

Literacy at the Well: Life Skills Curriculum

Developed by the Global Impact Collaborative at the University of Pennsylvania, a branch of the Penn Society for International Development

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Life Skills Curriculum

The Life Skills Curriculum was developed for Literacy at the Well by the Global Impact Collaborative at the University of Pennsylvania.

The Life Skills Curriculum contains four sections: Hygiene, Nutrition, Family Planning and Farming.

This curriculum aims to accomplish the following objectives:

1. To understand the importance of hygienic practices and to learn best hygiene practices for disease prevention and transmission.
2. To understand the necessity of balanced nutrition and how to obtain sources of nutrition with different food groups.
3. To understand the importance of family planning, including pregnancy and infant care.
4. To understand how to practice self-sufficient ways of farming and how they relate to nutritional needs.

Section 1: Hygiene

Lesson 1: Clean Water

Objectives:

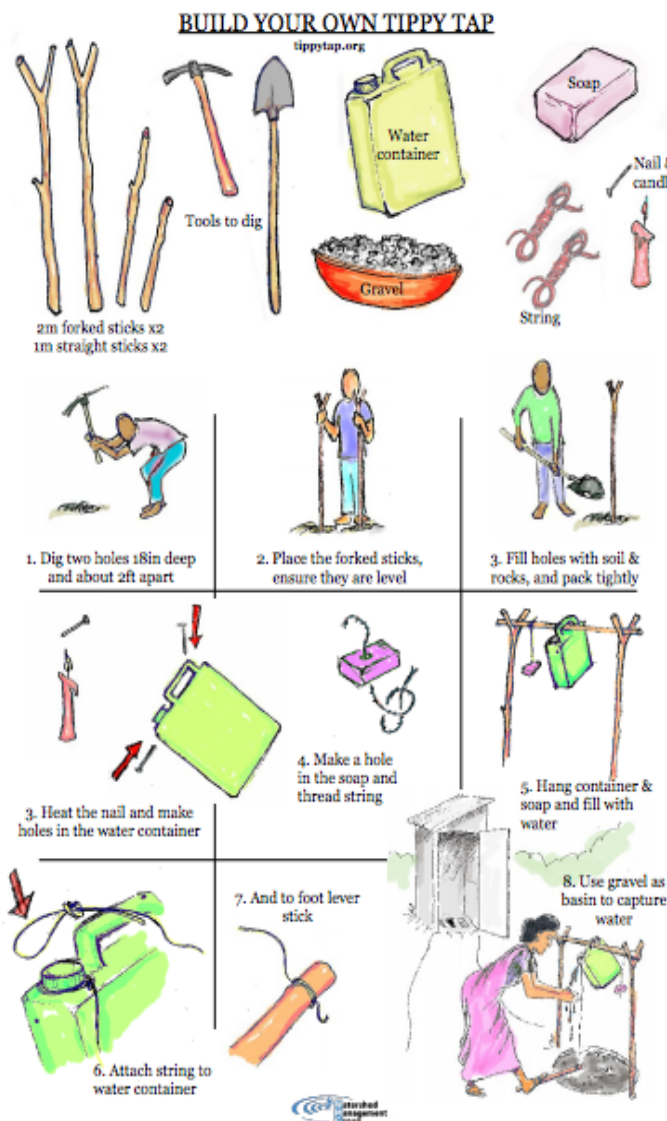
1. To understand when and why it is important to use clean water.
2. To understand how to identify clean water sources.
3. To understand how to disinfect water.

Why clean water?

- Water is the most important natural resource on earth. We need it to live.
- Humans sometimes do not take care of the water and make it dirty.
- Even water that looks clear can still have germs.
- Why is this bad? Because dirty water can carry germs that make us sick.

When and for what?

- Cooking - we want to cook with safe water so that our food is safe too!
- Handwashing
 - Use water from a Tippy Tap!



Source: tippytap.org

- Cleaning
- Drinking
- Bathing
- After going to the bathroom
- Washing up after cooking
- Cleaning a wound

How can we have clean water?

- Use heat (boiling)
- Chemicals (chlorine)
- Sunlight
- Filtration: Passing water through a ceramic or sand filter
- Using clean well water

Do not get water from:

- Puddles or other standing water
- Rainwater that has touched the ground
- Sources shared with animals
- Sources where trash has been disposed of
- Water near a damaged latrine or an area that people use as a latrine
- Sources that you have already used for cleaning or bathing

Activity:

Walk around the community learning center or teaching area and identify which water sources are clean and what each water source is used for.

Lesson 2: Hand Washing**Objectives:**

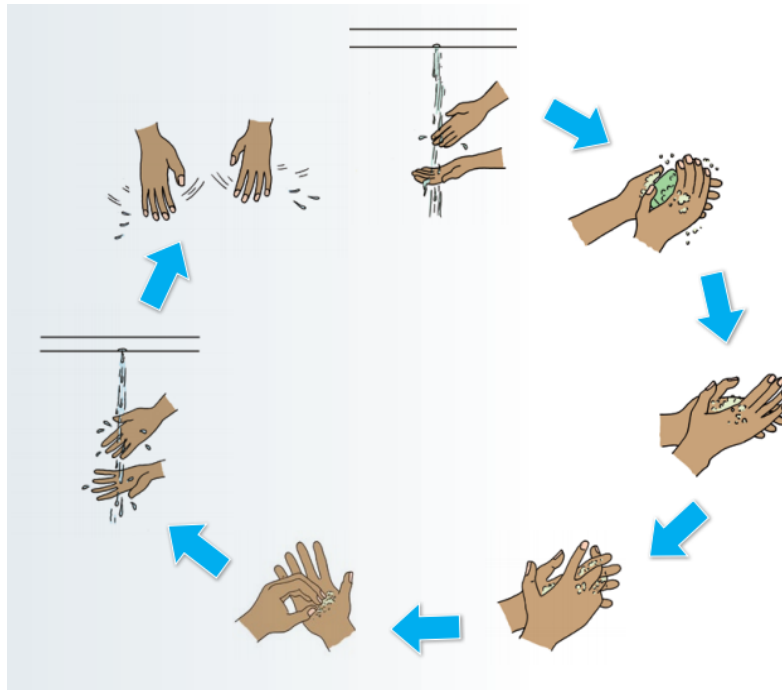
1. To understand when and why it is important to wash your hands.
2. To understand how to properly wash hands.

Why do we need to wash our hands?

Hand washing is the simplest and most effective way of preventing the spread of harmful diseases and reaching proper hygiene.

Steps for washing your hands:

1. Have a designated place with clean water (like the tippy tap above that filtrates water!)
2. Wet your hands and the soap with water. Soap is very important! Washing without soap does not get rid of germs. If you do not have soap, you can use ash or sand instead.
3. SCRUB your hands for at least 15 seconds. Don't forget fingers, knuckles, and wrist!
4. Pour clean water over your hands to rinse off the soap.
5. Shake, shake, shake your hands to get the water off. If you use a towel to dry your hands, wash the towel every few days. A wet towel can grow germs and they will go back on hands.



Source: UNICEF Guidebook for Teachers

When do we wash our hands?

- Before:
 - Eating or preparing food
 - Going to bed
 - Treating a wound
 - Taking medication
 - Holding or feeding a newborn baby
 - Making contact with your face
- After:
 - Going to the bathroom
 - Playing or working outside
 - Interacting with animals
 - Coughing or wiping your nose
 - Caring for someone who is sick
 - Using money
 - Caring for or cleaning small children
 - Preparing any sort of raw meat
 - Treating a wound

Activity: Hand Washing Song

The Hand Washing Song
Sing this to the tune of Frere Jacques. This song lasts about 15 seconds.

Lather with soap
Rub your palms together
Now the backs
Of your hands
Interlace your fingers
Cleaning in between them
Now the thumbs
Clean your nails

Lesson 3: Germ Transmission and Disease

Objectives:

1. To understand the concept of germs.
2. To understand how germs spread and what you can do to prevent them from making you sick.

What are germs?

- Germs are tiny organisms, so small that you can't even see with your own eyes, that live on everything around us.
- Whenever you touch another person or another object, the germs on that person or thing stick on your hands.
- Most of the time these germs don't harm us, but if you do not wash the germs off of your hands every so often, they can get inside you and fight with your body, which make you sick!


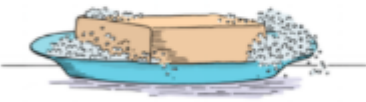

When can germs make us sick?

- After not washing hands
- When you are sick
- Defecating (pooping) in open air
- Eating unwashed fruits and vegetables
- Drinking water from a river or well without disinfecting it
- Letting flies touch food

What can happen after the spread of germs?

- Diarrhea (see lesson 4 for more information.)
- Worms
 - Worms inside of you can steal food and blood from you, which can make you weak and sick.
- Preventing worms inside of you
 - Take a deworming pill every four months during pregnancy, if available.
 - Give child deworming pill every six months, starting on first birthday.
 - Wash hands after using the latrine or cleaning your child.
 - Use a latrine when you need to go to the bathroom.

Activity: How do germs spread?

<p>Objective: To show how poo passes from one person to the next</p>	<p>Structure: Game with 10–12 children Time: 15 minutes</p>
<p>Notes:</p> <ul style="list-style-type: none"> Correct hand washing with soap is important to get rid of the things that cannot be seen. 	
<p>Activity description: Cover the palms of one person's hands in ash, charcoal or chalk dust.</p> <p>Ask children to stand in a long line.</p> <p>The person with the 'dirty hands' shakes the first child's hand and then asks that child to shake the hand of the next person.</p> <p>Continue shaking hands down the line.</p> <p>How many children have the ash, charcoal or chalk dust on their hands? Even the smallest speck counts.</p> <p>Explain that this is what happens when we forget to wash our hands with soap after going to the latrine.</p> <p>How could we stop this from happening? Ask for suggestions.</p> <p>Ask the original person with the 'dirty hands' to wash them with soap and hold them up for all to see. The 'dirt' has now gone.</p>	<p>Materials: Ash, charcoal or chalk dust Bowl of water and soap for hand washing</p>    <p>Flashcard reference 1, 2, 3</p>

Source: WASH for Schoolchildren in Emergencies

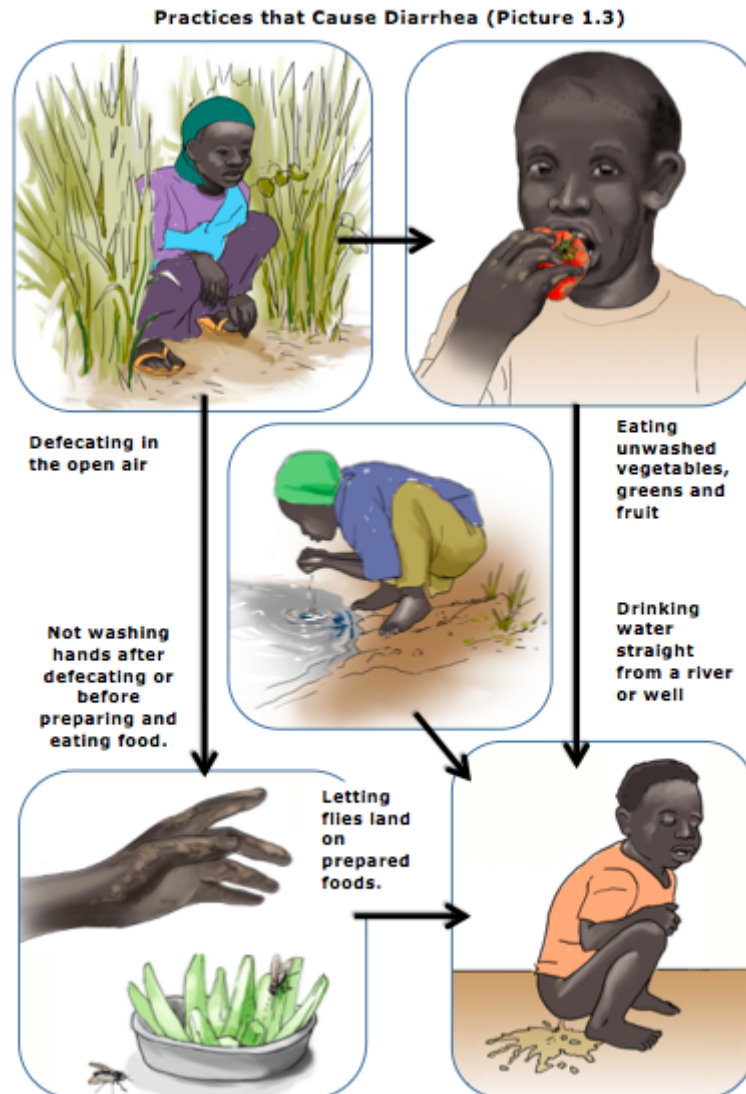
Lesson 4: Latrine Hygiene and Use

Objectives:

1. To understand what a latrine is and why it is important.
2. To understand where and how to properly dispose of feces if you do not have access to a latrine.
3. To understand what causes diarrhea and what you can do to prevent it.

Why is latrine hygiene important?

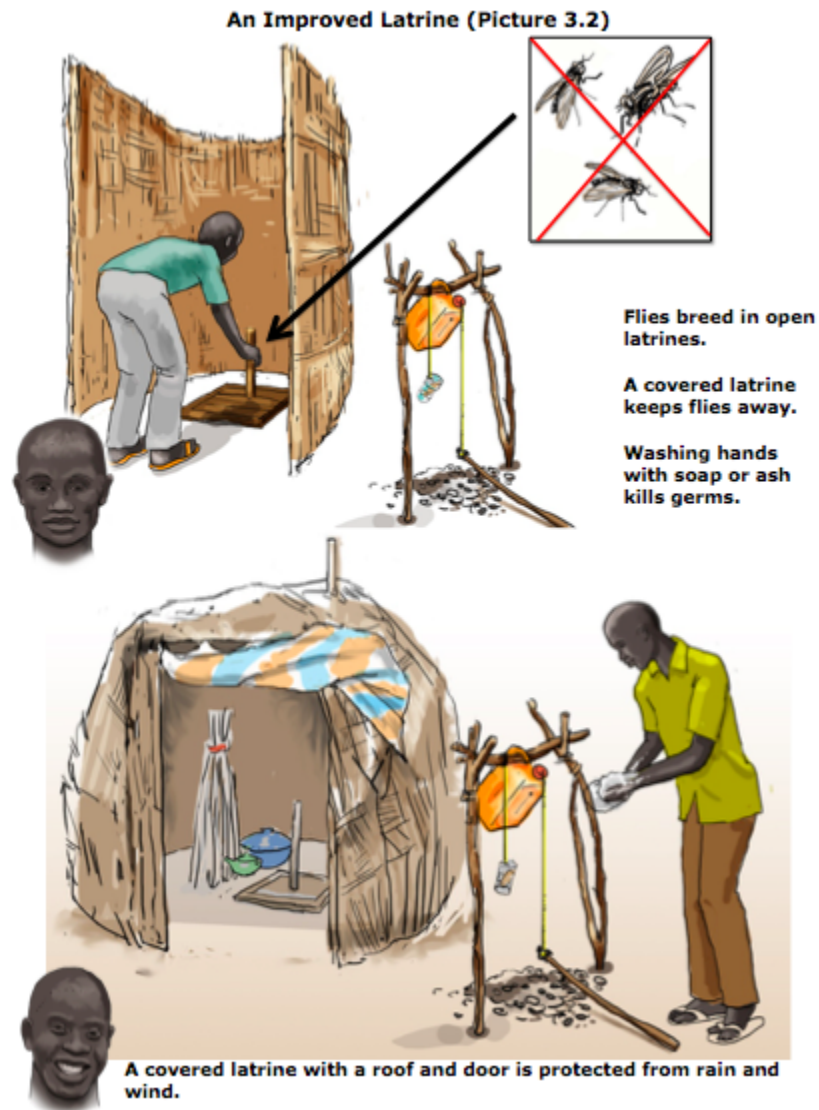
- Human waste can carry germs and bacteria. It is important to get rid of poop properly so we don't get sick
- Flies can breed in open feces.



Source: Care Group

How do we do latrine hygiene?

- Have a designated place to go to the bathroom. This should be enclosed so waste cannot run into the water that we drink (like a pit latrine deep in the ground)
- Keep latrine areas clean by sweeping and rinsing them
- If you do not have a latrine, make sure to bury your feces (poop) in the ground
- Do not defecate (poop) in the open air or among other trash
- Do not burn anything you have used to wipe yourself
- ALWAYS wash your hands after pooping



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Why do we need to dispose of feces (poop)?

Feces left in the yard spread germs to others and can make people sick - we don't want germs!

How do we fix this?

- Poo in a latrine that is deep in the ground.
- Bury feces away from the house to keep flies away. This way there will be no spread of germs by flies.



Source: USAID Essential Hygiene Actions and Malaria Prevention

Diarrhea

How to recognize diarrhea?

Signs:

- Defecating (pooping) more than normal
- Watery feces
- Vomiting
- Dizziness and headaches
- Stomach pains

If you see any of these signs you should seek help and go to the health clinic immediately:

- Top of a child's head is pressed in like a cup
- Sunken eyes
- Pinched skin stays for more than a few seconds
- Bloody diarrhea
- Having diarrhea for more than a week

Preventing diarrhea:

- Only drink water that you are sure is clean.
- Breastfeed infants.

Lesson 5: Malaria

Objectives:

1. To understand what malaria is and how we can get malaria.
2. To recognize the symptoms of malaria, so that we can identify when we might have it.
3. To understand what we can do if we have caught malaria.
4. To learn the methods in which we can prevent getting malaria.

What is malaria?

Malaria is a disease carried by some mosquitos. When these mosquitoes bite people, they let germs into the body that make people sick with malaria. If left untreated, malaria can make people very sick and even lead to death.

Symptoms:

- Fever
- Chills
- Headache
- Nausea (sick feeling) and vomiting
- Pain in the joints
- These symptoms often appear in cycles

Treatment:

- Go to a health clinic as soon as symptoms arise to get medicine.
- Get ORS (packaged salts that can rehydrate): mix one packet of ORS with four 250 ml cups of clean water. Stir until powder completely disappears.
 - Give child $\frac{1}{3}$ of 250ml cup each time they have loose stool and give more if child is thirsty
 - IMPORTANT: do not give ORS to children younger than 6 months. Give child breast milk only.

Prevention:

- Sleep with a mosquito net.
- Avoid having pools of open, stagnant water (like large puddles), as mosquitos can breed there.

Lesson 6: Personal Hygiene for Girls

Objectives:

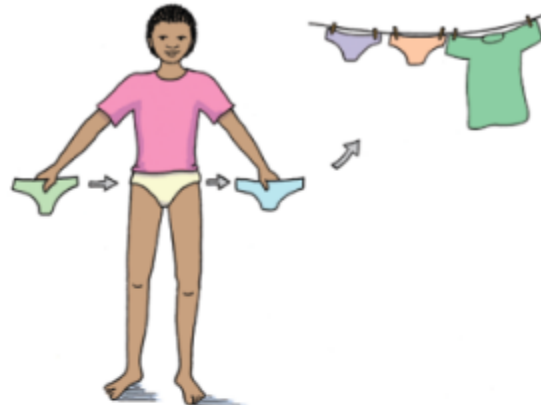
1. To understand what menstruation is.
2. To understand that menstruation is normal and address misconceptions about menstruation.
3. To understand proper hygiene during menstruation.

Basic Facts about Menstruation:

- Older girls menstruate every month.
- Bleeding lasts 3-7 days.
- Pregnant women do not have periods.
- It is VERY important to change pads/cloths.
- It is OK to be at school while bleeding.
- Always wash hands after going to the bathroom or handling pads/cloths.
- Cramping, which is when there is a squeezing painful feeling in your stomach, is completely normal.
- The typical cycle is a month, but it varies from woman to woman.

Misconceptions about Menstruation

- Menstruation is dirty and unhealthy.
- Other people can see you are having your period.
- Pain during a girl's period is not normal.
- You can damage yourself if you run during a period.
- Girls who are menstruating must not use the latrine.
- You can only eat rice when you have menstrual bleeding.



Source: WASH for Schoolchildren in Emergencies

Stay hygienic!

- Wear a sanitary cloth. You can use disposable pads, washable and reusable pads, or clean rags.
- If you are using a reusable pad, change and wash it regularly.
- Use laundry soap and water for washing cloths.
- Rinse yourself in private.

Section 2: Nutrition

Lesson 1: Introduction to Nutrition

Objectives:

1. To understand what nutrition is and why it is important.

What is nutrition?

- It is the balance of the food in the diet that we eat every day.
- A good diet has five food groups:
 - Carbohydrates: sorghum, millet, rice, cassava, cereals, corn soya, sesame
 - Protein/meat: beef, chicken, fish, nuts, eggs, goat, sheep, beans, peas, cowpea
 - Fruits: mango, watermelon, guava
 - Vegetables: Kale, spinach, yams, sweet potatoes, cassava leaves, onions, tomatoes, okra, taro
 - Milk/dairy: Milk, cheese, sesame, Tahini
- For good nutrition, we need a healthy balance of foods from all of these groups.

Why do we want good nutrition?

So we can...

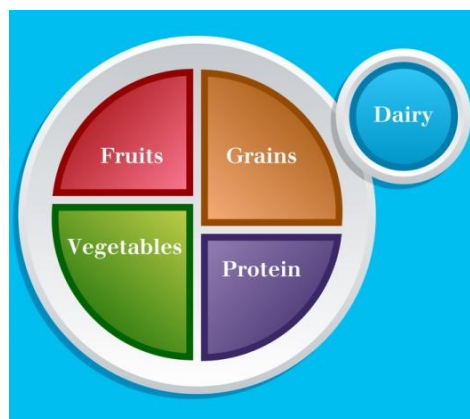
- Fight off diseases and keep from getting sick
- Have energy for daily activities
- Have strong bones and teeth
- Be stronger, healthier, and happier

Lesson 2: Food Groups

Objectives:

1. To understand what food groups there are, why there are important.
2. To understand what sources of food belong to what food groups and how much to eat.

There are five food groups in a balanced diet:



Source: choosemyplate.gov

Fruits

Why is it important to eat fruits?

- Fruits are important for an overall healthy diet
- They provide nutrients that are important for keeping our body healthy
- Eating fruit can help prevent chronic (long-term) diseases, like arthritis, diabetes, and other heart issues.

Nutritional Value

- Fruits have many essential nutrients, including vitamin C, potassium, dietary fiber, and folate (folic acid).
 - **Vitamin C** is important for growth and helps your body heal cuts and wounds. It also helps keep teeth strong and gums healthy.
 - **Potassium** helps maintain healthy blood flow throughout your body and makes your muscles stronger.
 - **Dietary fiber** helps keep blood healthy and reduce the risk of heart disease. It is also important for digestion, and can help reduce constipation, which is a condition in which you have difficulty pooping.
 - **Folate (folic acid)** helps your body create strong blood cells. It is especially important for pregnant women, and can help reduce the risk of several complications during pregnancy.

Protein

What is protein?

Foods made from meat, poultry, seafood, beans and nuts and eggs are considered protein.

Why is it important to eat protein?

Protein is an important part of every cell in your body. It is needed to make hair and nails and our bodies use protein to repair tissues. Our body also uses protein to make hormones and support our bones, muscles, and blood. Protein supplies many nutrients to our bodies, like vitamins and iron. As you can see, it's very important that we consume enough protein!

How much do I eat?

- For women, 45 grams of protein per day are recommended if available. [You can show that about 7 eggs contain 45 grams of protein or 3 cups of beans, peas or cowpeas.]
- For men, 55 grams of protein per day.
- Depending on the amount of physical activity you get in a day, you can adjust this level of protein intake. If you walk a lot and do manual labor, you will need more protein.

How much food is enough protein?

- 1 egg = 6 grams
- 1 chicken breast = 35 grams
- 1 small steak = 35 grams
- 1 can of tuna = 25 grams
- 1 cup milk = 8 grams
- 12 almonds/ 24 pistachios/ 7 walnut halves = 3 grams
- 1 cup of dry beans, peas, or tofu = 16 grams

Dairy

What are dairy products?

Dairy products are based from milk from a cow, goat, or other animal. Examples include milk, cheese, yogurt, sesame, and tahini.

Why is it important to eat dairy products?

Dairy products are rich in calcium, which keeps your bones and teeth strong. Dairy products also have potassium, which keeps your blood healthy.

How much dairy should I aim to eat?

- The goal is for young children to get about 2 cup equivalents per day
- The goal is for everyone else to get about 3 cup equivalents per day

Grains

What are grains?

Any food made from wheat, rice, oats, or another cereal grain is a grain product. Examples of grains are sorghum, millet, rice, cassava, cereals, corn soya, and sesame.

Why is it important to eat grains?

Grains can reduce the risk of heart disease, and can reduce constipation. Grains contain many nutrients, vitamins, and minerals:

- Dietary fiber - keeps blood healthy, lowers the risk of heart disease, and reduces constipation.
- Several B vitamins - releases energy from protein, fat, and carbohydrates, maintains nervous system.
- Folate - helps body form red blood cells
- Iron - carries oxygen in the blood
- Magnesium and selenium - builds bones, releases energy from muscles, maintains a healthy immune system which is the system that fights diseases and keeps fevers away.

How much do I eat?

Age Group	Recommended daily grain intake (in grams)	Equivalent amount of cooked rice (in cups)
Children 2-8	84-140 grams	less than 1 cup
Girls 9-18	140-168 grams	1 cup
Boys 9-18	166-224 grams	1-1.5 cups
Women 19-50	168 grams	1 cup
Men 19-30	224 grams	1.5 cups
Men 31-50	196 grams	a little more than a cup
Women over 50	140 grams	a little less than a cup
Men over 50	168 grams	1 cup

Vegetables

What are vegetables?

Vegetables are edible plants that come in a variety of colors such as green, red, orange, and white. This can include the leaves, tubers, and roots of the plant.

Why is it important to eat vegetables?

Vegetables provide essential nutrients and minerals to keep your body and heart healthy and prevent disease. They are also a great source of fiber, which makes your stomach feel balanced and helps your body fight off disease.

How much do I eat?

Conversion: 1 cup = 1 coffee cup

- For girls: 2-2.5 cups
- For boys: 2.5-3 cups
- For women: 2.5 cups
- For men: 3 cups

Activity 1: What Food Groups do I Eat?

- Learners should think about what they have eaten in the past couple days.
- Instruct learners to figure out which food groups these foods fit into.
- Ask learners:
 - Have you covered every food group?
 - Are they eating a balanced diet?
 - Are there any food groups that you are not eating enough of?
 - If so, are there any foods that you could eat to get more food from that group?

Activity 2: Making Balanced Meals

- Instruct learners to look at the food they have at home with their families. Encourage learners to explain the food groups to their parents and decide which foods belong to each food group.
- During class the next day, ask learners what foods they found at home. What group did each belong to?
- With learners, make a list of the foods that fit into each food group. Then have students write a meal plan for the next two days of balanced meals that they could prepare based on the foods they have at home.

Lesson 3: Nutrients

Objectives:

1. To understand what vitamins are and which types can help with maintaining or improving different body functions.
2. To learn which foods contain these vitamins, so that we can incorporate them into our diet.
3. To understand how a lack of some nutrients and vitamins could lead to nutrient-related illnesses, and how we can prevent getting them.

Vitamins and Their Functions:

Vitamin	Function	Sources
A	maintains vision, healthy skin, teeth, bones, skin	Spinach, sweet potato leaves, mint leaves, sweet potato, carrot, mango, jackfruit, papaya, liver, fish oil
D	healthy bones	fish, milk, tahini, butter, cheese, cream
E	blood circulation	groundnuts, papaya, mango, okra
K	prevent blood coagulation (stopping your blood from clumping together, keep your blood flowing)	Spinach, mustard greens, parsley
B	Helps you have more energy, helps you get sick less, good to eat with iron	Grains, green leafy vegetables, liver, kidney, milk, eggs, meat, legumes (beans,peas), cheese
C	Helps your blood flow better throughout your body, good to eat with iron	Citrus, apples, guava, mango, papaya, sweet peppers, annona, baobab fruit, soursop
Iron	building muscles naturally and maintaining healthy blood	Meats, legumes (beans, peas, cowpeas)
Folate	Keeps your body healthy, will help keep your baby healthy when you are pregnant	Dark green vegetables, legumes (beans, peas, cowpeas), papaya, citruses
Calcium	Helps build and maintain strong bones; helps muscles and nerves function properly	Dairy (milk), fish, sesame, tahini

Nutrient-Related Illnesses:

Disease	Causes	Signs and Consequences	Prevention and Treatment
Vitamin A deficiency	Low vitamin A intake High burden of infections	<u>Vision:</u> trouble seeing at night, xerophthalmia (white part of eye is thick and dry), Bitop's spot (white foam spot), dryness in eyes. Can lead to permanent vision loss <u>Other:</u> lowered immunity, retardation of child's growth, anemia	Breastfeeding, increase vitamin A Mother needs to eat (leafy vegetables, sweet potato, mango, liver, egg yolk, butter), vitamin A supplements
Anemia	Low intake of iron	Fatigue, shortness of breath, lightheadedness, etc.	Increase iron intake by eating cowpeas, sesame seeds, beans, lentils, organ meats and liver, and groundnuts and fermented foods to help body absorb iron.
Calcium deficiency	Inadequate amount of calcium	Numbness of fingers, muscle cramps, tiredness, and not wanting to eat a lot	Increase calcium intake with foods like milk and dairy, green leafy vegetables, nuts, dried beans
Folate deficiency	Not eating enough of folate	Birth defects	Increase folate intake with foods like green leafy vegetables, papaya, and beans

Source: Essential Nutrition Actions and Essential Hygiene Actions Reference Manual: Health Workers and Nutrition Managers

Example of a well-balanced meal:

- Carbohydrate: Millet, sorghum, or rice
- Fruit: Watermelon if available
- Vegetable: Sweet potato leaves, onions, dried okra, or boiled greens if available
- Protein: Beans, lentils, or meat, fish and eggs upon availability
- Dairy: One glass of milk

Lesson 4: Pregnancy

Objectives:

- To understand how to maintain proper nutrition during pregnancy.
- To learn what foods to avoid and eat more of when pregnant.

Nutritional Needs During Pregnancy

- Avoid drinking too many drinks that decrease iron absorption, such as tea, coffee, and other caffeinated drinks.
- During pregnancy, women need more vitamins and minerals, as well as more protein.
- Eat a wide variety of foods so that you get all the nutrients you need.
- During pregnancy, foods should be cooked lightly to preserve nutritional value, so grilling, steaming and stir-frying are preferable to roasting, boiling and frying.
- Eat smaller, more frequent meals
- Eat iron rich foods to prevent anemia. (see chart above)
 - Anemia can cause heavy blood loss during birth and potentially the death of the infant and/or the mother.
- Eat foods rich in folate and vitamin B.
 - Not eating enough folate and vitamin B can lead to low birth weights and problems with the baby's brain.
- Eat foods rich in calcium and vitamin D.
 - Not eating enough calcium or vitamin D can lead to the child having defects related to the bones and legs.
- Eat foods high in vitamin A.
 - Not eating enough Vitamin A can lead to stillbirth of the child and maternal health issues such as night-blindness (being unable to see at night).

Source: <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-277X.2012.01253.x/epdf>

Nutritional needs while nursing

While nursing, women should have a diet that is larger than normal and eat a wide variety of foods with lots of vitamins and minerals.

Section 3: Family Planning

Lesson 1: Menstrual Cycles

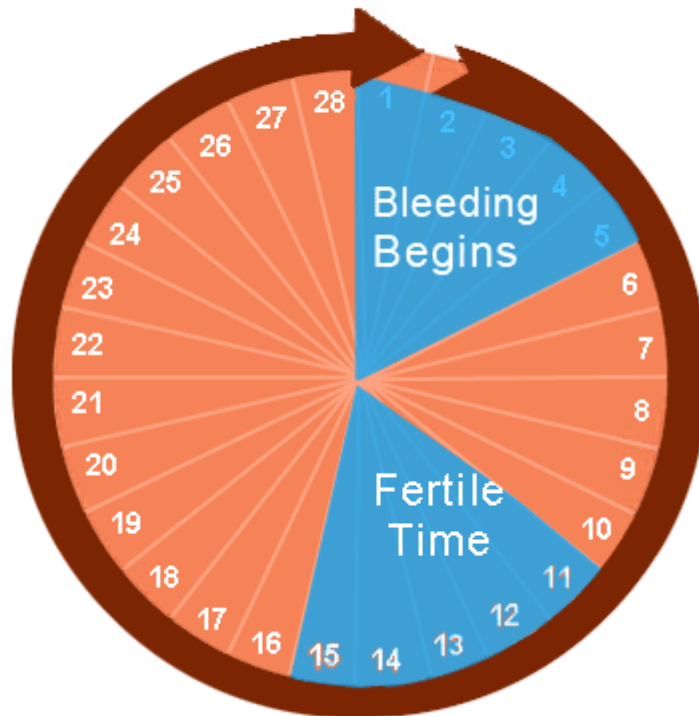
Objectives:

1. To understand the menstrual cycle and the potential side effects that women might experience.
2. To debunk misconceptions about bleeding and to understand that bleeding is a normal and healthy process.

What is the menstrual cycle?

- Menstrual Cycle - the natural cycle of changes in a woman's body over a month.
- Menstruation prepares the body for pregnancy and helps the body work normally.
- Typically 28 days in a cycle, but your menstrual cycle can be more or less.
- The "Fertile Time" is when you are most likely to become pregnant if you have sex.

The Menstrual Cycle

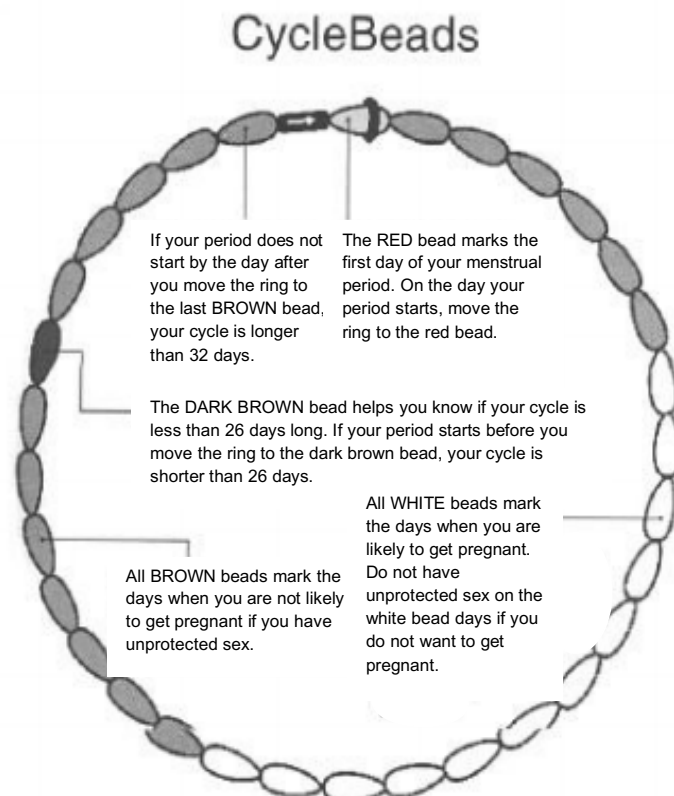


Source: <http://myhealthblogs.com/womens-health/understanding-your-ovulation-cycles.html>

Activity: Creating your own Cycle Beads

Creating a cycle bead allows you to track your menstrual cycle and plan for pregnancy (identify fertile and unfertile days.)

- Materials
 - String/wire
 - small rubber band or string
 - 1 red bead
 - 1 dark brown bead
 - 18 brown beads (or more, depending on your cycle)
 - 12 white beads (or more, depending on your cycle)
 - Note: If beads are not available, then you can use beans, rocks, or other available materials.



Source: [Natural fertility shop](#)

Make a bracelet with 1 red bead, 6 brown beads, 12 white beads, 7 brown beads, 1 dark brown bead and 5 regular brown beads as in the diagram above.

Source: herproject.org

How to Use Your Cycle Beads

- On the first day of your period, put a rubber band ring or string on the first red bead.
- Move the ring/string from one bead to another bead each day (to the right) as you bleed.
- When you stop bleeding, move the ring/string to the first white bead.
- White beads are unsafe days. Do not have sex on these days unless you have a condom.
- After 12 days of white beads move to the brown beads until you begin bleeding again.
- Brown beads are safe days. You can have sex when the ring is on a brown bead.
- If you go longer than the dark brown bead before bleeding again, you have a longer cycle. If you start bleeding before the dark brown bead you have a shorter cycle.
- Count the beads from the beginning red bead to the day you start bleeding again and you will know how many days your cycle is.
- You can adjust the number of beads according to your cycle

Misconceptions about bleeding and menstruation:

- Menstruation/bleeding is not unclean or dirty; it is a normal part of growing up for females
- Girls and women who are menstruating/bleeding can still do everything that they normally do, including:
 - Go to school
 - Eat and cook
 - Bathe
 - Play
 - Farm
 - Sleep with family
 - Participate in community and religious activities

Source: Menstual Hygiene Management <http://www.sswm.info/content/menstrual-hygiene-management>

Activity: What do you think about Menstruation?

- Sit down with participants and ask them about what they believe about menstruation.
- Say a fact or misconception about menstruation, and have participants vote on whether they think it is true or false.
- Facts (These are TRUE things about menstruation)
 - Menstruation/bleeding is a normal part of growing up.
 - You can go to school while you are menstruating.
 - Menstruation is a normal and healthy process like pee or poo.
 - You need to wash hands with soap after handling sanitary cloths or pads.
 - It is important to change pads or cloths.
 - Pain from cramps is normal.
 - Older girls menstruate/bleed every month.
 - Menstruation/bleeding lasts 3-7 days.
- Misconceptions about menstruation (These are NOT true - they are false!)
 - Menstruation/bleeding is dirty and unhealthy.
 - Menstruation/bleeding is shameful.
 - It is embarrassing to be menstruating/bleeding.
 - Girls cannot do normal activities when we are menstruating/bleeding, including:
 - Go to school
 - Eat and cook
 - Bathe
 - Play
 - Run
 - Farm
 - Sleep with family
 - Participate in community and religious activities
 - Other people can see when you have your period.
 - It is not normal to be in pain during your period.
 - Girls menstruating/bleeding cannot use the latrine.
- Discuss each these facts and misconceptions. Does your community believe them?

Side Effects of Menstruation

- Physical Side Effects
 - Cramps, stomach pain, and nausea are common.
 - Place a hot water bottle or towel on your stomach to reduce pain.
 - Drink warm water or tea.
 - Bleeding
 - Wear a sanitary cloth
 - Washable and reusable pads, clean rags
 - If you are using a reusable pad, change and wash it regularly
 - Use laundry soap and water for washing cloths
 - Rinse yourself in private
 - Bloating - Stomach is uncomfortable and feels full of air. Stomach may also look bigger than usual.
 - Physical sensitivity - Some parts of your body may hurt more or feel more pain if you do get hurt.
- Emotional Side Effects
 - Mood swings
 - Tiredness and headaches

Lesson 2: Contraception

Objectives:

1. To understand different ways in which we could prevent pregnancy.
2. To understand what Sexually Transmitted Infections are, how they are passed on and how to prevent them.

Contraception

- Contraception are ways that help you prevent a pregnancy that you don't want.
- Why is contraception important?
 - Contraception helps you plan when you want to have children
 - This is important so that you are able to wait to start a family until you have a husband, are physically and mentally ready, you feel safe, and you are able to provide food for you and your family.

Natural family planning

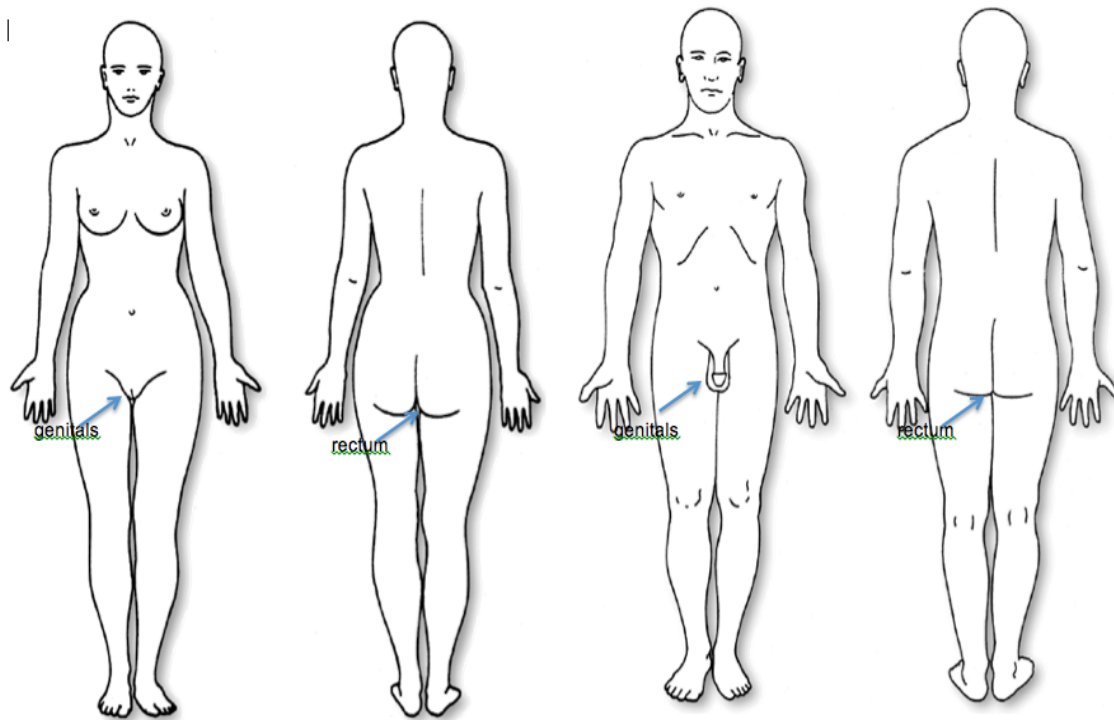
There are several methods you can use for contraception:

- Abstinence: refrain from all sexual activity (having sex) until you are ready to get pregnant.
- Rhythm method: Refrain from all sexual activity during your menstrual cycle. This time is from when you stop bleeding for 12 days (white beads on the cycle bead bracelet done previously)
- Barrier use: Use a condom when having sex. If you do this, make sure you know how the man is supposed to wear the condom and use a condom that is not too old or has holes.

Sexually Transmitted Infections (STIs)

STIs are infections that can be transmitted (passed on) through sexual contact. They can cause severe damage to your body, even death.

- How are STIs transmitted?
 - A person with an STI can pass it to others by contact with
 - skin, genitals, mouth, rectum, or body fluids (any type of fluid or liquid that comes out of your body). Even if you don't have symptoms, your health can be affected.



How can I reduce the risk of getting an STI?

You should make sure that your sexual partner is in good health, and you should also always use a condom (if available).

Lesson 3: Pregnancy

Objectives

1. To understand the importance of hygienic practices before and after birth for the mother and the newborn baby's health.
2. To understand the importance of spacing out pregnancy to reduce the chances of children and mothers dying.
3. To learn the ways in which maternal and infant mortality can be reduced during birth.

Spacing out the birth of your children

Why?

- Lower risk of child dying under the age of 5
- Lower risk of maternal death

How much should you space babies out?

- You should try to wait **at least 2 years** after giving birth to have another pregnancy
 - Your body needs this time to recover from pregnancy and giving birth
 - It also gives you time to breastfeed and care for your child
 - It keeps you and your children healthier

Health/Hygiene Before Pregnancy

- Make sure you are not sick before you decide to get pregnant. Go to the clinic to check your health.
- It is also important that you plan so that you will have enough healthy food available throughout your pregnancy

Health/Hygiene During Pregnancy

- Pregnant and breastfeeding women should eat two additional snacks per day. It helps the mother and the child to be stronger and healthier (e.g. porridge, groundnuts, fruit)
- Avoid eating too many foods that are high in salt
- Eat as many grains, fruits, and vegetables as possible

Maternal care during and after pregnancy

- Start breastfeeding early and try to only feed your child breast milk for the first six months. This can significantly increase your child's chance of survival and their overall health.
- If possible, at least four check ups with a health worker to monitor prenatal conditions
- Try and maintain a balanced diet with sufficient iron and calcium (leafy greens, proteins like meat and beans, dairy)

Birthing methods

- Complications that can arise during pregnancy:
 - severe bleeding (mostly bleeding after childbirth)
 - infections (usually after childbirth)
- How to reduce complications
 - Promote cleanliness - clean hands, surface, blade, cord tie, towels to wrap the newborn in, and cloth to lie to the mother on
 - Have a skilled attendant present during childbirth if possible
 - Monitor the mother's heart rate during the childbirth process if possible

Lesson 4: Infant care

Objectives:

1. To understand best hygienic practices after birth to keep the baby from getting sick
2. To understand how to best feed babies to develop healthy infants
3. To understand how and when to move away from breastfeeding post-pregnancy

Care right after birth

- After birth dry the newborn. Do not wash the newborn with water as water will make the newborn cold.
- After delivery, place the infant skin to skin on the mother's chest to keep the infant warm.
 - This step is especially important if the baby was born prematurely or with a low birth weight.
 - Babies born before thirty-seven weeks of pregnancy have passed are considered premature. (You can figure the first week of the baby's life begins when you were on the white beads on your cycle bracelet the last menstrual cycle you had. You can then keep track of the weeks to figure out how many weeks of growing your baby has had. 37 weeks is considered full growth. Less than 37 weeks is considered premature.)
- If the infant has not started to feed on its own after an hour, put the child to the breast. Breastfeeding helps the mother to stop bleeding. This also helps the newborn.

Cleaning the infant

- Clean the child, particularly the eyes and skin
- Clean the child with a wet cloth on the second day
 - Make sure to use clean water that has been disinfected
 - Wipe the infant's head, neck and face around the eye
 - Clean the infant as quick as possible so that they don't lose body heat
 - Cover half of the infant's body when washing to keep them warm

What to do with the cord on the baby's belly?

- Keep the cord clean and dry
 - Do not put anything on it
 - Wash it if anything, including urine or feces get on it
 - Do not wrap it with cloth
- Make sure to wash the cord with clean water to prevent infections
- The cord should fall off in 5-10 days
- After the cord falls off, wash the infant in a basin every two days

Infant Care

- Breastfeed often: breast milk should be the newborn's first food and drink. Immediate breastfeeding helps the infant to learn how to feed
 - First thick milk protects the infant from sickness
- Do not give water, goat's milk, cow's milk, sugar water or porridge to an infant less than six months of age
 - Only give them breast milk, as they provide the nutrients they need
 - Other foods and liquids can cause sickness

- The infant sucking makes the mother's breasts produce white milk
- Breastfeed often to increase breast milk
- Diet
 - Feed your baby with only breast milk for the first **6 months** after birth
 - Feeding other foods can cause diarrhea.
 - Do not give your baby any water either- breast milk has all the liquids your baby needs.
 - After 6 months, you can start feeding your baby other foods 2 times per day. But continue to breastfeed until your child is at least 2 years old.
 - Start with soft foods like porridge with sorghum, millet or maize. Can also be made with pumpkin
 - Add oil after cooking (uncooked oil is better for the infant)
 - Porridge should not be thick otherwise it could block the child's throat. Thin porridge will slip out of the infant's mouth. The right consistency is when the soft foods stay in the infant's mouth
 - If the infant refuses porridge, can prepare porridge from other food, add breast milk to the porridge or offer one spoonful twice a day
 - Breastfeed before giving other foods
 - At 8 months, continue breastfeeding and start feeding your child 3 other foods per day.
 - at 12 months, continue breastfeeding and feed your child 4-5 other foods per day.
 - Continue to breastfeed for two or more years
 - Only feed your baby fresh foods, never anything leftover.
 - Give your baby soft, mashed foods at first. Anything you feed them should be able to fit on a spoon.
 - Feed your baby only one type of food at a time.
 - If your baby gets sick:
 - give your baby small, frequent meals and more fluids, including breast milk or other liquids.
 - Encourage the baby to eat a variety of (his or her) favourite soft foods.
 - After your baby has gotten over the sickness, feed them more food and more often than usual for at least 2 weeks.
- Breastfeed whenever the infant shows signs of being hungry
 - Moves tongue in and out
 - Sucks on fingers or hands
 - Turns head from side to side
- Alternate breasts when breastfeeding. So, offer the other breast when beginning the next feeding
- Breastfeed even when you or your infant is sick, as it provides the necessary nutrients to keep your infant healthy
- Mothers should drink more water to stay healthy
 - You can even drink clean water every time you breastfeed
- Foods mother to avoid:
 - Avoid tea and coffee with meals
- Make sure to always wash hands with clean water whenever making contact with the infant, especially before breastfeeding
 - Cleaning your hands can prevent the infant from getting sick

- Makes sure to also clean hands after cleaning the infant, especially after cleaning the infant's poop or pee.

Activity: Discussion Questions

- What have you heard about family planning before? Have you talked to anyone else about family planning before?
- What side effects do you have during your period? What do you do to try to feel better?
- How long do you breastfeed your children?
- What are the first foods you feed to your baby and at what age do you start feeding it to them?
- What is the most important thing to pay attention to during childbirth?
- What can you do to stay healthy during and after pregnancy?
- Is there anything you can't do when you're menstruating? Can you go to the wells? Attend community activities? Cook? (Answer: Yes, you can!)
- What are some of the reasons it's important to space out your pregnancies? What can you do to make sure you don't get pregnant when you don't want to?
- What are the materials you will need when giving birth?

Section 4: Farming

Lesson 1: Finding the right place to farm

Objectives:

1. Learn how to find the right area to plant your seeds. This is very important for successful farming!
2. Learn how to identify areas that are not good for planting your seeds.

Lesson:

- How to tell if the land is good for farming:
 - The soil is damp.
 - The soil stays in a ball when you squeeze it in your hand and doesn't crumble if you drop it.
 - The soil is dark.
 - The plants in the area look healthy and green.
 - There are earthworms in the soil. Earthworms help make sure that the plants can get water when it rains!
 - There are few stones in the soil.
- How to tell if the land is not good for farming:
 - There are not many plants around.
 - There are lots of rocks.
 - The area floods often.
 - The area has sitting water.

Activity:

- Go around your community and identify the areas that are being used for farming. With the knowledge that you've gained in this lesson, determine whether or not the areas being used are good areas for farming. If not, tell whomever is using the area why, and help them find a new area good for farming. Share your knowledge with as many people as you can!

Lesson 2: Seeds

Objectives:

1. Understand the importance of getting correct information about the seeds that you plan on planting and knowing what they will need in order to grow.

What are seeds?

- If teaching to students who do not know what seeds are, explain.
- Only use fresh seeds that were harvested the year before. These seeds are most likely to grow well.
- Exchange seeds with others in your area so that you can increase the different kinds of crops that you grow.
- When selecting seeds, ask what variety they are, when they were harvested, and what their yield might be. Did the seeds grow well for the person who is giving them to you?
- You should also know what kind of conditions your seeds need to grow - how much water do they need? Do they like a lot of sun or only a little sun? Ask people in your community who have planted these seeds before!

Activity: Where do your seeds come from?

- Discuss:
 - Does your family plant seeds at all? If so, what kinds of foods do they grow?
 - Where does your family get their seeds?
 - Are there any plants that you could be growing but you aren't?
- Look around in your house and your village to find as many seeds as you can.
- Bring them back to the learning site, and compare them to what others found.
- Discuss:
 - What seeds did you find?
 - What foods could they provide if they grew into a plant?
 - Could you grow them yourself? Where would be a good place to plant your seeds?

Lesson 3: Planting Seeds

Objectives:

1. To learn the most effective way to plant your seeds so that they grow well and are easy to take care of.

Lesson:

- 1) Find a good area for farming (see Lesson 1).
- 2) Loosen the soil about 15-20cm deep by turning with your hands or any sort of tool. Make sure to break up any clumps of soil. Loose soil will help the plants to grow!
- 3) Different types of seeds should be planted at different depths. But if you don't know this information, plant the seeds by digging a hole between 5-10cm deep, and covering the seeds with soil, pressing firmly on the soil. If you have a shovel, use that to dig more easily!
- 4) Plant the seeds in rows. Make sure to leave about 10cm between each seed. The plants need space to grow! Having the plants in a rows will allow you to control any weeds that start growing around the plants, as well as irrigate (water) them (see Lesson 4)
- 5) Once the seeds are planted, make sure to water the area enough so that the soil stays moist and never dries out. Water is very important for the plants to grow!
- 6) Make sure not to step on the soil after it's prepared! Squishing the soil will make it harder for the plants to get water and breath.

- 7) Give the plants time to grow! Some plants take longer than others, but if the soil is good and you take care of the plants, soon you will have a whole garden!

Lesson 4: Irrigation and Fertilization

Objectives:

1. To learn effective practices to save water, irrigate, and fertilize your crops.

Lesson:

- Evaporation occurs when water gets too hot and turns into steam, therefore reducing the amount of water that your plants receive. You can help prevent this from happening by avoiding watering the plants in the middle of the day and by watering the underside of leaves and laying down vegetation cover.
- Avoid over-watering plants, to strengthen the plant's resistance
- Try to use clean water from the wells instead of water from rivers or streams. Plants can get sick from drinking unclean water just like you can!
- Control weeds by looking for them and pulling them out of the ground.
- Plant and harvest at the right time, depending on the season. Is this when the seed you're planting is normally planted where you live? If you are unsure, ask others!
- One good strategy to make soil even better for farming is to use compost as fertilizer. Compost consists of leftover fruits and vegetables, which may not be good for eating anymore, but they can still be healthy for the soil! Animal feces can also be used to fertilize soil, but make sure never to use human feces! Mix compost and animal feces with soil to make it even more nutrient-rich and healthy for plants to grow in. Use shovels and rakes to help you do this, if they are available.

Lesson 5: Crop Storage

Objectives:

1. To learn how to store your crops so that they last longer.
2. To understand the concept of crop yield and why it is helpful for farming.

Lesson:

- It is very important to store crops correctly so they do not rot and go bad.
- Store crops in a cool, dry, dark place where no animals can get at it (like rats, birds, and insects).
- Try not to use all of your seeds in one planting season. Make sure to set aside seeds to be used for planting next year!
- Check stored food periodically to look for signs of rotting or of mold. Throw away rotten food right away.
- It is always a good idea to wash food before you store it. Be sure it is thoroughly dry before storing or you may have mold.
- Some foods should be processed before they are stored. This can be done by:
 - drying
 - hulling
 - grinding
 - milling
 - soaking

- Throughout each season, make sure you keep track of how many seeds you plant and how many plants grow. This is important because it will help you determine whether or not that area was good for farming, and whether or not you should use the same area next year. The number of plants that grow in relation to how many seeds were planted is called the yield. Knowing an area's yield will help you determine how many seeds to plant the following season in order to feed your family or community.

Lesson 6: Fertilizer

Objectives:

1. To learn about different kinds of fertilizers.
2. To learn about how fertilizer should be used in farming.

Lesson:

- Compost: type of all-natural fertilizer that is created by the natural breakdown of organic materials that can greatly increase amount of food grown in a certain amount of land
 - What should be composted:
 - Any part of a plant not used in cooking (peels, dead leaves, rotting fruits and vegetables)
 - Eggshells
 - Manure (animal)
 - Crushed bone
 - Wood ash
 - What should NOT be composted:
 - Cooked plants if there is a lot of water
 - Very thick tree branches
 - Plants with disease
 - Fats and animal wastes (oils, fish, meat, milk, eggs, butter)
 - Plastic, metal, other household waste
 - Citrus fruit peels
 - How to speed up the composting process:
 - Grind or shred large materials
 - Add some soil particularly when first starting
 - Put in a pile in garden/farming area
 - Mix the contents of the compost at least once a month. You can use a shovel or any sort of tool to move around the soil
 - Monitor level of water to make sure not too wet or dry (Should be as wet as a wrung out sponge)
 - How to tell if your compost is doing well:
 - No bad smells
 - Relatively warm/hot
 - Presence of worms
 - Can be used when most things cannot be recognized in the compost pile

- Manure (animal feces) can be stored out in the open for a long time and then applied to fields to increase amount of food grown
 - Benefits:
 - Easy to do
 - Extremely cheap
 - Risks:
 - Not as high quality as compost
 - Can cause disease if not done correctly
- How can I apply fertilizer?
 - Can use a bottle cap to apply a small quantity of fertilizer, either during planting or to dress the growth after it has grown from the ground
 - Can use a rake or hoe to evenly spread compost or manure in the soil

Lesson 7: Farming in relation to Nutrition

Objectives:

1. To learn what kinds of plants you can grow to maintain a healthy diet.

Tips on what types of plants to grow

- You should grow a variety of different plants because they will then give you a wider variety of nutrients.
- Try to grow at least one food from each food group: vegetables, fruits, grains, and protein.

Foods that can be grown:

- Carbohydrates (sorghum, millet, rice, cassava, cereals, corn soya, sesame)
- Fruits (mango, watermelon, guava)
- Vegetables (Kale, spinach, yams, sweet potatoes, cassava leaves, onions, tomatoes, okra, taro)

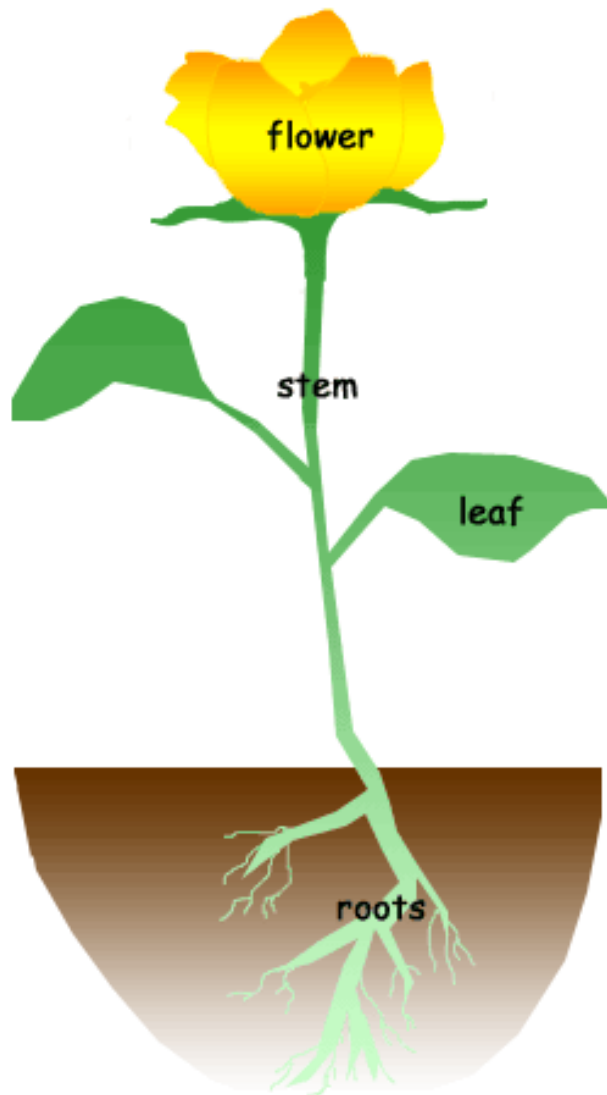
Lesson 8: Basic plant science

Objectives

1. To learn about how plants grow and understand the basic science of how this process works.

What are plants?

- Plants are living things, just like you and me.
- Plants use their leaves to capture energy from the sun, then they store that energy in the parts that we eat.
- In order to grow, plants need sunlight, water, nutrients from the soil, and air.
- Plants have four main parts:
 - The leaves capture sunlight so the plant has energy.
 - The stem keeps the plant upright and moves water through the plant.
 - The roots draw water from the soil and hold the plant in place.
 - The flower is where seeds are formed. This is how the plant reproduces.



Activity: Grow your own seeds

- Materials:
 - Seeds (if available)
 - Eggshells
 - Soil
 - Water
- Instructions:
 - Find soil that you think plants might like (see lesson 1).
 - Moisten the soil by mixing it with water.
 - Take eggshells and if possible, put a small hole in the bottom so that water can drain out.
 - Put a small handful of soil inside.
 - Drop around 5 seeds in each eggshell.
 - Fill the rest of the shell up with soil. Now you have a “planter.”
 - Set your planter in the sun where you think they might grow well. Watch them every day, adding water to keep the soil moist.
 - After 21 days, bring your planter back to your learning site. Discuss:
 - How many of your seeds started growing?
 - Why do you think some seeds grew and others didn't?
 - Did your seeds have all of the things that plants need to grow (sunlight, water, soil, and air)?
 - What could have made the plants grow better?
 - If you want, you can take the plants that are growing out of the eggshells and put them in the ground. See if they keep growing!



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