work within the confines of more restrictive schedules, it is most effective when it is immersive. When planning a LEAP experience, it is important to take this aspect into consideration.

*What is **collaboration**? How is this accomplished?*

Collaboration is a critical element in LEAP. Students work as a team by recognizing, appreciating, and building off and onto each other's unique strengths with the aim of reaching a common goal. This is done by first establishing a **sense of community** in which all members are considered equals and have a place to speak and to be listened to. In the first week of the programme, students engage in various community building activities, where they become familiar and comfortable with each other. Bonds are created, and deeper understanding between members is founded. Throughout the programme dialogue is facilitated, whereby ideas are shared and explored in an open and welcoming platform. Students are encouraged to suspend their judgement, listen to understand, and seek common ground. This method of conversation is essential to making sure all members are heard and can play an equal role in the collaborative process of LEAP.

*How is project **scope** defined?*

Project scope must be carefully considered by the group to ensure the project's success. **Scope, time,** and **cost** are the three constraining factors. Change to any one of these factors will impact the others. Keeping

these in mind can help a team make effective and realistic decisions. In LEAP, these three constraints can be determined by the following factors:

- **Programme type** - more intensive, longer programmes allow for greater project scope and depth
- **Location** - the location and community where the project takes place/is implemented may influence what types of projects are possible. For example, projects that take place at Experiential Learning Centres may be limited to the needs of that site.
- **Group size and age range** - generally, older students and larger groups have the potential to take on more complex projects.
- **Available resources** - resources, such as capital, may limit what is possible
- **Student choice** - ultimately it is the students' choice which project they decide on. Although teachers can shed light on the feasibility and/or practicality of various ideas, if a project meets the criteria set by the location and meets sustainability considerations, then it is fair game!

*What is **sustainability**? How is it accomplished?*

Sustainability is the ability to make a world that works for all. This is done by balancing the areas of sustainability, which consist minimally of the "three pillars"[9], the environment, society, and economy. If any one pillar is weak, then the system as a whole is unsustainable. At Green School, sustainability is a primary focus in which all ideas and projects are processed using this lens. When choosing a project in LEAP, students must analyze their project through a sustainability lens (e.g. Sustainabiltiy Compass by Atkisson Group), ensuring that all areas of sustainability are considered and met, including personal well-being. The project is then designed and planned with this framework in mind. Furthermore, some projects require maintenance after implementation, and it is also the students' responsibility to plan for this.

*What is a **design process** and why is it important for LEAP?*

The design process is an approach for creative problem solving and provides a framework in which students can plan and activate projects. In LEAP, the design process moves through four main stages - picture it, plan it, do it, review it. It is best to think of this process as a system of overlapping stages rather than a sequence of discrete steps. Projects may loop back through the process multiple times as the group refines their ideas and explores new directions. This framework of working through a project emphasizes the learning journey, and provides students with rich experiences and skill-building opportunities.

[9] The Three Pillars of Sustainability : a model of sustainability that consists of three dimensions: economy, society, and environment. If any one pillar is weak, then the entire system is unsustainable.

This process is outlined in greater detail in "The Design Process: At a Glance" and in the "Step by Step" sections of this manual.

*What is **reflection**? How is this achieved?*

John Dewey once remarked that it is not the experience that we learn from, but rather through the reflection of it (Democracy and Education, 1916). In LEAP, students are expected to continually reflect on what they are doing, why it matters, and how it could be improved. This is carried out in a number of diverse ways. One example is that each day as a group, students are asked to share how their feeling about the project and what they are planning to do that day. Although this is primarily a time for students to share their thoughts, other students (or educator) are free to pose questions to prompt deeper reflection. Another example is the multimedia assignments that are given to the students as a means to share what the students are doing, while also providing them with another avenue for reflection. Over a six-week period, students are asked to only do three assignments. They can choose when they would like to do them, and in what form - written, video, podcast, etc. At the completion of the programme, students are asked to think back and reflect on their learning journey. There are numerous ways to structure the final reflection, but it is important to once again provide students with choice on *how* they would like to communicate their thoughts.

*What is the **educator's role**?*

In LEAP, educators are expert learners who facilitate student learning, gently guiding students through praxis. Educators learn and work *alongside* students to frame thoughtful questions, explore new ideas, and plan and develop meaningful tasks. Educators are also responsible for finding the balance between messy learning and structure, promoting dialogue[10] between students, and carefully assessing what students are learning throughout the process. As part of assessment, educators should provide ongoing and immediate feedback to the students. This can be done both orally and in writing (feedback for

[10] Dialogue: a conversation in which people think together in a relationship, with a willingness to listen being its core (Dialogue, 2011)

reflections). Although it is the group's responsibility to control the direction of the project, educators may want to oversee and adjust the timeline and scope as needed to ensure project success. Like the students, the educator should reflect on how things are going and how they could be improved.

To be an effective facilitator, educators should foster a sense of respect and trust between members of the group - including themselves, and should have a strong understanding of the PBL process and what it means to be a facilitator. This is explored in greater depth in the section, "LEAP for Educators".

The number of educators depends on the size of the group. For smaller groups (5-9 students), one educator is sufficient, and for larger groups (10-15), two may be necessary.

How does one find ***balance*** *between* ***messy-learning*** *and* ***structure****?*

This is an essential question, and one that requires continuous review to ensure that messy-learning and structure are balanced. On the one hand, life is messy; it is complex, intricate, complicated, and often confusing. Therefore it stands to reason that learning is also messy, and occurs organically, radiating in multiple and often unseen directions. At the same time however, learning follows a process - explore, engage, and expand. In LEAP, students are guided through the design process to help them effectively tackle a project. The design process acts as a framework that helps to scaffold learning. The educator nurtures learning through this framework.

To help facilitate this understanding, imagine a gardener nurturing a young plant, gently guiding it through a trellis with the aim to help it reach its full potential. The gardener is the educator. The plant is the student. And the trellis is the framework. Each plant is unique and will take its own path, growing at its own pace. Each needs support, some more than others.

How do students interact with the ***surrounding community****?*

In LEAP Academy, because projects focus around benefiting the community, it is essential that students are aware of the community's needs, available resources, and its challenges. The first step to gaining this information happens when project ideas are pitched to the group from the community. At Green School, the community would include the students, staff, faculty, and parents, as well as people in the surrounding area. After choosing a project, students should frequently engage with their community, seeking local expertise and knowledge. Furthermore, if the project requires ongoing maintenance, students

should work with the local community to ensure the project's continuation, post programme. This is a crucial factor to remember, as in some cases there is no benefit to the community if the project is not sustained.

Occasionally, students may have to cast their nets wider and reach out to individuals and/or organizations on a global scale. This is completely acceptable, but should be facilitated by the educator.

What needs to be considered for the different ***age ranges****?*

LEAP is an appropriate method of education for any age, and at Green School it is now offered to both high school and middle school students. Due to scheduling differences, LEAP is divided into two groups - high school (grade 9-12) and middle school (grade 6-8). However, these groupings still allow students of different ages to work together, breaking down the 'age-cages' so common in most classrooms.

For both groups the process remains the same, but facilitators should be aware that for younger students project scope may need to be scaled down, and they may need to provide more scaffolding, modeling, and guidance.

What is the ***optimal size for a cohort****?*

Cohorts may range from 5 - 15 students, with the ideal group size being 8-12. Groups need to be large enough to provide diversity - diversity of skills, personalities, ideas, worldviews, and human-power! However, groups should ideally not exceed 15 students, as smaller groups provide: increased opportunities to participate and share; more individualized attention and feedback; and an elevated sense of cohesion.

If there is a strong interest, it is better to have groups work in a modular fashion, with multiple pods working on their own projects concurrently, with only chance overlap of resources and activities.

The Design Process

At a Glance

Once a project has been chosen, students are guided through a design process, similar to those used when solving real world projects. The design process breaks a project down into more manageable steps, and can be used as a framework to guide students through project-based learning experiences. It is important to note however that prior to the design process, students are given time to develop group cohesion as collaboration is a key element in LEAP. This time also provides students with an opportunity to gain a better understanding of their wider community.

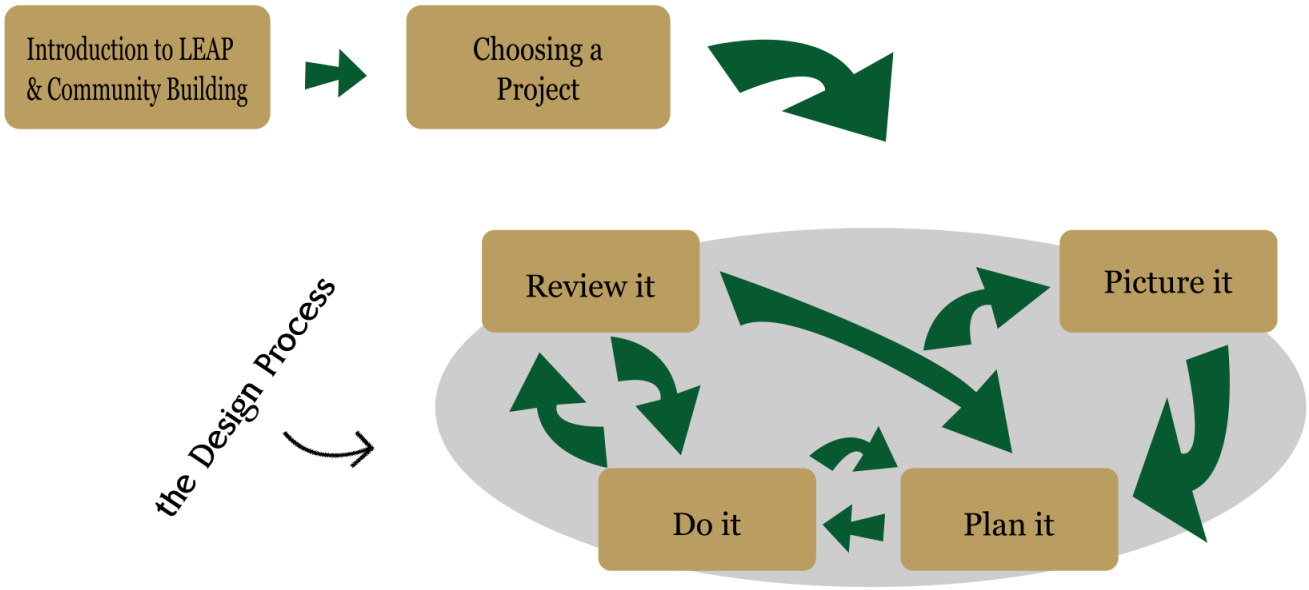


Figure 3: The main stages in LEAP, including the design process

1. **Introduction to LEAP & Community Building:** This stage is critical as it provides the foundation which the rest of the process is built upon. Expectations are set and students explore the meaning behind LEAP, why it is important and how it works. The group begins to establish their community by creating their work space and learning about each other through dialogue and play.

2. **Choosing a project:** After establishing a sense of community, students choose the project they want to focus their efforts on. A number of project ideas are presented by the students and the community, varying in degree of scope and depth. None of the ideas should be dismissed, but rather dissected and expanded upon. 'Project pitches' function primarily as inspiration to the students. Students are free to take on an entire project, or part of it. A project can also be modified and/or combined with another idea. It is theirs to choose! Allowing students to take lead in the selection process provides them with a sense of ownership and autonomy, and increases the prospect of deeper

engagement and excitement throughout. However, there are a few aspects that need consideration. These include:

Project scope: Is defined as the body of work, including tasks, activities and decisions that must be completed in order to ensure that project goals are met upon conclusion of the course. Scope depends on the size and age-range of the group, available resources and/or challenges, and the length and intensity of the programme. Ideally, projects should be multifaceted to provide students with enough areas to explore and skills to build, but should not be unrealistic in scale as to be impossible to complete with quality.

Sustainability: Students evaluate how the project might impact the environment, society and economy, ensuring it is sustainable.

Community: As part of meeting sustainability expectations, the project should somehow benefit the community it exists within (or where the group plans to implement the project). This includes the project's ability to be maintained after the programme is complete. Also, project opportunities are contextual and may vary depending on the community where the project is to take place.

As part of this stage, shortlisted projects will undergo a "project autopsy" in which they are dissected, modified, and analyzed (more about this in "Step by Step"). After careful consideration, one project is chosen.

The Design Process

After a project has been decided upon, students go through a series of "design process" stages, depicted below: 'Picture it', 'Plan it', 'Do it', and 'Review it'. Although the process generally follows this cycle, it is not fixed to it. Do not expect the process to be absolutely discrete, clear, and linear, but rather allow it to be messy and develop organically, often having to revisit certain stages, and with a pace that naturally ebbs and flows.

3. **Stage 1 - Picture it:** From the autopsy, students should have some idea about what their project might look like. Before honing their goals and project outline, they are encouraged to ideate all possibilities of what their project could be. To do this, students are introduced to concepts like "minimum viable product"[11] (MVP) - what the project would look like at its most basic, and "stretch goals"[12], which allow students to think and dream big. After exploring the range of possibilities,

[11] Minimum Viable Product (MVP): a development technique used to create the most basic version of a product with the purpose to provide value to the users while minimizing development costs. MVP also provides a base for further development.

[12] Stretch Goals: goals that encourage individuals to think big and creatively, and are used to inspire longer term innovation and action

students will refine their project using SMART[13] goal setting to strike a balance between MVP and stretch goals while also adjusting other aspects of the autopsy (e.g. sustainability, rough timeline, etc).

4. **Stage 2 - Plan it:** Building upon the previous stage, students will expand and detail their action plan. This stage typically requires more structure and educators may find they have to provide increased scaffolding, helping to guide students through the messy and often exhausting experience of planning. This can initially be overwhelming for students, and they may feel anxious as there are so many ideas, factors, and people to organize and consider. However, once they know what to expect, understand their roles, and have a routine, the process tends to flow more smoothly and organically.

5. **Stage 3 - Do it:** Now that all that work has been put into planning, it is time to get down to the part most people jump right into… doing it! However, all the work put into defining and outlining the project comes in handy when 'doing it'. The first steps outlined from the planning stage informs what should initially be done, and as time passes, the next steps should evolve naturally. As part of this stage, prototype, and reflect on how ideas came to be and the adaptations made/or need to made (eg. how things have changed). It is not uncommon to revisit the earlier stages - picturing and planning. The project's scope and/or goals may need to be adjusted, additional workshops and research may need to be carried out, and/or additional resources acquired. LEAP is about constant flux, flexibility, and adaptation.

6. **Stage 4 - Review it:** This is an essential part to any learning process and should be visited throughout the entire journey. By frequently reflecting on the process, both as an individual and as a group, students connect back to their learning targets and project goals - *What happened? So what? And now what?*. In LEAP, students reflect constantly - through morning check-ins, end of the day checkouts, ongoing class dialogues, multimedia assignments, and a final reflection at the end of the programme where students review their learning journey and the project itself. After the project has been implemented, allow enough time for project review and reflection, and for whatever loose ends need to be tied up. In LEAP Academy, this is typically one week.

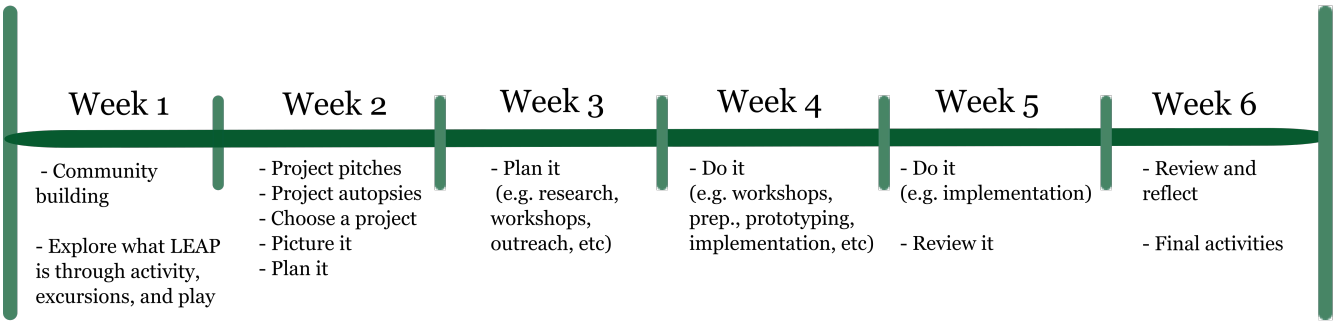


Figure 4: A typical timeline for a 6-week intensive LEAP programme

[13] SMART Goals: a mnemonic acronym that provides criteria to help set objectives that are: specific, measurable, achievable, relevant, and time limited

Introduction to LEAP / Building Community	
In the first week of a 6-week immersive programme, students will: • Be introduced to what LEAP is and how it works • Begin to form their community while being exposed to myriad of diverse activities • Become familiar with the communication platforms they will be using • Develop an understanding of what is expected of them throughout the programme	
Introduction to LEAP	Students will be able to: • Understand what LEAP is and how it works • Collaboratively organize and create a shared work space **Process:** One of the first things you will want to do in LEAP is introduce what it is and how it works. Although students should have some sense of what LEAP is coming into the programme, they may not know what to fully expect. This is best done by doing a mini-project in which they go through the process and experience it first hand, then reflect on it. Although this can be done through the use of a number of projects, the following activity is also great for building community. **First (mini-mission) Project: Setting up the space**   As the students will be immersed in the programme for a number of weeks, a good first project is setting up their space and making it their own. This activity builds collaboration skills, communication skills, helps to develop a sense of community, and provides a sneak peak into what LEAP is all about. It can be organized and facilitated by using "Six Thinking Hats" Another good activity to get students to think about how LEAP works is by asking them to design and share their own "Passion Project"

	Calendar Early in the process is a good time to collectively create a shared calendar so that students can begin to visualize what the next six weeks may look like, with specific attention to the first week - excursions, retreat, activities, etc. This should be a large, physical calendar (ideally magnetic or canvas so notes can easily be moved), and should be placed in a prominent and accessible location. How it is organized will be up to the group to decide. 
Building Community	**Learning Outcomes:** Students will be able to: • Establish community • Understand why community is important **Process:** In tandem to the introduction of LEAP, community building activities should also take place. This stage is fundamental to the collaborative element of LEAP and so it is reasonable to spend some time here and to continually revisit it throughout the programme. The following activities seek to build familiarity, friendship and trust between the members of the group. Students also will learn what their peers' strengths and weaknesses are, and explore their own possible role(s) in the group. Typically for a 6-week immersive experience, the first full week is dedicated to community building. **Ice-breakers** - Depending on the group you are working with, there is a chance that not every student is familiar with each other. This is common in LEAP where students of different ages are in the same group. Ice-breakers are fun and simple activities that build familiarity between students. They can also be easily done while doing other, larger activities, such as going on excursions or retreats. Some examples include: • 2-minute Life History • Finding Common Ground **Excursions** - Getting out and experiencing new things allows students to open their minds to the diverse possibilities in and around their community. Excursions can be coupled with mini-missions or be simply a unique and fun experience. **Mini-missions** - Mini-missions are designed to build team dynamics, practice communication skills, learn how to delegate and practice leadership skills, and provides students insight on their peers' strengths. They also exercise students' organization and time management skills, and give them understanding on how to work with a challenge. Mini-missions can vary widely in type, and

	can take place at school, in the wider community, and while on excursions. • Sense of Place • Pot-luck **Retreat** - This is heavily dependent on what resources (time and money) are available to you and where you are located. However, a retreat is an excellent way to build community fast. Retreats allow students to identify as a community, and immerse themselves in a collective experience. Typically 1-2 nights is an appropriate length, depending on the distance.  If the resources are unavailable to venture off campus, an overnight on campus with the group can also serve as a meaningful community building experience. **Organizing group rituals** - Rituals, whether they are activities or strategies, provide the group with a sense of unity. Some can be organized by the educator - such as "Dialogue Circles" and "Check-ins" (see "Strategies"), and others are developed by the students. In LEAP, one group established "Magic Mondays" and another, "Wacky Wednesdays" - both which were weekly team building excursions and provided students with an exciting routine of going out on adventures. Some examples include: exploring waterfalls and caves, canyoning, snorkeling, going to a shark nursery, and unlocking an escape room.
Communication and Assessment	**Learning Outcomes** Students will be able to: • Explain the expectations of the programme • Describe how the programme is organized and how they will use various online platforms to communicate **Process:** Although students will drive the direction of the project, it is the facilitator's responsibility to manage the process and frame expectations for communication and assessment. Prior to choosing a project, students must understand what is expected of them in terms of deliverables, and through what medium(/media) they will communicate to access and share information.

Communication

Set aside a few hours to explore the following media with your students:

- Google Drive and Google Classroom - to share documents and links, send out reminders and other notifications, and assign tasks
- Slack - for instant messaging
- Medium (programme blog) - to share with the wider (global) community

Deliverables

Deliverables differ depending on the age range of the group and/or programme type. However, in all cases students are assessed on their engagement throughout the programme and on their reflections.

LEAP Junior (Middle Years)
Middle school students are expected to submit:

- 3 **Multimedia Reflection Assignments**
- 1 **Final Reflection** on their learning journey - what they learned, how they grew, challenges, next steps. This includes a self-assessment.

Multimedia Reflection Assignments
Three media assignments are to be completed throughout the programme where students reflect on an experience they had in LEAP. Students can choose when they do these assignments, and in what format. These are publically shared on the LEAP blog - unless otherwise stated. Some possibilities include:

- Written reflection (500 - 700 word)
- Photo journal (10 - 20 photos that tell a story)
- Podcast (5 - 10 minutes)
- Vlogs (2-4 minutes)
- Infographic

Notes:

- Students can choose to do all three the same, but are encouraged to change it up
- Students can work alone, in pairs, or in a group
- Students may come up with alternative modes of presentation, but must discuss with their teacher
- To get a variety of experiences, students are asked to sign up in advance in a shared Google Doc

LEAP (High School)
High school students are expected to submit:

- **Evidence of credits hours**
- 1 **Final Reflection** on their learning journey - what they learned, how they grew,

	challenges, next steps. This includes a self-assessment that outlines the skills they feel they most developed, and which credits they think they deserve and why. Students in high school, in particular seniors, must take their credit needs into consideration when engaging in LEAP. Students should have some idea of what credits they need prior to choosing a project. After a project has been chosen, students should tailor their engagement so they can meet their personal goals. More about this in the "Plan it" stage.

Choosing a Project

In LEAP, students collectively work on a project of their choosing. However, the project must be sustainable and must benefit the community in some way. Project selection typically takes place early on in the second week of a 6-week immersive programme.

Learning Outcomes

Students will be able to:

- Demonstrate how to collaboratively choose a project
- Identify and analyze important criteria when choosing a project

Process:

Allowing students to choose their project increases engagement and provides them with a sense of ownership and responsibility. To help ensure that the projects are community orientated and sustainable while also being realistic, the process of choosing a project happens in two parts:

1. Project Pitches
2. Project Autopsies

Furthermore, this approach helps to ensure that *all* students have an equal say in the matter.

1. Project Pitches (aka. Garuda's Nest)

To inspire students and to shed light onto the community's needs, members of the community are invited to pitch their project ideas. In Green School LEAP, this is known as, "The Garuda's Nest". The Garuda's Nest is a playful take on the format popularized by TV shows like "Shark Tank" and "Dragon's Den". However, rather than having an expert panel of entrepreneurs judge the various ventures, it's the students who choose and invest their time into the projects.

Steps:
Before the pitches:

- Providing ample notice, community members are contacted prior to the start of the programme and invited to pitch a project idea to the LEAP group. In the invitation email explain what LEAP is and provide any additional information about your specific programme (e.g. if it is theme-based, duration, age group, etc). Interested parties are asked to respond in a short email about their idea, describing what it is, how students could be involved, what solutions it may bring to the community. Note: Community members may include those from the school (staff,

faculty, peers, parents) and anyone else that the educator wants to include in the wider community
- Candidates are presented with available times to pitch their project. Ideally, all pitches take place on the same day, and should be 5-10 minutes in length.

On the day of the pitches:

On the selected day, the presenters come ready to pitch their ideas to the group. Some are formal and others informal. There are no set expectations, all ideas are welcome. Projects are often at varying levels of development. Some are just ideas, while others may be part of a larger project or already partially developed. It is up to the students and the educator(s) to choose an appropriate project.

- Prior to the pitches, prepare and set-up space. Present the students with a timetable of who will be presenting and their topic (e.g. Daniel Strom - therapeutic garden) and explain student responsibilities - to be active listeners, take notes, and to think about questions that will help them better understand the project and its possibilities (e.g. How much time is required? Is there any existing funding? What skills are required?). At this time it is also important to think about how to best set up the space so all members can be engaged. A dialogue circle is typically a good format.
- The pitches take the following format: Presenter comes, Pitch (5-10 min), Question period, Presenter leaves, Debrief (if there is time between pitches)
- During the question period, students should hold back on asking about details as that may be part of the picturing stage. Instead, ask students to write additional questions that come to mind and to (quietly) note on a scale from 0 -10 how much they liked the project.
- After all scheduled presenters have gone, encourage students to pitch their own ideas. They should now have a sense of what a presentation can look like and what to expect.

After the pitches:

- Debrief the individual pitches: What did you think about the project? What additional questions do you have? How practical is the project? What alternatives and/or modifications could be implemented to make it more practical? What did you think of the presentation/presenting style - was it engaging? Why?
    - Note: debriefs can also happen in between pitches if time permits
- After the project pitches, share a Google Form with all the projects listed and ask each student to input a rating 0 -10. Although this won't determine which project gets chosen, it may facilitate project elimination.
- Send heartfelt thanks to all participants for their contributions and share insight into the process of narrowing down our project. Email group management should be applied here (e.g. BCC, CC, etc)

2. Project Autopsies

After the pitches, creativity is at an all time high. Ideas bounce around and there is a desire to define a project

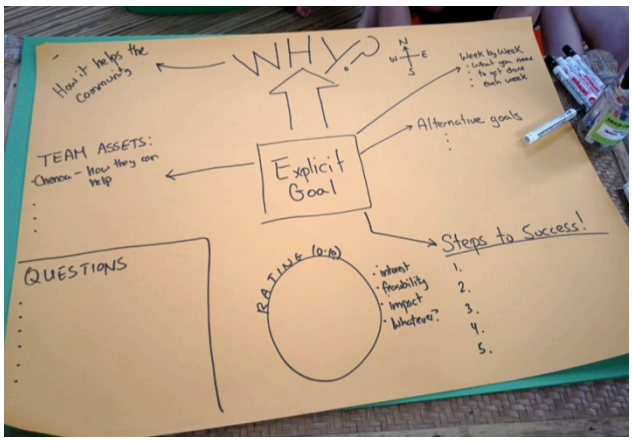
immediately. In order to avoid a premature decision, students go through a process that allows them to dissect each project proposal. “Project Autopsies” allow everyone to understand the nits and grits that would go into the execution of any one project, while thinking of which idea will put the team in the best position to succeed.

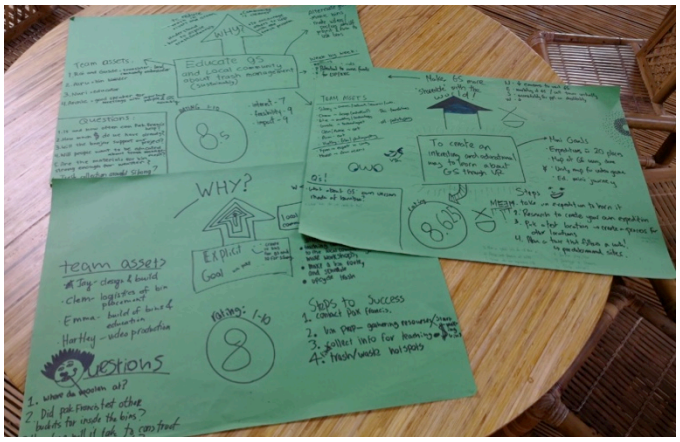
Part 1 - Project Eliminations:

- Using the Google Form data, the educator presents what students thought of the various projects. Through this, some projects can be easily eliminated.
- Using the data, discuss the pros and cons of the remaining projects. Facilitate this by asking students to think about the following:
    - Does this project interest / excite you?
    - How feasible is it?
    - What impact might it have?
- After students have had a bit more time to digest the projects, write the remaining projects up on a whiteboard and ask the students to come up and put a tick mark under their top three favourite projects. From this new set of data, choose the four most popular projects.

Part 2 - Project Autopsies:

Students should now have chosen a solid group of projects which they all feel confident and excited about (approximately 2-4). To perform the autopsies, students work in “Break-out groups”, with each group dissecting one project, OR with each group dissecting all of the final projects. This can be done on poster paper, whiteboards, or any other presentable medium that allows students to explore the projects.





Project Autopsy Guidelines include:

- Determine project goal - In one or two sentences define the project’s goal (use SMART - specific, measurable, achievable, relevant, time limited)
- Determine mini goals - List the smaller goals that are apart of the larger goal
- Project impacts - Why is it important? Who benefits? Use a sustainability lens.
- Learning Outcomes - What skills, new knowledge and understandings might you get through this project?
- Team Assets (roles) - What skills and roles can all members of the team bring? This also includes educators and other contacts.
- Steps to Success - Write a short list of things you will need to do and consider to carry out this project
- Weekly goals (think scope) - What might each week look like?
- Questions - What questions do you have about this project that would need answering?
- Rating (0-10) - Based on interest, feasibility, impact, as a group, rate the project.
- Addition (for High School): What credits will this project give you?

After answering all the questions for each project, students reunite as a larger group to present and discuss their thoughts about the projects. In the democratic process, students choose a project that best reflects the group's interests as a whole.

Notes:

- In LEAP, projects can be modified, scaled, and/or combined (this should be made clear in the email sent to the community).
- If one or two students are strongly against the chosen project, talk with them separately to discuss alternatives. Perhaps they could do a related side project that speaks to their interests and/or skills, or do something different altogether. It is important to address such situations early as students are much more likely to be engaged and invested in the project if they are interested in it.

The Design Process

The design process is a series of steps that help provide a solution to a large project. In LEAP, the design process has four major steps:

1. Picture it
2. Plan it
3. Do it
4. Review it

An exemplar, highlighted in green, is provided throughout this section to support understanding: School Garden Project
Note: Exemplar is not completely fleshed out

Stage 1: Picture it!

Learning Outcomes

Students will be able to:

- Explore project possibilities using MVP and stretch goals
- Identify and describe the limiting factors and available resources impacting scope
- Explain how the project will impact sustainability
- Define the purpose and goals of the project using SMART goals

Process:

The first stage in the design process provides all students with a chance to really explore their project and its possibilities. Students do this by first thinking about what the project would look like at its most basic, and then get creative and dream big, ideating on what it could look like if there were no restrictions and resources were not an issue. In the second part of 'Picture it', students use SMART goals to scale down (or up) their project depending on what is realistic given their particular situation (e.g. what resources are available to them, limiting factors, etc). As this stage overlaps with both the project autopsy and the planning phase, it typically takes no more than half a day.

Steps:

1. As a group, revisit the selected project and explore its various possibilities.
    - Minimum Viable Product - In a dialogue circle, brainstorm what the project would look like in its most basic and simple form - no frills attached. Although the group should challenge themselves and aim for something that has more layers, MVP provides the group with a starting point, and a product that they could fall back onto if they are experiencing major difficulties along the way. The goal of MVP is to provide value, even if small, while minimizing development costs.
    - Stretch Goals - After forming a baseline, give students the freedom to stretch their minds and think big. If there were no limitations and/or restrictions, where would students take the project? What excites them? To do this, ask students to form break-out groups to brainstorm these ideas. After about half an hour, ask the groups to present what they came up with. Although some of the ideas may be too extravagant to implement in whole, there may be possibilities to include parts of them.

    School Garden Project
    MVP: A single raised bed (1 metre x 3 metre), complete with organic garden soil and seeds; and one enclosure for onsite compost.

    Stretch Goals: To create a community school garden that provides the school with all produce used in the school cafeteria, and myriad learning opportunities for students to explore and engage . It will include: ten raised beds with drip irrigation system; native , biodynamic food gardens designed to benefit local pollinators; a living wall hosting various herbs; an aquaponics demonstration and learning pond; a walk-in greenhouse; multiple in-vessel composters that process all the school's food waste ; plaques providing information about the site's sustainability features. All inputs are local, organic, and/or from up-cycled materials.

2. Define Project Goal - Now it's time to get realistic. With the MVP and stretch goals in mind, collectively come up with a 1-2 sentence project definition that strikes a balance between the two extremes. When doing this, use SMART and make sure to consider the following questions related to scope and sustainability:

    Project Scope - What is the scope of the project? What are the limitations and/or constraints?
    - Consider the following:
        - Location - What opportunities and challenges does this location present?
        - Time - How much time is available?
        - Resources - What resources are available? What resources need to be gathered? How to get those resources?

    Project Sustainability - How does the project fit within the sustainability lens?
    - Consider the following:

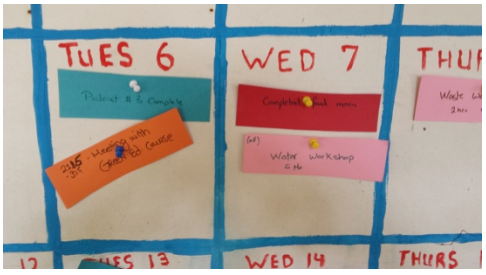
	○ Does the project meet the needs of all four areas of sustainability? How? (e.g. How can we ensure that this project is environmentally sustainable or beneficial?) ○ How does this project benefit the needs of the community? ○ How can we ensure that the project is maintained after the programme? The final definition should be explicit, but it is also important to note that it is a working definition that may be re-defined and evolve over the course of the programme. Project Goal: To plan and create six 0.5 x 2.0 metre raised beds, one walk-in greenhouse, and one compost system for the school community. The garden will source all local and organic growing materials, and will host 10 information plaques about the garden and how it is sustainable. 3. This definition is then recorded and posted somewhere conspicuous to serve as a reminder of the goal and purpose of the project. This can be done by creating a poster, taking photos, and/or designating a whiteboard/blackboard to this for the duration of the programme. The group should check in regularly to see if the goal has evolved or changed.
Stage 2: Plan it!	Learning Outcomes Students will be able to: ● Investigate what knowledge already exists on the project's topic ● Design and action plan for the project ● Organize both short term and long term schedules Process: The planning phase is intensive and often exhausting. It requires a lot of organization and open communication between group members. Make sure to break up the planning phase with mini excursions and other activities that are physically engaging. This is also a great time to start engaging in related workshops (in and outside of the class), which may facilitate planning. Steps: 1. As a group revisit the project goal and outline the steps required to get there. The list will be fairly vague at first, but will be filled in as the project evolves. School Garden Project Project Goal: To plan and create six 0.5 x 2.0 metre raised beds, one walk-in greenhouse, and one compost system for the school community. The garden will source all local and organic growing materials, and will host 10 information plaques about the garden and how it is sustainable.

Steps:

- Organize a timeline and create subgroups
- Find appropriate space(s) and prepare a proposal addressed to school leaders
- Design / map out space
- Inquire about funding possibilities
- Research how to build raised beds and how to build appropriate composter
- Source recycled materials for boxes and greenhouse
- Build beds
- Build greenhouse
- Build composting system
- Research best plants to grow in climate, and which plants work best together, etc.

2. Investigate - Before investing too much time and effort into any one aspect of the project, all members of the group should spend some time researching what knowledge already exists on the topic. This might mean connecting with the individual who gave the pitch, contacting those in your community who may know something about the topic, or doing research on the Internet or in the library. This preliminary investigation provides everyone with some knowledge on their topic while also helping to inform the timeline and subgroups. As the project develops, students will likely have to do further research on specific topics.

3. Organize a Timeline and Action Plan - Creating a schedule helps set realistic time frames and keeps the project on track while also providing students with some structure and giving them small goals to work towards. The schedule (e.g. agenda, calendar) should be maintained and revisited on a daily basis. It is important that all students are involved in this practice.



Suggested organization process:

- Divide the group into two smaller groups where each covers one of the following:
  - Communication - Who do we need to contact? Who do we need to meet?
  - Tasks and deadlines - project deadlines as well as related assignments (e.g. Final Reflection - Due May 4)
- Communications, tasks, and deadlines are to be written out on separate coloured pieces of paper.
- Using the group calendar (created in week one) begin adding this information to the timeline. Also include:
  - Possible workshops
  - Days off (no class)
- Review the calendar every day after check in. This is part of the daily agenda and will help keep students on task.

  Note: middle school students may need more direction and more explicit tasks

School Garden Project

Communication

- Meet with individual that pitched project to gain more information
- Meet with heads of school - propose project, discuss possible sites and available resources
- Contact Grow Green to learn more about local gardening (possible workshop?)

Tasks and deadlines

- 1st Multimedia project - due May 6
- Create garden design (inc. dimensions) - due May 4
- Create template for budget - due May 4

Workshops (potential)

- How to design/make raised garden beds
- Biodynamic gardening
- How to compost
- Pollinator workshop

4. **Determine Subgroups and Responsibilities** - Many teams have trouble figuring out who is responsible for what throughout the project. This confusion can cause the project to meet delays and ultimately break down. To combat this, while creating the schedule, students should identify where the project can be broken down into smaller projects or tasks. Through this, subgroups can be organized where small groups take ownership of getting particular tasks done. Whether this means delegating or doing the work themselves, students will be held accountable. As well, subgroups are responsible for identifying what materials are required to make their mini-project successful, and how much they might cost.

   Note:

   - **The more multifaceted a project**, the more opportunities for students of all learning styles and interests to engage.
   - Although students can engage in several sub groups, they should be mindful to not spread themselves too thin. This is something the facilitators should monitor.

   School Garden Project

   Some students may choose to focus on making a composting system, while others may want to participate in creating the greenhouse or raised beds. The same can be said for various tasks, such as writing a proposal, fundraising activities, sourcing materials, and developing the information cards. To encourage accountability, include student names next to tasks on the calendar.

   - Meet with heads of school - propose project, discuss possible sites and available resources (Celeste & Yasmin - create proposal)
   - Create template for budget - due May 4 (Jane & Remy)
   - Create garden design (inc. dimensions) - due May 4 (Subgroup 1)

   Some questions to consider:

   - How will the group be organized?

	● What are the various responsibilities? ● How will subgroups collaborate? ● How to make best make individuals accountable? 5. **Determine Deliverables (high school students)** - At this point, high school students should be thinking about deliverables by revisiting their credit needs. Students brainstorm what their deliverables may be (e.g .'products' they will produce as evidence of their learning) and an action plan, briefly outlining what they will need to do to reach their goals. Note: At this point, middle school students should already have submitted a multimedia assignment reflecting on the process
Stage 3: Do it!	**Learning Outcomes** Students will be able to: ● Discover, practice and apply new knowledge and skills ● Collaborate with peers and community members ● Design, test, and modify a prototype ● Create and implement a project **Process:** As each project is so unique, it is difficult to describe the exact steps. However, this stage is typically split into two sub-phases: 1. Project preparation 2. Project implementation 1. **Preparation** ● **Research** - Subgroups and individuals may need to investigate their specific topics in greater depth. Using the garden project as an example, students in the 'raised bed' group will need to research the most sustainable materials to make a raised bed, where to source the materials, and how to construct one.  ● **Workshops** - Workshops provide students with a space to focus on building discrete skills. Workshops should be organized and facilitated by the sub-groups, but in some cases not all students need to take part. This is a perfect way for students to flex their organization and communication skills while also connecting with their local community and being able to engage in hands-on learning. Each workshop should include objectives and deliverables, which the facilitating students outline prior to the workshop.

- **Meetings** - Students may be required to arrange and meet with individuals and/or groups in their community at different stages in their project. Presenting proposals, connecting with experts, and relaying information for continued project maintenance are a few of the reasons why they may need to do this. Although this is the students' responsibility, facilitators should be aware of and proofread all communications prior to them being sent. Facilitators should also be CC'd into all emails.

- **Resource Acquisition** - In the planning stage, students should get an idea of what materials and experiences (workshops) they will need to carry out their project. Subgroups combine their estimates in a shared spreadsheet (Google Sheets is an excellent resource) to see how much they need. It is best if one student is responsible for maintaining this. Based off of the monetary costs, students will have to make decisions on how they want to raise the money, or what might they need to change to make the project financially sustainable.
    - Fundraising - As fundraising takes time to build, students must start this part early. The capital will be used primarily to fund materials and workshops. This can be organized by a subgroup.
    - Grant writing

Note: Some programmes may include a budget for project materials and experiences, but regardless of where they money comes from, students are still responsible for maintaining the budget. This is especially true for high school groups.

When sourcing materials, students should take the elements of sustainability into consideration.

- **Bringing it all together and prototyping** - Although subgroups often overlap, there comes a time when all students/subgroups need to bring their efforts together in preparation for project implementation. By this point there is a good chance that the project has evolved quite a bit from what was originally intended. However, a product is still involved, and now is the time to test it. In testing, students will see how their project(s) works in the real world. Does it meet the intended goals? Is it effective? There is no harm in failure. In fact failure here is an equally important part of the learning process. Prototyping also allows students to share their project with others and get feedback. The review of a project provides students with strong fodder for reiterating the design process, and building valuable reflections.

2. **Implementation**

- After dedicating weeks to planning, building knowledge and skills, gathering resources, and prototyping and revisions, it is now the time to get down to the part most people jump right into - project implementation! However, all the time and effort put into preparation will no doubt pay off when putting the project into action. There still may be a need to conduct more research or revise various aspects of the project, but by this point it should be fairly solid.

Note: Depending on the project, this phase can begin while resources and knowledge are still being gathered. As well, some subgroups may be ready to implement their piece while others are still prototyping. It is important that educators help manage this, making sure that all subgroups and individuals are supported.

- **Ensuring Project Continuation** - This is another important element of project sustainability - will the project be maintained after it is implemented? By who? How? Too often, projects are put in place with little thought on what will happen to them after the programme is completed. As part of the planning phase, students must also create some type of action plan to ensure the project will have continued support. This may mean that the students have agreed to keep it going, or they have set something up with the local community to maintain it. Some projects may not even require maintenance. Each project is unique and will therefore require a unique approach.

	Note: At any point if it is looking like the project will not be completed on time, students should adapt their path, pivoting direction as needed. This may mean pivoting towards the MVP, discussed in the "Picture it" stage, to ensure that the basic form of the project will be completed on time. It is better to have the basic form of the project done well, rather than the entire project being done poorly.
Stage 4: Review it!	Learning Outcomes Students will be able to: ● Evaluate the impact of the project ● Summarize and provide evidence of their growth ● Reflect on their own learning journey Process: The final and equally critical stage of the process includes a review of the project and a reflection on what everyone learned. As part, the group is encouraged to share their experience with their school community. As well, this is an excellent time to organize (as a group) a final community oriented activity, such as a camp out at school or potluck. Reflections - Students are expected to complete a final reflection of their learning journey and of the project itself. In LEAP, students are given the choice to either write their reflection, or to have a one-on-one interview/conversation with the educator. Since the latter option is almost always preferred, educators should schedule time for this important piece. One conversation typically takes 15-20 minutes. To help capture the conversation, educators can choose to take an audio recording of the conversation or take notes throughout. Google Docs has a "Voice typing" tool that can be useful with this. One-on-one conversations may be more time consuming, but the choice gives students the opportunity to better express themselves. Writing/interview prompts include: ● Project impact - students evaluate the success of the project: ○ Did we meet our goal(s)? If not, why? ○ Was the project sustainable? How? If not, why? ○ Did the project benefit the community? How? ○ What would you change in the next iteration of this project? ● Skills - students highlight the Green School skills they felt they most developed ○ What Green School skills did you most develop? Give examples. ○ Note: High School students also include which credits they think they deserve and why ● Learning journey - students reflect on their own experience in the programme. ○ Overall, what is your feeling about being part of LEAP? ○ What part of the project brought you most satisfaction and why?

- What kind of ideas did you find interesting to follow? Did the process make you curious about other things?
- What were things that challenged you the most? How did you deal with it?
- What would you change for next time? What would keep the same?

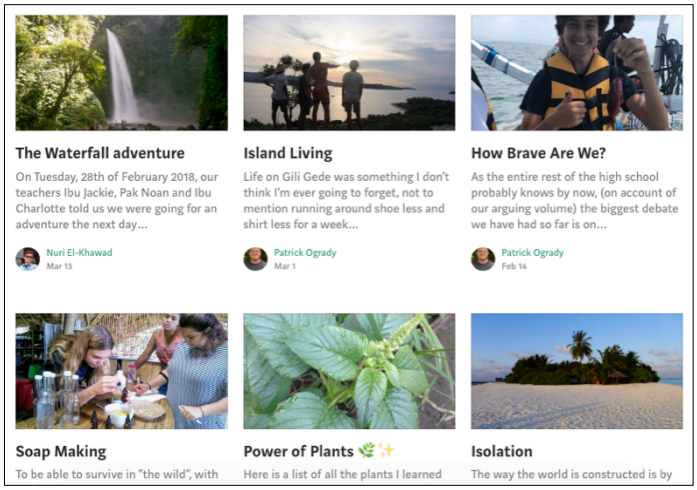
Notes: It is also important that the educator(s) write and share a reflection! They were also a part of the experience, and reflecting allows them to grow as educators and as learners.

Student feedback

This is also a great time to get feedback from the students about the programme itself. Using Google forms, create a short survey that will help shed light onto student satisfaction, how the programme could be improved, where the programme best succeeded, and how the educators did! Use this information to help build the next experience.

Sharing with the Wider Community

The blog is an excellent method to share the students' stories with the world, but more can be done. At Green School, LEAP students share their experience with the rest of the school in an assembly. Students can do so in any format they choose - a final video, a photo montage, a presentation, etc. This sharing communicates what LEAP is all about, helps build school community, and perhaps inspires students to be changemakers in their wider community.



LEAP for Educators

This section unpacks what it takes to effectively execute a LEAP like programme by further exploring the **role of the educator**, presenting how **assessment** is carried out, and shedding light onto the various **considerations** that need to be made prior to programme implementation.

The Role of the Educator

For LEAP to be an effective learning approach, it is essential that the educator assumes the role of a **facilitator**, gently *guiding the learning process*. Educators need little content knowledge but should be expert learners who have mastered the art of *how to learn*, while also having the skills to provide structure and moderation to learning sessions. Educators should help students realize their abilities by establishing a safe space for them to do so, and be available to provide scaffolding where and when necessary. The level of facilitation depends on the age of the students and the complexity of the project. Some groups may require increased scaffolding and structure throughout, while others less.

Although not essential, educators should be familiar with the community, or at least be willing to explore and engage. This not only will help shed light onto what the community's needs are, but will make it easier when seeking various resources.

Facilitating is a unique approach to that of teaching, and therefore it requires educators to embody different behaviours and values, and to take on a new set of responsibilities.

Behaviours

LEAP educators are:

- **Lifelong learners** who model curiosity
- **Open-minded** and flexible in their thinking
- Comfortable with **co-facilitation**, often working alongside other educators and adults to help guide learning
- **Reflective** of their own practice and continually seek ways to hone their own skills
- **Patient** and understand that learning is in the process, not the end result
- **Methodical** with the ability to develop a process to synthesize learning
- **Respectful** of members of the community

Values

LEAP educators value:

- Real and emergent learning opportunities
- Wall-less education
- Student perspective and diversity
- Playfulness

Responsibilities

LEAP educators:

- Guide the process, not the content by providing students with the tools and the understanding to navigate the design process. This includes being familiar with the design process, devising appropriate learning activities that support understanding, and employing organizational strategies, such as routine, agenda, checkpoints, and deadlines. Educators may occasionally need to re-evaluate the direction and scope of the project if not practical.
- Are community and regional connectors, connecting both people and resources
- Help establish group cohesion and facilitate communication and collaboration between students
- Model curiosity and learning techniques
- Scaffold where and when necessary
- Manage student behaviour to ensure students are respectful participants
- Provide ongoing assessment and feedback throughout entire programme (this is explored in more detail in the next section, "LEAP Assessment")

Impact and Assessment

LEAP provides students with ample opportunities to develop the critical skills they'll need to navigate the rapidly changing world we now live in. But how do we measure this? What is "success"? What indicators will show us that LEAP is an effective method to making our world a more sustainable place?

Measuring Impact

In LEAP, to measure success we use a 'long stick', and a take a number of diverse measurements. Some of these measurements focus on how the programme has impacted the student, and others look at the impact of the project itself.

Student Impact

Success looks like:

- Students are engaged
- Students are able to collaboratively solve problems
- Students are able to reflect on their learning and grow throughout the experience
- Students achieve our mission to make our world sustainable

How it's measured:

- Ongoing educator observation of criteria toward achieving the course aim and sustainability
- Daily check-ins on student progress and feelings
- Student reflection of experiences and process through: Multimedia assignments (specific to middle years) and a final reflection on the learning journey & process / self-evaluation
- Credit Achievement - Students achieve credits toward a high school diploma by aligning their criteria and assessment for achievement with the curriculum of a particular subject area. This is important for high school students who are working toward a diploma.

Project Impact:

- Achieved project's goals
- Ability to connect project, and maintain connection to sustainability goals
- Had a positive impact on the local community and/or environment
- Established means to maintain lasting impact

  Note: Projects should ideally have a positive lasting impact on the fabric in which they exist (e.g. community, environment, etc). If the project does not meet its goals, it is not a failure, but a learning opportunity that should be thoughtfully reflected upon. What educators want to absolutely avoid is the augmentation of problems (e.g. externalizing project costs onto others and the environment). A good design rule to guide by: If the stakes are high, take fewer, smaller risks in the selection of the project. If the stakes are low, take more, larger risks.

Assessment

Educator Assessment

Educators should provide all students with ongoing and immediate oral feedback throughout the entire programme. When reviewing multimedia assignments and other reflections, the educator provides feedback regarding the depth and quality of reflection, and prompts the student to dig deeper by asking questions.

Final feedback is given to the student in a few paragraphs, noting the student's general demeanor in class, application of Green School Skills, where they most evolved, and areas for growth. Educators should also be sure to provide a few specific examples that support their statements.

Student Self-Assessment

As part of the final reflection, students are asked to share their learning experience based on their engagement and skill development throughout the entire programme. This can be done in writing or in a one-on-one interview with the educator. *Student self-assessments are considered when providing final feedback.*

Some prompts include:

- Project impact - students evaluate the success of the project:
    - Did we meet our goal(s)? If not, why?
    - Was the project sustainable? How? If not, why?
    - Did the project benefit the community? How?
    - What would you change in the next iteration of this project?

- Skills (/Credits) - students highlight the Green School skills they felt they most developed:
    - What Green School skills did you most develop? Give examples.
    - Note: High School students also include which credits they think they deserve and why

- Learning journey - students reflect on their own experience in the programme.
    - Overall, what is your feeling about being part of LEAP?
    - What part of the project brought you most satisfaction and why?
    - What kind of ideas did you find interesting to follow? Did the process make you curious about other things?
    - What were things that challenged you the most? How did you deal with it?
    - What would you change for next time? What would keep the same?

Considerations

As LEAP is a unique programme it requires additional considerations when implementing. The following is a list of factors that should be considered, and will in part be determined by the system it exists within, including possible constraints and available resources.

Administrative Support

Administrative support and engagement is essential to a robust and fluid LEAP experience.

Administrative support is required on a number of levels. These include:

- To assist educators in adjusting their workload and schedule
- To assess student requirements prior to engaging in LEAP, specifically regarding credits
- To help establish a space for the students
- To support communication with the parent(s)/guardian(s)
- To facilitate the connections between LEAP Academy and the wider community

However, for administration to be an effective participant, educators are responsible to maintain open and clear lines of communication. This means ensuring that administration is aware of the various activities students will engage in, what the group's needs may be, and following school protocols.

Timetable / Scheduling

Due to the immersive nature of LEAP Academy it is ideal that educators and students are committed members (e.g. 8:30am - 3:15 pm, 5 days per week, 6 weeks). However, due to various challenges and restrictions, in some cases multiple educators may be needed to share the position, and LEAP intensity may have to be modified depending on student needs. For example, in the middle years at Green School, students are required to fulfill a specific number of proficiency class hours, and therefore for three days per week LEAP consists only of half days. However, as LEAP is a collaborative effort, it is important that all students are present at the same time.

Space

At Green School, space needs to be allocated for students as it is a non-permanent class. However, it is important that LEAP students have a space in which they can make their own. This will help form the community atmosphere that is essential to LEAP.

The Role of Technology

Although not essential, technology and access to the Internet have the potential to strongly facilitate the learning process. Educators and students use technology to communicate with each other and the wider community, exchange resources, organize schedules and activities, for research, and as a means to share their learning experiences. However, just like in regular classroom environments, there is a time and place for technology, so it is important that activities are monitored by the educator.

Parents

As LEAP is typically dynamic and has a greater tendency to flux and change direction, increased transparency is needed so parents can easily follow what is going on. The LEAP blog helps with this, as does the platform, SeeSaw. Furthermore, due to the community integrated approach of LEAP, parents must sign a contract at the beginning of the programme that gives their child permission to go offsite on a frequent basis. For overnight excursions and those including higher risk activities (e.g. freediving) , permission forms need to go out in a timely fashion to enable parents time to comment.

Assessment

LEAP assessment methods have been outlined and described in the previous section. However, it is important that assessment aligns with the school requirements as well. This will likely need to be discussed with administration.

Budget

In LEAP, educator to student ratios tend to be much higher, and in some cases this can put a strain on the school. Also, due to increased excursions, the cost of LEAP is typically more. To overcome this challenge, a fee can be attached to the programme, schools can allocate a sum for programme needs, and/or students can engage in fundraising activities, however this is typically for their projects.

Student Recruitment

There are a number of ways to go about student recruitment. In some situations, LEAP is open to all, where all students (within an age range) have the opportunity to join, and positions fill on a 'first come' basis. In some instances, students must go through administration first, making sure they have the credits they need to graduate prior to taking LEAP. This is especially true for senior high school students. Some LEAP programmes may want to undergo an interview process to help ensure that team will be well-balanced. This would have to be organized well in advance.

Adapting the LEAP Method

LEAP is a process that can be adapted and modified for a wide variety of learning situations. Although learning opportunities are most rich when the programme is an extended and immersive experience, learners can still reap the many benefits that LEAP offers. When planning LEAP experiences, educators should be cognizant of what limitations and/or restrictions their particular programme may face, and adapt accordingly.

Appendix

Strategies

Strategy	Description
Dialogue Circles	In LEAP, dialogue circles (aka. talking circles) are the main mode of group communication. Dialogue is a purposeful conversation in which participants are open to all ideas that pass through the conversation, and are willing to suspend judgement and allow their own beliefs to evolve (Dialogue, 2011). The goal of dialogue is to develop a deeper understanding of the issues Above all, dialogue promotes 'active listening' in which people think together in a relationship. In 'dialogue', members sit in a circle so everyone can see and listen to each other without difficulty. Sitting at the same height, with no participant (including the educators) higher than another, promotes a community where all individuals are of equal importance. As this method of communication may be novel to some, facilitators may want to engage the group in a few activities related to conscious communication. This should be carried out in the first week and will help set the tone in how students should communicate with each other throughout the programme.
Check-ins	On a daily basis, students engage in 'check-ins' in which students share how they are feeling and anything else they would like to share - something that happened on the weekend, something they are excited about, etc. Check-ins can happen at the beginning of the day, after lunch, and/or at the end of the day. When doing check-ins, the dialogue circle method should be used. Example Questions: ● How are you feeling? ● How was your weekend? ● How do you feel the day went? ● What did you work on today? How can you improve? These routine check-ins help build community while also providing a space where students can share their thoughts and reach out for support if necessary.
Practicing Mindfulness	Mindfulness is a common practice at Green School. It helps to ground the students in the present and helps to level the energy of the class, making students more prepared to engage and actively listen to each other. Mindfulness exercises are particularly helpful first thing in the morning, before checking in, or after lunch, when energies are high. Example Routine: Body Scan ● Students lay on the floor, with their eyes closed (they may also look up at the

	sky/ceiling) ● First, ask students to pay attention to their feet for 5 - 10 seconds ● Questions to ask: ○ How does this body part feel? ○ Is it cold or warm? ○ Does it feel tight or relaxed? ○ Is all or part of that body part touching the floor? Is it touching clothing? ○ What does that feel like? ● From their feet, continue to ask the same questions body part by body part until you reach the head. ● Question how each part of the body feels to bring students' awareness to their body in the moment. If there is tightness or stress, imagine breathing the stress out of that part of the body with each exhale.
Agenda / week goals	Outlining and reviewing the day's agenda or the week's goals should be done throughout the programme - every morning / at the beginning of the week. This strategy helps to provide structure to the overall flow of the course. However, it is important that this task is a student driven one. Students share the responsibility with the educator of creating and upkeeping the agenda and goals. Note: Middle year's students may require more guidance and support with this task than high school students
Break-out groups	Students work in small groups, typically 3-6 students in size, discussing specific subjects or aspects of the broad theme of the main group. This strategy provides students with greater opportunity to engage with each other and on the topic.
Think-Pair-Share, TP-4-All	Think, Pair, Share ● Think - Students are given a couple minutes to think about a question posed by the facilitator ● Pair - Students share their thoughts with a partner ● Share - Students share their thoughts with the class (in a dialogue circle) Think, Pair – Share in a small group – Share as a class ● Think - Students are given a couple minutes to think about a question posed by the facilitator ● Pair - Students share their thoughts with a partner ● 4 - Students share their thoughts within a small group (typically for more difficult tasks) ● All - Student groups share their conversation and thoughts with the class These strategies allow students to discuss material and ideas with their peers prior to sharing in front of the class. It builds confidence and gives all students a chance to participate.

Recap-Reframe	On an ongoing basis, students will be asked at random to recap or reframe what the educator or another student has said. In LEAP this is typically used for the clarification of certain procedures, due dates, etc, but can also be used to ensure that students are engaged and listening to one another.
Thumbs - Gauging understanding / agreement and/or disagreement	To see if students understand the instructions or agree/disagree with specific suggestions, ask them to see their thumbs – up for yes, down for no, or sideways for sort of. This gives the facilitator and the students a quick idea of where the group stands on a certain topic/idea.
Delegate Tasks	Students divide up the workload so that everyone has a role to play. Delegation helps to improve *efficiency* by transferring work to those who have the skills to carry out a specific task, and is also a great way for team members to develop themselves and take ownership of their role(s).

Tools

Tool	Description
Communication between educators / facilitators	
Email and Phone	If co-facilitating, it is a good idea to share both your email address and phone number
Communication between participants (including educators)	
Email	Google Classroom is the main means of digital communication between members of the group, but it is a good idea to also have and share all email addresses. On occasion, students will have to work in pairs or groups, connecting with members in the external community. For this, they will use their emails. Notes: ● Student emails sent to those outside the group should always be okayed first by the programme facilitator, and be cc'd to include the facilitator. ● Educators' school email addresses should be easily accessible (e.g. in the Syllabus and in a number of other easily accessible locations) ● Student school email addresses should be amalgamated on a Google document and shared with the class.
Slack	Slack can be an effective tool to communicate between group members, and as it is actively used in the business world, it provides students with another practical skill they can use at a later date. Note: for Slack to be effective, all members must be able to download the App onto their phone and set up as follows: ● Set up a shared Slack group, including all members of the group ● As a class, download the Slack app onto Smartphones ● Allow "push notifications" (without this active, students will not be notified) Note: Whatsapp is a good alternative but may not be applicable to all circumstances due to phone number sharing concerns.
Resource sharing platform	
Google Drive	In Google Drive, educators create a mega-folder for the cohort (e.g. LEAP Junior 1.0). In this folder two main folders are created, one for educators and the second is created by Google Classroom - for students. Example:

	> LEAP Junior 1.0 > Educators (Includes outline, mini-missions, permission forms, risk assessment, feedback, student folders, etc) > Programme Outline (document) > Mini-missions (folder) > Permission Forms (folder) > Students (folder) > Feedback (folder) > Student Folders (folder) > Classroom (timeline/schedules, templates, proposals, readings, other shared documents, etc.) > Timeline (document) > Readings (folder)
Google Classroom	This is LEAP's primary means of digital communication, and is used to: ● Post notifications and/or reminders ● Share documents and/or templates ● Provide a space for dialogue about the programme A "Classroom" folder is created in Drive. Make sure this folder is located within the cohort folder.
Google Photos	This is a great way to collect, share, and organize all the photos (and videos) that are taken throughout the programme. Make sure to share the album with students and demonstrate how to upload. These photos/videos can be used to create video montages, be used in personal reflections, and for final reports - to name a few!
SeeSaw	Similar to Google Classroom, but provides increased transparency, allowing parents to follow and participate as well. However, it does not automatically connect to Google Drive. https://web.seesaw.me/
Documentation of Learning	
Blog	Setting up a blog is a great way to share what the students are learning with the wider community. LEAP at Green School uses Medium.
Instagram	Photos should be taken throughout the programme to document the learning journey and placed in shared Google Photos library. A selection can be compiled on an open platform, such as Instagram. Ideally, this should be the responsibility of one or two students.

Podcasts	For middle school students, podcasts can be used to document learning and fulfill multimedia assignments. In high school, a group of students is expected to collectively create a podcast at the end of each week whereby they interview one another about their experiences so far. Through this, students build interview skills and may learn how to use editing software such as: Garageband, Audition, or Audacity. To post podcasts, LEAP Green School uses Soundcloud.
Learning/education Tools	
Coggle	An easy to use, mind-mapping tool. See an example here. https://coggle.it/
Canva	Canva is a visual online storytelling tool, and is great for making infographics, presentations, reports, and posters. https://www.canva.com/ Other similar tools: Visme: https://www.visme.co/ Piktochart: https://piktochart.com/ For more information, Piktochart, Visme, and Canva are compared here.
Voice typing (Google Docs)	This feature can be used to record students during their interviews. Instructions: ● Make sure that your microphone works ● Open a document in Google Docs with a Chrome browser ● Select: Tools > "Voice typing.." ● When you're ready to speak, click the microphone ● Speak clearly, at a normal volume and pace

Activities

Following are a few examples of the types of activities used throughout LEAP.

Activity	Description and Instructions
Icebreakers / Community Building Activities	
2-Minute Life History	This activity is a great first exercise to build familiarity within the group, and it also promotes active listening. Facilitators should join! Instructions ● Students find a partner that they do not know very well and share their life history (10 minutes each) ● After both students have shared, the class regroups and each person introduces their partner to the class by presenting a 2-minute snapshot life history Note: Let students know that they will be sharing their partner's story in advance so they actively listen to one another
Finding Common Ground	An engaging and fun icebreaker, connecting students through interests.. Instructions ● Distribute a sticky note per student ● Split the class into equal parts ● Label each group as either "group A" or "group B" or any other variety ● Instruct Group A to write something that they really like ● Once the students have finished, instruct them to put their note on the wall ● After Group A takes their seats, instruct Group B to approach the notes and find something they identify with. Group B must find the original author. Give the students a few minutes to discuss the topic. ● Instruct everyone to take their seats ● Instruct the Group B to write something that they really dislike ● *Repeat exercise in reverse order* ● Lead the group in a discussion ○ How did it go? How did discussing these topics differ? How does this apply to global communities? Note: If the group is uneven, include yourself in the activity so everyone can be included.
Potluck	Using some collective method of organization (such as a shared Google Sheet), ask the students to prepare a pot-luck in the first week. This activity is fairly straightforward, but requires preparation and organization nonetheless. It also builds community whereby students can share their favourite foods. Students may want to make a weekly ritual out of this as well.

Exploring LEAP	
Six Thinking Hats	This tool helps facilitate group discussion and individual thinking about a project. This is a great first activity to get students thinking in this way and will shed some light on what PBL is and how it works. Instructions ● In a dialogue circle, students discuss the various 'thinking hats' they can wear when thinking about a project. They then take a couple of minutes to think about what "hats" they connect to most, and share with the group. These can be tallied so students can see where there are deficiencies. The "hats" include: ■ White (facts - information and data, what is known? what information is needed?) ■ Red (emotions - intuitions and gut feelings) ■ Blue (process - thinking about thinking, organizing and planning) ■ Yellow (benefits - positive and optimistic, values and benefits) ■ Black (cautions - difficulties or dangers, critical thinking) ■ Green (creativity - ideas, possibilities, alternatives, solutions to black hat problems) ● Students then work in groups (4-6) and each take a role (aka hat), or two. They then are asked to use their hat (e.g. white - facts) and think about their space and how to set it up (e.g. collecting facts > how big of a space do we have, what are the power points?) ● After brainstorming what their space will look like and what resources are needed (if any), the two groups will combine their efforts and collaboratively decide on a set-up ● Set-up space! ● Debrief activity in newly set up space! ○ How did it go? What needed to be considered when setting up the space? What was the process? Was there conflict? How could conflicting ideas be mitigated? ○ Make sure to point out that this is what project-based learning is all about, and that they should consider these different ways of thinking when choosing, designing, planning, and implementing their project
What is Sustainability?	Sustainability is increasingly important to our future, yet few people understand what it truly means. This is an excellent activity to explore the concept of sustainability, and allows participants to demonstrate their prior knowledge while also building new understandings of this complex idea. This activity should be completed early in the programme, prior to choosing a project, as

	it provides students with the ability to analyze any project's potential sustainability. Instructions ● Divide students into groups of 3-4 students ● Provide each group with chart paper and markers ● Ask students to brainstorm what they think Sustainability means. They can do this by using words and drawing images. Encourage students to make a diagram representing sustainability. (30 min) ● When 30 minutes is up, each group takes a turn to present their poster, sharing what they think sustainability means and why. ● After sharing, engage in a dialogue where students combine their ideas, creating a fuller picture and deeper understanding of what it means to be sustainable. Using an example often helps (e.g. sustainable health care, sustainable food systems, etc) Some key points: ○ Sustainability minimally includes the "three pillars" of sustainability: environment, economy, society. It can also include other areas, such as personal wellbeing. ○ All areas must be balanced to achieve sustainability. Questions: ○ Sustainability for who? ○ Where do you (do humans) fit into sustainability? What is your (our) role? ○ Is one area of sustainability more important? Why? Why not? ○ What factors make it impossible or challenging to attain sustainability? ○ What are some root causes to sustainability issues?
Passion Project	In this activity, students walk through a basic design process using a project idea they are passionate about. Instructions ● Each student chooses a project that excites them and brainstorms what it would look like and how they would plan it out (15 min) ● Students share their project with a neighbour (20 min. 10 min each) ● In the dialogue circle, students are then asked to share their idea to the class. During this sharing, peers are free to ask questions and (gently) critique - assessing the project's practicality, scope, sustainability fitness, etc.
LEAP Specific Activities	
Project Pitches	To inspire students and to shed light onto the community's needs, members of the community are invited to pitch their project ideas. In Green School LEAP, this is known as, "The Garuda's Nest". The Garuda's Nest is a playful take on the format popularized by TV shows like "Shark Tank" and "Dragon's Den". However, rather than having an

expert panel of entrepreneurs judge the various ventures, it's the students who choose and invest their time into the projects.

Steps:
Before the pitches:

- Providing ample notice, community members are contacted prior to the start of the programme and invited to pitch a project idea to the LEAP group. In the invitation email explain what LEAP is and provide any additional information about your specific programme (e.g. if it is theme-based, duration, age group, etc). Interested parties are asked to respond in a short email about their idea, describing what it is, how students could be involved, what solutions it may bring to the community.
    - Note: Community members may include those from the school (staff, faculty, peers, parents) and anyone else that the educator wants to include in the wider community
- Candidates are presented with available times to pitch their project. Ideally, all pitches take place on the same day, and should be 5-10 minutes in length.

On the day of the pitches:
On the selected day, the presenters come ready to pitch their ideas to the group. Some are formal and others informal. There are no set expectations, all ideas are welcome. Projects are often at varying levels of development. Some are just ideas, while others may be part of a larger project or already partially developed. It is up to the students and the educator(s) to choose an appropriate project.

- Prior to the pitches, prepare and set-up space. Present the students with a timetable of who will be presenting and their topic (e.g. Daniel Strom - therapeutic garden) and explain student responsibilities - to be active listeners, take notes, and to think about questions that will help them better understand the project and its possibilities (e.g. How much time is required? Is there any existing funding? What skills are required?). At this time it is also important to think about how to best set up the space so all members can be engaged. A dialogue circle is typically a good format.
- The pitches take the following format: Presenter comes, Pitch (5-10 min), Question period, Presenter leaves, Debrief (if there is time between pitches)
- During the question period, students should hold back on asking about details as that may be part of the picturing stage. Instead, ask students to write additional questions that come to mind and to (quietly) note on a scale from 0 - 10 how much they liked the project.
- After all scheduled presenters have gone, encourage students to pitch their own ideas. They should now have a sense of what a presentation can look like and what to expect.

	After the pitches: ● Debrief the individual pitches: What did you think about the project? What additional questions do you have? How practical is the project? What alternatives and/or modifications could be implemented to make it more practical? What did you think of the presentation/presenting style - was it engaging? Why? ○ Note: debriefs can also happen in between pitches if time permits ● After the project pitches, share a Google Form with all the projects listed and ask each student to input a rating 0 -10. Although this won't determine which project gets chosen, it may facilitate project elimination. ● Send heartfelt thanks to all participants for their contributions and share insight into the process of narrowing down our project. Email group management should be applied here (e.g. BCC, CC, etc)
Project Autopsies	After the pitches, creativity is at an all time high. Ideas bounce around and there is a desire to define a project immediately. In order to avoid a premature decision, students go through a process that allows them to dissect each project proposal. "Project Autopsies" allow everyone to understand the nits and grits that would go into the execution of any one project, while thinking of which idea will put the team in the best position to succeed. After eliminating the majority of project ideas, students should now have a solid group of projects which they all feel confident and excited about (approximately 2-4). To perform the autopsies, students work in "Break-out groups", with each group dissecting one project, OR with each group dissecting all of the final projects. This can be done on poster paper, whiteboards, or any other presentable medium that allows students to explore the projects. ● Project Autopsy Guidelines include: ○ Determine project goal - In one or two sentences define the goal (use SMART - specific, measurable, achievable, relevant, time limited) ○ Determine mini goals - List the smaller goals within the larger goal ○ Project impacts - Why is it important? Who benefits? Use a sustainability lens. ○ Learning Outcomes - What skills, new knowledge and understandings might you get through this project? ○ Team Assets (roles) - What skills and roles can all members of the team bring? This also includes educators and other contacts. ○ Steps to Success - Write a short list of things you will need to do and consider to carry out this project ○ Weekly goals (think scope) - What might each week look like? ○ Questions - What questions do you have about this project that would need answering? ○ Rating (0-10) - Based on interest, feasibility, impact, as a group, rate the project. Addition: ○ High School: What credits will this project give you?

	After answering all the questions for each project, students reunite as a larger group to present and discuss their thoughts about the projects. In the democratic process, students choose a project that best reflects the group's interests as a whole. Notes: ● In LEAP, projects can be modified, scaled, and/or combined ● If one or two students are strongly against the chosen project, talk with them separately to discuss alternatives. Perhaps they could do a related side project that speaks to their interests and/or skills, or do something different altogether. It is important to address such situations early as students are much more likely to be engaged and invested in the project if they are interested in it.
Connecting to Place	
Wonders	Students explore their environment, developing questions about what they see. Each student selects an artefact that calls to them and shares it with the group. Instructions ● Take 10-20 minutes to explore the area you are now in (e.g. an intertidal zone, a field, riverbank, etc). ● Select an artefact from the environment that you find exciting or curious ● If appropriate, bring it back to the group to share by placing it in the middle of the talking circle ● Allow students to share their findings by prompting - why did you choose this? What questions did you create from this? Etc.
Soundwalk	This is a good activity to connect the students to the space they are in, using all their senses. A soundwalk can cover a wide area or it can just centre around one particular place. Instructions: Prior to the Soundwalk ● Present the idea of a soundwalk (purpose - to connect to their environment using primarily their aural senses) ● Explain to the participants what they will be doing (quietly, yet actively listening to the environment around them - no talking!), and to think about the following questions: ○ What do you hear (make a list)? ○ Can you detect - Interesting rhythms? Highest and lowest pitches? Intermittent or discrete sounds (rustles, bangs, swishes, thuds, etc)? ○ What are the sources of the different sounds?

	During Soundwalk ● Lead group through a space at a leisurely pace, stopping occasionally to absorb subtle sounds (e.g. a babbling brook, a gentle breeze through the trees, etc) ● If possible, try to experience various environments ● Depending on the size and type of group, adjust the time as necessary (15 min - 30 min) After the Soundwalk ● In a suitable location, collect the group and form a dialogue circle ● Ask the group what they heard. Make sure to facilitate dialogue throughout the group. ● Ask the group how the sounds may differ in different locations - the city, a beach, etc. ● Ask group how that experience made them feel Extension – Personal Reflection / Poem ● Before proceeding with dialogue, ask students to pull out a writing utensil and a piece of paper ● Allow 10-15 minutes for students to free write about experience. Explain that with free writing, you should not edit, but let it flow. ● Share with a partner, and then try to create some kind of poem using both experiences ● Proceed with dialogue, sharing if desired
Sense of Place (Mini-mission)	This activity has two parts. Part 1 asks students to collaboratively create a mental map of their community based on their prior knowledge and understanding of the space. They will have to negotiate diverse frames and points of view in order to build something that represents their collective knowledge of their community (e.g. school and/or surrounding area). Part 2 allows students to put their knowledge to the test and explore their surroundings. This activity promotes collaboration and communication skills, while also providing students with the opportunity to increase their awareness of the space in which they will carry out their project. Instructions: Part 1: Mental Maps ● In groups of 3 or 4, students create a mental map of their community (school and the surrounding area). This can be done with chart paper and markers. ○ Students should include anything and everything they know about the space. They can use images, words, etc. However, there is a catch!! For the first 10 minutes of the activity, group members cannot talk! Students

must work as a team in silence. After 10 minutes and for the next 20, they are able to discuss openly in their group. After they've exhausted their knowledge (approx. 30-40 minutes total), they will share their masterpiece with the rest of the class.

Part 2: A Sense of Place - Neighbourhood Exploration and Observation

- In the same groups as before, students will explore the same area on foot/bike.
- Each group is expected to complete a detailed analysis of how the space is used by explaining things, such as: building types, roadways/pathways, natural space, transportation, infrastructure, etc. While exploring the area they should also take photos/notes.
- Using this experience and documentation, students will show what they've learned about their community in a format that they feel best reflects their learning for the day.
    - They may choose any visual form of displaying their geographic knowledge: photo essay/montage, detailed analytical urban map, street scene drawing, neighbourhood descriptive poster, diagrams, flow charts, comic strips, power points, blog entries, a newspaper article, a blog, a prezi or even a short descriptive video (other forms are welcome!)

Students can use the following acronym, "OSAE" to guide observation/reflection:
O – Observe. What do you see/hear/smell? What's going on? Work from obvious to complex. Be precise!
S – Speculate. Why is something there or not there? Write open ended Qs and make sense of your observations.
A – Analyse. How come? What is the real reason why it's here or not here? Seek answers.
E – Evaluate. In what ways could this landscape change? Consider social values here. Justify your opinions.

These will then be shared with the rest of the group.

Questions to consider:

Are the maps distorted? If so, why?
What content is evident or missing?
What do the maps tell about your knowledge?
What did the activity reveal about different types of learners?
What do the maps reveal about personal and group biases?
How did your understanding of place differ before and after exploring your community?

References

Barron, Brigid. (2008). *Powerful Learning: Studies Show Deep Understanding Derives from Collaborative Methods*. Edutopia.

David, L. (2007). *Situated Learning Theory* (Lave). Learning Theories. Retrieved May 18, 2018 from https://www.learning-theories.com/situated-learning-theory-lave.html.

Dewey, J. (1916). *Democracy and Education: An introduction to the philosophy of education*. New York: Macmillan.

Dialogue (2011). Undergraduate Semester in Dialogue: Summer 2011. Simon fraser University at Harbour Centre.

Efstratia, Douladeli. (2014). *Experiential Education Through Project Based Learning*. Procedia - Social and Behavioral Sciences 152. 1256-1260

Green School (2018). Green School Way Foundations.

Hursh, David. "The Long Emergency: Educating for Democracy and Sustainability during Our Global Crisis." Critical Theories, Radical Pedagogies, and Social Education, edited by Abraham P. DeLeon and E. Wayne Ross, Sense Publishers, 2010, pp. 139-150.

Hutchinson, David (2015). *Project-Based Learning: Drawing on Best Practices in Project Management*. What Works?: Research into Practice. Government of Ontario. Retrieved March 28, 2018 rom http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/WW_BestPractices.pdf

Papert, Seymour and Harel, Idit. (1991). "Situating Constructionism". Constructionism. Ablex Publishing Corporation. Retrieved May 18, 2018, from http://www.papert.org/articles/SituatingConstructionism

Robinson, Ken. (2006). *Sir Ken Robinson: do schools kill creativity?*, TED Ideas Worth Spreading. Retrieved March 22, 2018, from www.ted.com/talks/ken_robinson_says_schools_kill_creativity/transcript

Rogers, Tanya (2014). Overcoming Implementation Challenges with Problem and Project Based Learning in Advanced Technological Education Programmes within Community Colleges. College of Professional Studies Northeastern University Boston, Massachusetts. Retrieved March 3, 2018 from https://repository.library.northeastern.edu/files/neu:349670/fulltext.pdf

TRC/AWEA (2008). *Praxis*. Retrieved May 6, 2018 from https://trc.org.nz/sites/trc.org.nz/files/Praxis.pdf