

LEADERSHIP AND ENTREPRENEURSHIP COURSE, 2017



TERM 3 SCHOLAR WORKBOOK

LESSON Quotes and Action Steps

LESSON	QUOTE	ACTION STEPS
LEC 15 Mentoring	<p>“Treat a (hu)man as he is, and he will remain as he is. Treat a (hu)man as (s)he could be, and (s)he will become what (s)he should be.”</p> <p style="text-align: right;"><i>-Ralph Waldo Emerson</i></p>	<ol style="list-style-type: none"> 1. Inform members of a regular place & time for your E! Club to meet. In your first meeting, finalize plans for Mentoring Week and identify resources you need. 2. Please make sure you finish your portfolio with the required evidence by the next lesson. 3. Read the “PEDVU in the News” articles on p. 5-7 of this workbook. 4. Fill in your personal daily expenditure for the next 5 school days. 5. Remember the Business Skills Portfolio is due by LEC 18!
LEC 16 I am The Solution	<p>“Our deepest fear is not that we are inadequate. Our deepest fear is that we are powerful beyond measure. It is our light, not our darkness, that most frightens us. We ask ourselves, who am I to be brilliant, great, talented, and fabulous? Actually, who are you not to be? You playing small does not benefit the world. There is nothing good about humbling yourself in fear that you will make other people feel bad. We are all meant to shine, as children do. We are born with glory within us. It is not just in some of us, it is all of us. And as we let our own light shine, we give other people permission to shine as well. Free yourself from the fear of being great. Be great and free others!”</p> <p style="text-align: right;"><i>- Marianne Williamson</i></p>	<ol style="list-style-type: none"> 1. Research on gender and empowerment at school. Answer the following questions: <ol style="list-style-type: none"> a. <i>Is the Head Boy treated differently from the Head Girl?</i> b. <i>Do girls have real leadership positions or are they always “assistants”?</i> How is work divided along gender lines in the Educate! Club? c. <i>Who is bullied? Why are they bullied?</i> d. <i>How are poor students treated at school?</i> e. <i>Are there some opportunities that certain students can’t access? Why not?</i> 2. Read Malala Case Study. 3. Remember the Business Skills Portfolio is due by LEC 18!
LEC 17 Safe & Empowered	<p>“Freedom is not something that one people can bestow on another as a gift. They claim it as their own and none can keep it from them.”</p> <p style="text-align: right;"><i>-Nkrumah.</i></p>	<ol style="list-style-type: none"> 1. Brainstorm 3 business or community project ideas for class next week. 2. Read Rehmah and Emma’s case study. 3. Remember the Business Skills Portfolio is due by LEC 18!
LEC 18 Wealthy	<p>“Overcoming poverty is not a task of charity; it is an act of justice. Like Slavery, poverty is not natural. It is man-made and it can be overcome and stopped by the actions of human beings. Sometimes it falls on a generation to be great. YOU can be that great generation.”</p> <p style="text-align: right;"><i>-Nelson Mandela</i></p>	<ol style="list-style-type: none"> 1. Start writing your BHP project plan: parts 1 & 2 (see below). We will have BHP Poster Presentations in the last lesson! The BHP project plan should explain: <ol style="list-style-type: none"> a. <i>Product or service being delivered</i> b. <i>The community challenge that your project will solve</i> c. <i>Strategy for mobilizing resources (money AND people)</i>

		<p>d. Plan for marketing and delivery of your product or service</p> <p>2. Remember the Business Skills Portfolio is due by the end of this LEC!</p>
LEC 19 Savings	<p>"Do not save what is left after spending, but spend what is left after saving." –Warren Buffet</p>	<p>1. Write your BHP project plan parts 3 & 4 in preparation for the BHP Poster Presentations in LEC 22</p> <p>2. If you have not yet done so, please remember to hand in your Business Skills Portfolio.</p>
LEC 20 Environmental Degradation	<p>"My conviction, based on personal experience, is that trees are like lungs, if we do not protect them, and increase their numbers, it will be the end of the world." -Yacouba Sawadogo</p>	<p>1. Create a visual and/or product prototype to display at the BHP Poster Presentations in LEC 22.</p> <p>2. If you have not yet done so, please remember to hand in your Business Skills Portfolio.</p>
LEC 21 Healthy	<p>"We have the ability to provide clean water for every man, woman and child on the Earth. What has been lacking is the collective will to accomplish this. What are we waiting for? This is the commitment we need to make to the world, now." –Jean-Michel Cousteau</p>	<p>1. Write your GEPIC speech for the BHP Poster Presentations in LEC 22.</p> <p>2. By now you should have handed in your Completed Business Skills Portfolio! Remember it's a requirement for graduation</p>
LEC 22 BHP Poster Presentation	<p>"The past gives us experience and memories; the present gives us challenges and opportunities; the future gives us vision and hope." - William Arthur Ward</p>	<p>1. For your certificate, you need to have completed the leadership passbook and business skills portfolio</p> <p>2. By now you should have handed in your Completed Business Skills Portfolio! Remember it's a requirement for graduation</p>

Mentoring Week involves a lot of group activities. To avoid delays and stress, start planning early!

Example Mentoring Week schedule:

Day 1

Assembly, posters, to hype Mentoring Week to students

Day 2

Mentoring Groups announced, first introduction meetings all in one place, fun energizers!

Day 3

Engage teachers, hang up mentee goals, do a school-wide activity like planting trees, recycling paper, etc

Day 4

Run 3 small group mentoring activities (e.g., our visions are tied together, tutoring, product-making skills, blind team builders' game, etc.)

Day 5

Big assembly speech from a Special Guest!

8 TIPS FOR MENTORING

Interact Informally: Find time to spend with your Mentees. Attend other activities your mentees engage in such as sports days and rehearsals.

Ask about their Interest: Start conversations with what they want to talk about and not what you think you should talk about. This will build trust with them. They will be more likely to open up deeply due to the increased trust levels.

Ask Open Ended Questions: In order to understand the mentees point of view, it is helpful to ask open ended questions, rather than yes/no questions: Do you revise? Do you read every night? Open Ended Questions are: What do you think you can do to become better at revising? Open ended questions get students to think more about their problem and provide you with more details.

Let Mentees Make Their Own Choices: Come to solutions together. Always make it a conversation where you are discussing different alternatives. Always make it clear that the final choice for what they will do is always on the mentee. Example: Which career should I follow? If you tell the student to follow a certain career, they might regret it. Instead, discuss different options to study and encourage them to talk to people in those careers and follow up in next session.

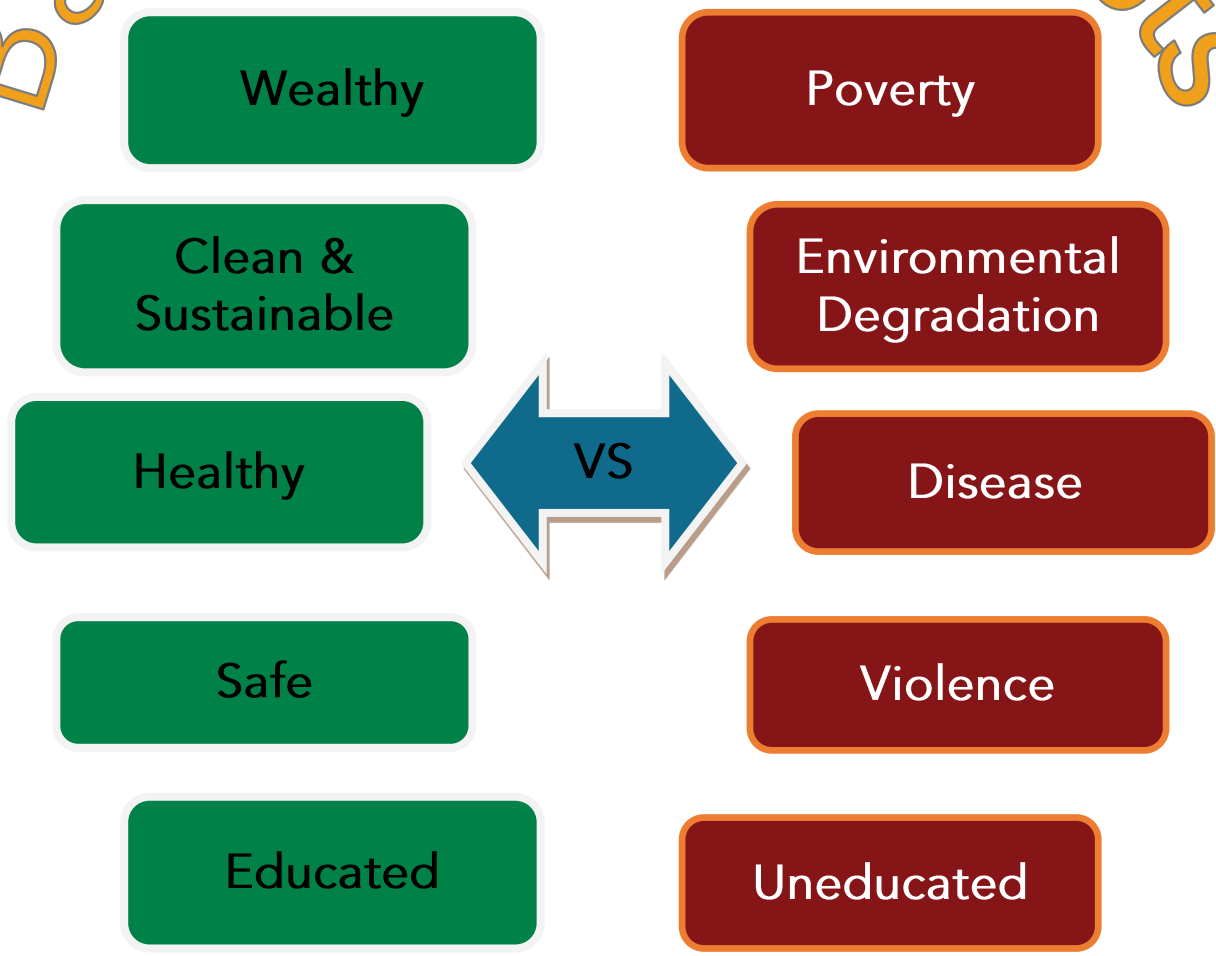
Challenge Mentees to Face Their Fears: Most young entrepreneurs have fears they need to overcome. It could be the fear of public speaking, the fear of examinations, or the fear of their enterprise failing. Example: If your mentee has speech fright suggest they begin by addressing one person in your class, then one person in another class, then ten people, then the whole class, and eventually the whole school.

Do not Judge your Mentees: Your mentees should feel comfortable coming to you with all sorts of issues. Once you judge them, they will then be hesitant to approach you again. Remember, they are constantly being judged by their friends, family, and community. Your role is to support your mentees to become better entrepreneurs and people.

Share Personal Stories: Share relevant personal experiences to help your mentees connect with you. Their fondness, trust, and confidence in you will grow. The best stories are those of people whose situations they can relate with.

If you don't have expertise, find someone who does: If your Mentee has challenges you cannot help them with, help organize a meeting with a professional counsellor.

Back Home Projects



Starting a personal Back Home Project allows you to make some money, practice entrepreneurship & leadership skills, set up a project to continue after school, but most importantly...help your community!

Back Home Projects help solve the 5 big community problems that affect our families and hurt their ability to live happily and productively in their communities.

**PEDVU PROBLEMS IN THE NEWS****PREVENTING DOMESTIC VIOLENCE AND HIV IN UGANDA***by Ruthann Richter, 3 April 2014*

The woman was terrified, as she had just come from the hospital, where she discovered she was HIV-positive. It wasn't so much the virus she feared, as the reaction from her husband. If he were to find out, he would surely beat her and throw her out of the house. As predicted, the husband arrived home and seeing his wife in distress, forced her to confess what she had learned. "Either I cut you in two pieces and throw you in the ditch or leave the house," he yelled, his arm raised in threat. Fortunately, the wife wasn't harmed, for the drama was merely that – a work of street theatre designed to break the traditional patterns of domestic violence and HIV in Uganda. The drama is one of the creative strategies being used by the nonprofit Center for Domestic Violence Prevention in Kampala, Uganda to effectively reduce incidents of domestic violence by more than 50 percent in the communities it serves. In the process, group also aims to reduce the incidence of HIV, which affects 7.2 percent of adults in the East African nation, according to the latest figures from the United Nations Joint Program on HIV/AIDS. The organization works by mobilizing local men and women and training them in various interventions, like the street drama, address pervasive problem of violence among intimate partners. According to its figures, 59 percent of women between the ages of 15 and 49 say they have experienced physical or sexual violence by a husband or partner at some point in their lives. A crowd had already begun to materialize by the time we arrived in one of the city's poor neighborhoods, where three drummers had lured people from their homes with a lively beat. Two female dancers in colorful red outfits then entertained the crowd, whose curiosity was heightened by the presence of us five white foreigners. By the time the drama began, more than 100 people had gathered in the dirt road – youngsters who tugged at our hands, older women who sat on wooden stools to watch and groups of men who stood on the sidelines, quietly assessing the unfolding drama. The story begins when the woman returns from the hospital to cry on a neighbor's shoulder. The husband then arrives and suspects something is up. He falls into a rage on learning the wife's news, threatening to "break her bones" and ordering her to leave the house. But the wife says she has nowhere to go. Besides, she tells him, she acquired the virus from him. A narrator, dressed in an orange shirt, periodically freezes the drama, soliciting suggestions from the crowd on what the couple should do. One observer tells the woman to call the police. Another urges bystanders to intervene to help save the situation. "We have so many instances of violence in our neighborhood," the narrator concludes, speaking in Luganda while our host translates. "See what happens in violent situations when the woman becomes HIV-positive. Be supportive. Support the victims, but also support the man. Change the behavior. Break the silence." The drama is just one of many activities CEDOVIP uses to help raise awareness and effectively change attitudes and behaviors that perpetuate violence in intimate relationships. The group recently conducted a randomized controlled trial, involving nearly 2,650 men and women in eight communities, which showed a change in attitudes among men and women, as well as women's experiences of violence.

Not long ago, Uganda's forest cover was estimated at 4.9 million hectares, covering 24% of the total land area. However, human activities have reduced this to just 18%, and educational institutions have not been left out as a major contributor. Some academic institutions consume as much as 12 truckloads of wood per term, to cook for their students, further worsening the already vulnerable situation, write **Vision Reporters**

Stop abusing women- Kayihura

By Norman Katende-Added 25th February 2017 01:09 PM

"This run is aimed at waking up the community and telling them to stop abuses and protect the girls and women..."



The some of the participants running against violence. Photos by Norman Katende

The Inspector General of Police (IGP) Gen Kale Kayihura has spoken against violence against women and girls.

The IGP was at the police run that started and ended at Old Kampala SS on Saturday morning. Kayihura said there were women and girls being raped, trafficked out of the country and abused in homes.

"We have drunkards who have turned their homes into terror for their wives and children," he said. He also noted that the increased violence against the boy child and husbands who are being battered by their women should not be ignored.

"We need everyone to help in abating crime and we have all to play a part in also helping other personalities fight this vice. Government and police should also have a mechanism of building shelters where these people who have been abused can be accommodated," added Kayihura.

Rosa Malango, the United Nations Resident Coordinator promised UN support in seeing that they fight the abuse to people, adding that it is only when communities unite and work together that development is visible.

Companies that employ more disabled people to be awarded

NEW VISION: By Vivian Agaba Added 6th July 2017 01:01 PM

Federation of Uganda employers (FUE) will for the first time this year recognize and award the best company/organization employing many persons with disabilities (PWDs) in the country.

The 2016-2017 employers of the year awards organized by FUE will take place on the 24th of next month (August 2017).

The executive director of FUE, Rosemary N. Ssenabulya revealed this during a press conference held at the National Union of Disabled Persons of Uganda (NUDIPU) offices in Bukoto on Wednesday.

"We have introduced a new category this year, we shall be awarding companies that are doing well in employing many people with disability," she said

"By doing this, we want to attract and persuade other employers to employ more persons with disability," she added

The executive director of NUDIPU, Edson Ngirabakunzi, said when it comes to employment, there is still limited space in work places for persons with disability.

He noted that there are many people with disability who are qualified in different fields, with the necessary skills and knowledge required for the job market, but because of disability, they are left out.

"We want equal opportunities as far as employment is concerned. We also appeal to government to enforce the existing laws that promote employment of persons with disabilities and ensure such laws are not discriminating persons with disability," he said.

In the joint statement, they all appealed to employers, civil society organizations and the private sector to provide internship and volunteer opportunities for graduates with disabilities at companies or organizations levels.

PEDVU PROBLEMS IN THE NEWS (continued)...

Role of stakeholders in forest management

SOURCE: NEW VISION, Added 16th June 2017 12:14 PM-By Rajabu Yusuf Bwengye

Natural resource management with specific focus on forests is a collective responsibility of every person and so Much as these agencies have mandates and obligations to fulfil, we can't argue that it's their sole responsibility.



86,500 hectares (1.76%) of forest cover on average lost per annum in Uganda: The role of stakeholders in forest management

Often at times people think its government agencies with the sole responsibility of management of our natural resources and yet they benefit us all.

Natural resource management with specific focus on forests is a collective responsibility of every person and so Much as these agencies have mandates and obligations to fulfill, we can't argue that it's their sole responsibility.

All stakeholders for instance civil society organizations, community members, the media, local government, Judiciary, collaborative forest management groups among others all have a role to play in ensuring our forests are conserved. These roles I cluster them into three, **Information sharing/ reporting, conservation role, enforcement role.**

UNFIRED BRICKS ARE REDUCING DEFORESTATION AND IMPROVING INCOME TO COMMUNITIES IN SIRONKO

Joanita Gumony, a farmer, is happy to have a roof over her head. For fifteen years, she has been living in a one-bedroom mud house with her husband and seven children. In a few months' time however, she will be moving into a four bedroom house which she's been building with help of her group, the Sangansana Women's Group. The group's thirty member first adopted the idea of using the technology after many of its members were displaced from the Mount Elgon national park. The unbaked bricks, which are made from a mixture of mud and sand, have proven to be a perfect substitute to mud houses. As a result of funding, the group has started constructing three model houses for its member to demonstrate the environmental benefits of the technology. As the demand for the bricks increases, the group hopes to buy a motorized brick making machine from their collective savings, to meet the local demand and also expand their market. "With this new technology, our forests in the region will be conserved since these bricks dry without the aid of baking compared to the ordinary ones which need firewood for baking before they can be used.

SOURCE: NEW VISION, 5 JUNE 2015

CASE STUDY: MALALA AND GIRLS' RIGHTS

Malala Yousafzai (born 12 July 1997) is a Pakistani school pupil and education activist from the town of Mingora in the Swat District of Pakistan's. She is known for her activism for rights to education and for women, especially in the Swat Valley, where the Taliban¹ had at times banned girls from attending school. Yousafzai was educated in large part by her father, Ziauddin Yousafzai, who is a poet, school owner, and an educational activist himself, running a chain of schools.

Yousafzai started speaking about education rights as early as September 2008, when her father took her to Peshawar to speak at the local press club. "How dare the Taliban take away my basic right to education?" Yousafzai asked her audience in a speech covered by newspapers and television channels throughout the region. In early 2009, at the age of 11–12, Yousafzai wrote a blog under a pseudonym¹ for the British Broadcasting Company (BBC) writing about her life under Taliban rule, their attempts to take control of the valley, and her views on promoting education for girls. The following summer, a documentary was filmed about her life. While the Taliban continuously attacked the Swat region, Yousafzai continued giving interviews in print and on television, and she was nominated for the International Children's Peace Prize by South African activist Desmond Tutu. On 19 December 2011, Prime Minister Yousuf Raza Gilani awarded her the National Peace Award for Youth. At the proceedings in her honor, Yousafzai stated that she was not a member of any political party, but hoped to found a national party of her own to promote education. The prime minister directed the authorities to set up an IT campus in the Swat Degree College for Women at Yousafzai's request, and a secondary school was renamed in her honor.

The Taliban see a threat in Yousafzai, she has a big international audience and receives attention from important leaders all over the world. On 9 October 2012, Yousafzai was shot in the head and neck in a murder attempt by Taliban gunmen while returning home on a school bus. After days of unconsciousness, she was treated in Birmingham, United Kingdom. Yousafzai recovered and instead of giving up, she continued advocating for girl education. On 12 July 2013, Yousafzai's 16th birthday, she spoke at the UN to call for worldwide access to education. The UN named the event "Malala Day". It was her first public speech since the attack, leading the first ever Youth Takeover of the UN, with an audience of over 500 young education advocates from around the world.

"The terrorists thought they would change my aims and stop my ambitions, but nothing changed in my life except this: weakness, fear and hopelessness died. Strength, power and courage was born ... I am not against anyone, neither am I here to speak in terms of personal revenge against the Taliban or any other terrorist group. I'm here to speak up for the right of education for every child. I want education for the sons and daughters of the Taliban and all terrorists and extremists." The UN reports that 57 million children were denied an education in 2011. By risking her own life, she's fighting for education for woman all over the world. The Pakistani girl Malala Yousafzai, only 16 years old, is a worldwide icon for human rights.



Choosing a Back Home Project Idea!

If you like to..... Try this project:

Work with your hands art, baking, cleaning, cooking, crafts, gardening.

Be around animals..... animals, birds, and fish rearing

Work alone, computing, woodwork, and writing

Work with others..... advertising, children, driving

Speak other languages.....teaching, translation

Teach other people..... bicycles, dancing, music, and teaching

Work with machines..... building stoves, fixing electronics, computers

Be creative..... art, craft, dancing holiday, music, woodworking, writing

Entertain people..... wedding photography, dancing, music

Use computers..... computer repair, web design, downloading and burning CDs & DVDs

Use cameras..... photography, video

Fashion..... buy clothing, fashion show events, printing, boutique showcases

Cook..... baking, cooking snacks



BUILDING WEALTH!

Notes on Interest Rates Math

You may come across a bank, SACCO, individual or even family member that offers you a loan with interest, be careful, you don't want to use all your profits paying back the loan. Let us learn how to calculate the interest rate on a loan:

- 1) Principal: the base amount of money you borrow from the bank or lender, without including the added interest or fee.
- 2) Interest: the fee a bank or lender will charge to loan you the money
- 3) Interest rate: The percentage the bank or lender uses to calculate your fee. This rate will be given as a percentage, and for our calculations you must change it to a decimal. To do this, move the decimal point in the percentage two places to the left.

Examples:

$$\begin{array}{lll} 100\% = 1 & 50\% = 0.5 & 10\% = 0.1 \\ 35\% = 0.35 & 2\% = 0.02 & 8\% = 0.08 \end{array}$$

- 4) Time: how many months or years it will take to pay back the loan.

You calculate interest using the following formula:

$$\text{Interest} = \text{principal} \times \text{interest rate} \times \text{time}$$

EXAMPLE:

If you borrow 100,000 UGX at a rate of 30% per year payable in 3 years, your interest is 90,000 UGX.

$$100,000(\text{principal}) \times 0.30(\text{interest rate}) \times 3(\text{time}) = 90,000 \text{ UGX of interest}$$

The interest is ADDED to the principal (the original amount you borrowed), which was 100,000 UGX. This means that you pay 190,000 UGX to the bank in total.

$$90,000(\text{interest}) + 100,000(\text{principal}) = 190,000 \text{ UGX}$$

Now that we know the two main factors that affect a loan (the interest rate and time), let us be smart scholars, but also innovative! In Term 2 we shared ideas on generating funds like savings groups, and fundraising. Can you think of any other?

LOAN OPTION #1

You are offered a loan of 50,000 UGX with a 45% interest rate per month, payable in 3 months.

LOAN OPTION #2

You are offered a loan of 100,000 UGX with a 20% interest rate per month, payable in 6 months.

LOAN OPTION #3

You are offered a loan of 200,000 UGX with a 30% interest rate per year, payable in 2 years.

**AVOIDING A POVERTY TRAP!****CASE STUDY: REHMAH & EMMA**

Rehmah and Emma are best friends. They do everything together. During school, Rehmah would wait in the queue to bring Emma dinner, and Emma would help Rehmah with math revisions. During holidays, Emma would walk across town and wait for Rehmah to come out of mosque, and Rehmah would help Emma cut out pictures of Jesus for Sunday school class. They were closer than siblings.

One day, Rehmah decided they should start a business together. She was tired of reporting late to school because her parents never had all the money for fees before term started. Emma always had school fees but his parents gave him very little pocket money. They decided to start a canteen at their school. With the help of their entrepreneurship teacher, they wrote out a business plan and budget. They needed 60,000 as capital to start their business. They agreed that Rehmah would put in 30,000 and Emma would put in 30,000 starting next term.

Rehmah started by asking her family for money. Everyone laughed at her saying she was too young and girly to start a business. Then she went to the bank but they turned her away, saying she was under 18 and therefore illegal for them to give her a loan. She quickly lost hope and sat outside her house crying. Just then, a man named Bugu approached her. Bugu was dressed very smart, spoke fast, and smiled often. He offered to lend Rehmah the 30,000 for her business at a 50% interest rate. He said "Because I like you, you don't have to start paying me back immediately. I will give you one month until you pay me back". She agreed.

Emma started by asking the entrepreneurship teacher to invest in their business. She agreed to give 15,000 and Emma promised to give her 20,000 back by the end of the month with the profits from the canteen. Emma knew it would be hard to convince his parents that he was responsible enough to run the canteen business so he asked the entrepreneurship teacher to help explain it to his parents on Visitation Day. Emma's parents were so impressed they invested immediately. Again, Emma promised to give them back 20,000 in one month.

Rehmah and Emma put their money together and started their canteen. It was a huge success. They sold out all their stock and had new customers every day. At the end of the month, they counted up their money to split the profit. The canteen had made 100,000. Rehmah gave Bugu 45,000 and Emma gave his family and the teacher 20,000 each. Emma and Rehmah were shocked! After one month of work, they only had 15,000 shillings profit. Rehmah sadly went back to Bugu since they didn't have the 30,000 they needed to restock the canteen. He advised her to take out a bigger loan saying "If you put more money in, you will get more money out of it." This time she borrowed 60,000 for the month. Rehmah was scared. The canteen made 100,000 a month but they would have to repay Bugu 90,000. ***They were trapped!***

Which loan option from p. 9 would be best for YOUR back home project? Why do you think so?



CASE STUDY: SACCO OF ST ANTHONY SS KAYUNGA, MASAKA

Many students were dropping out of school because of school fees in St. Anthony, so scholars brainstormed on many ideas on how solve this particular problem. Before they could come up with ideas on how to solve the problem, they had to first find out why students were dropping out of school.

Most parents in Masaka are farmers, so seasons have an effect on how much they earn from their produce and whether or not they are able to pay school for their children. During times when parents did not reap much from their produce, their students did not have money to pay school fees and hence dropped out.

With the guidance of their Educate! Mentor Robert, the E! Club members at St Anthony were able to start a small SACCO in school that would enable members to collect money and pay for school fees themselves when the parents are not able to.

The SACCO has over 100 Members, who each collect 1000 on a weekly basis from their parents. The SACCO treasurer is in charge of collecting the money, banking it, and providing proper accountability to all members. Scholars worked hard to involve their parents and the school administration in the SACCO. With everyone involved, all stakeholders were determined to make the SACCO a success!

The SACCO has continued to grow and has been to pay for over 7 members when their parents were not able to pay their school fees!!!

Examples of Personal Mentoring Week Goals

By the end of the Mentoring Week, I will have:.....(scholars can come up with goals other than these)

1. Announced in my class, assembly or during the beginning of Mentoring Week
2. Recruited 3-4 mentees for Mentoring Week including both boys and girls (for mixed schools)
3. Helped my mentees set 3 short term and 3 long term goals
4. Helped my partner in forming Mentoring groups for the week
5. Helped my Mentees identify a simple problem in the school that they can work to help solve
6. Helped my mentees identify a business opportunity in their community
7. Worked with my mentees to solve the simple problem they identified in school
8. Had a group discussion with my mentees on three (3) ways they can each stay healthy
9. Prepared a question related to my BHP to ask the guest speaker
10. Interviewed the guest speaker on his/her success as a leader

Did I achieve ALL my daily goals? Yes No

If YES, what did I do that made this to happen?

What else went well with achieving my Mentoring Week goals?

If NO, why? What didn't I do well?

Did my partner for the Mentoring Week give me any feedback/information

What I learnt/want to improve on in my Leadership skills

Action plan to improve my Leadership Skills

Self-Reflection Tracker

How to make Card boards from recycled paper.

Materials -cassava flour, rubbish paper, sticks, cloths, water, small nails, bucket and bidding glue

Optional materials - food coloring, towel, frame.

Procedure

1. Tear a lot of rubbish paper into small pieces and soak in a bucket of water for 1 hour.
2. Drain water from the bucket and mash the remaining paper until mushy.
3. Put cassava flour in hot water to make porridge.
Mingle paper with cassava porridge. Put 3 spoonful's cassava porridge per handful of mushed paper.
NB: Mash it till most water is drained out.
4. Add in some little glue and keep mushing the paper till all the glue is evenly dissolved.
NB: Glue is meant to make paper hard. Don't put a lot of it, otherwise your card board will be too hard.
5. Put cloth on top of a frame in a flat rectangular shape and stick it together with nails
6. Spread paste onto the cloth. Spread in such a way that the thickness is about 1cm and the width and length about 50cm.
7. Dry the paper BUT not in direct sun light at 40 – 60 degrees angle leaning against a wall. When paper is dry, peel it off the cloth frame.



START WITH A PLAN!

START-UP COSTS FOR YOUR BACK HOME PROJECT


COSTS				
Category	Item Purchased	Cost	Qty.	Sub-Total (cost x quantity)
Resources				
Activities				
Distribution				

Marketing			
Total Costs			

SODIS: Use the sun to clean your water for FREE!

Advantages of SODIS

- » prevents you from waterborne diseases like diarrhoea, dysentery, cholera and typhoid
- » improves your family health situation
- » reduces fuel expenses and health costs
- » does not change the taste of the water
- » is simple to use and free of cost



The SODIS Steps

1. Take a transparent PET bottle and clean it with soap the first time you use it.
2. Fill the bottle fully with clear water and close the lid (filter muddy water before filling it).
3. Expose the bottle to the sun in the morning on the roof, on a corrugated iron sheet or on a dark surface.
4. After 6 hours in the full sun the water is safe to drink!

Important Notes!

1. use only unscratched transparent (not colored) PET bottles of max. 2 litres. The bottles should be clean and undamaged.
2. In the case of stagnant water fill the bottle only ¾ with water, close it and shake it for 20 seconds before filling it fully and closing the lid.
3. Place the bottles horizontally (flat) and make sure they have full sunlight during the whole day and will not be shaded after some time.
4. The exposure time depends on the weather:
 - » sky is clear or up to 50% cloudy: **6 hours!**
 - » sky is 100% cloudy: **2 consecutive days!**
 - » water reaches 50°C: **1 hour is sufficient!**
 - » During rainy days SODIS does not perform sufficiently! Rainwater harvesting or boiling is recommended during these days.

Water Turbidity Test

Only clear water can be used for SODIS. Turbid water reduces the efficiency of the sunlight. Therefore turbid (i.e. muddy) water has to be filtered through a clean cloth before it can be used for SODIS.

To determine whether the water is clear enough for SODIS, place the bottle filled with water upright on the SODIS logo at the front page of this brochure. Now look through the bottle opening: if you can read the letters through the water, it is clear enough for SODIS.

