


## 教科書の中のマラリア情報 アジア・アフリカ9カ国の小・中学生用 教科書による健康教育推進のために

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## 背景



- マラリア
  - 1) 学童の主な欠席原因
  - 2) 学童による間違った自己治療
- マラリア健康教育
  - 1) 学校カリキュラムの中でも提供すべき
  - 2) ライフ・スキル教育を重視すべき

## 先行研究



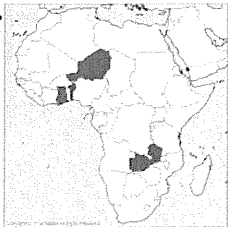
- 教科書の内容を研究した先行研究: 14研究
- 先進国の教科書を調べた研究が大半。
- 性教育、性感染症、栄養に関する記述内容を調べた研究が大半。

## 目的

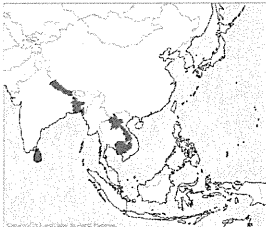
- マラリアの予防や治療のために学童が知っておくべきライフ・スキルが、マラリアが流行している国の学習教科書に記載されているかどうかを調べること。

## 対象国

Ghana, Niger, Benin, Zambia

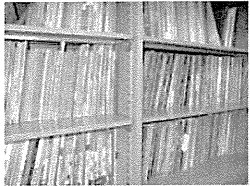


Cambodia, Laos, Bangladesh, Nepal, Sri Lanka

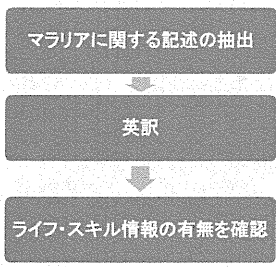


## 教科書の収集

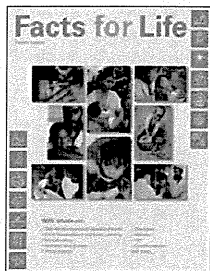
- 公立の小・中学校で使用されている教科書
- 1～9学年迄の教科書
- 全教科の教科書
- 合計474冊



### 調査方法



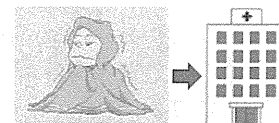
ライフ・スキル情報の出典



### マラリア対策のためのライフ・スキル



殺虫剤処理蚊帳の  
中で寝ること



発熱した子供は、なるべく早く  
適切な診断・治療を受けること



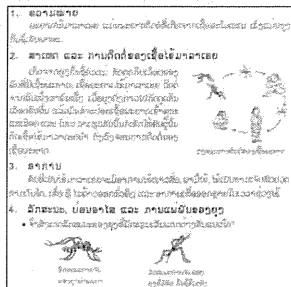
妊婦の感染予防



マラリア罹患中・後の  
脱水・栄養失調の予防

### 結果: マラリアに関する記述

記述内容	n (n=35)	%
伝達様式	27	77
予防	21	60
疫学情報	20	57
原因(寄生虫)	19	54
症状	13	37
治療	8	23
その他	8	23



マラリアに関する記述の例  
(ラオス 4年生 World around us)

### 結果: マラリア教育の学年

	1	2	3	4	5	6	7	8	9
Cambodia					✓				✓
Laos				✓				✓	
Bangladesh				✓				✓	
Nepal						✓			
Sri Lanka							✓	✓	
Zambia		✓	✓		✓	✓	✓	✓	
Niger		✓			✓		✓		✓
Benin				✓			✓		✓
Ghana				✓	✓			✓	✓

### 結果: ライフ・スキル情報の有無

	殺虫剤蚊帳	早期診断治療	妊婦対策	脱水・栄養
Cambodia	✓	✓	✓	✓
Laos	✓			
Bangladesh				
Nepal				
Sri Lanka				
Zambia	✓			
Niger				
Benin				
Ghana	✓			

### 結論

- マラリアに関する記述はあっても、ライフ・スキル情報はほとんど記述されていなかった。
- ライフ・スキル情報を教科書に取り込むように改善する必要がある。

## 謝辞



- 本研究にご協力くださった方々に心より感謝申し上げます。
- 研究費：厚生労働科学研究費補助金  
地球規模保健課題推進研究事業  
H21-地球規模-若手011



## Content analysis of primary and secondary school textbooks regarding soil-transmitted helminthiasis: a multi-country study

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## Background



### Soil-transmitted helminthiasis (STH)

- Prevalent among school age children
- Cause of malnutrition/poor academic performance

### Health education for STH

- Should be taught within school curricula
- Skill-based education (how to prevent infection)

## Literature review



### Content analysis on school textbooks

- 14 studies

### Study setting

- Developed countries

### Study topics

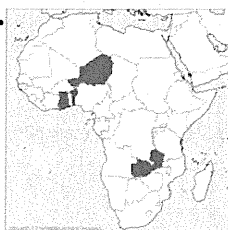
- Sexually-transmitted diseases
- Reproductive health
- Nutrition

## Objective

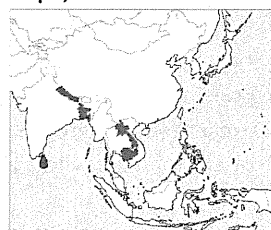
- To examine whether school textbooks used in tropical countries contain knowledge and skills that help children to cope with STH

## Target countries

Ghana, Niger, Benin, Zambia

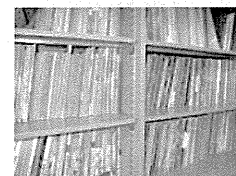


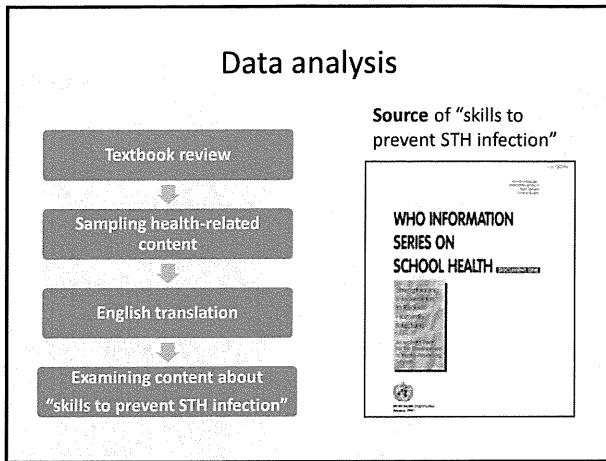
Cambodia, Laos, Bangladesh, Nepal, Sri Lanka



## Textbook collection

- Textbooks used in primary and lower secondary public schools
- Grade 1 to 9
- All subjects
- A total of 474 books





### Grades at which STH-related content is presented

	1	2	3	4	5	6	7	8	9
Laos		✓	✓						
Cambodia			✓	✓					✓
Bangladesh					✓				
Nepal							✓		✓
Sri Lanka									
Zambia									
Niger					✓				✓
Benin			✓	✓					✓
Ghana									

### Content about STH

Classification of STH content

Content	n (n=14)	%
Biology	3	21.4
Cause/transmission	10	71.4
Symptom	6	42.9
Treatment	4	28.6
Prevention	10	71.4
Epidemiology	6	42.9

Example: Laos grade 3

### Presence of content related to "skills to prevent STH infection" in textbooks

	Lao	Cam	Ban	Nep	Sri	Zam	Nig	Ben	Gha
Wash hand before eating	○	○	○	△	△	△	△	○	△
Wash hands after defecating	○	△	○	○	△	△	△	○	△
Wash hands after playing	x	x	x	△	△	x	x	x	x
Keep finger nails clean	△	x	○	△	△	△	△	△	△
Do not suck fingers	x	x	x	x	x	x	x	x	x
Wear shoes or sandals	○	x	○	x	x	△	○	○	x
Wear glove when working	x	x	x	x	x	x	x	x	x
Wash vegetables and fruits	○	△	○	△	△	△	△	○	△
Use toilet	○	△	○	○	△	△	○	○	△
Do not use excreta as fertilizer	○	x	x	x	x	x	○	○	x

○: presented as STH coping skill, △: not linked with STH but presented, x: not presented

### Conclusion

- The textbooks of Sri Lanka, Zambia and Ghana lacked the content related to STH.
- Many skills to prevent STH infection were presented in textbooks. But, these skills were often unlinked with STH prevention.

## Acknowledgement



### **I would like to acknowledge**

- Prof. Tsutomu Takeuchi
- Dr. Tetsuya Mizoue
- Prof. Masamine Jimba
- Dr. Jun Kobayashi
- surveyors and collaborators in the target countries

### **Research fund**

- 厚生労働科学研究費補助金 H21-地球規模-若手011

## Cambodia

Subject	Grade	Description
Sciences-Sociology	1	<p>I don't like (shown in pictures): smoking, swimming in the river, violence perpetration, physical punishment or abuse, playing with something harmful to myself and others, any food which has flies buzzing around.</p> <p>I should (shown in pictures): take bath, clean up my body, brush my teeth regularly and use a face mask as needed.</p> <ul style="list-style-type: none"> <li>- I (shown in pictures) always wash up my hands before eating</li> <li>- How to wash my hands: use water + soap + water + towel</li> </ul> <p>Why I get sick? Because (shown in pictures):</p> <ul style="list-style-type: none"> <li>- I defecate outside the toilet</li> <li>- Flies transmit diseases from my stool to my food.</li> <li>- After eating the food, I get sick.</li> </ul> <p>What I should do:</p> <ul style="list-style-type: none"> <li>- Always defecate in a toilet</li> <li>- Cover my food from flies before eating</li> </ul> <p>(shown in pictures):</p> <ul style="list-style-type: none"> <li>- Clean the toilet before defecating.</li> <li>- Defecating in a proper way</li> <li>- Clean the toilet again after defecating.</li> <li>- Wash my hands with soap.</li> </ul> <p>we will expose to different diseases.          "Good hygiene leads to healthy life"</p> <p>Exercises: Please put ordinal number to show how to use toilet properly (shown in pictures).</p> <p>Causes of accidents or dangers at home (shown in pictures):</p> <ul style="list-style-type: none"> <li>- Playing with electric devices, fire, hot water</li> <li>- Falling down from a tree</li> <li>- Self-using of or playing with drugs</li> <li>- Running at a slippery place</li> <li>- Stepping on carelessly kept cooking utensils</li> <li>- Mosquito coming from unused tyre, cans, or jar.</li> </ul> <p>To prevent accidents or dangers at home: I have to keep my home tidy and neat.</p> <p><b>a. Walking on the roads:</b></p> <ul style="list-style-type: none"> <li>- Always keep to the right</li> </ul> <p><b>b. Crossing the roads:</b></p> <ul style="list-style-type: none"> <li>- Cross the road at the zebra crossing signs</li> <li>- Look to the left and right before crossing the roads</li> <li>- Look at the traffic lights before crossing the roads</li> </ul> <p><b>c. Dangerous acts leading to accidents on main roads:</b></p> <ul style="list-style-type: none"> <li>- Playing on or near the roads</li> <li>- Carelessness while crossing the roads</li> <li>- Crossing the roads while the traffic light is red</li> </ul> <p><b>d. Dangerous acts leading to accidents on the smaller roads (shown in pictures):</b></p> <ul style="list-style-type: none"> <li>- Climbing up the trees</li> <li>- Playing on the roads</li> <li>- Playing in stream or lake along the roads</li> </ul> <p><b>Note:</b> Always be careful when we are on either the main or smaller roads</p>
Sciences-sociology	2	<p>Foods that we should eat:</p> <ul style="list-style-type: none"> <li>- properly washed</li> <li>- properly cooked</li> <li>- properly kept</li> </ul> <p>We should eat at a hygienic place</p> <p>Foods that we should not eat:</p> <ul style="list-style-type: none"> <li>- not properly washed</li> <li>- not properly cooked/undercooked</li> <li>- spoiled</li> <li>- buzzed around by flies</li> </ul> <p>We should not eat at dirty place</p> <p><b>Note:</b> Eating unhygienic food causes diseases</p>
		<p><b>Boy:</b> Help me! Why I have/feel (1) watery stool, (2) fever, (3) exhausted, (4) stomachache?</p> <p><b>Nurse:</b> These symptoms signify that you are having diarrhea.</p> <p><b>Treatment</b></p> <p>1. For mild diarrhea:</p> <ul style="list-style-type: none"> <li>- Drink water, ORS, or coconut juice , and boiled rice frequently</li> </ul> <p>2. In case of severe diarrhea with large amount of watery stool:</p> <ul style="list-style-type: none"> <li>- Drink water, ORS, or coconut juice and eat soft food such as boiled rice frequently</li> <li>- Take the patient to a hospital or health center.</li> </ul> <p><b>Note:</b></p>

	<p>- Eating hygienic foods makes us healthy  - Eating unhygienic foods causes diarrhea.  - Diarrhea can be treated by giving both drink and food after each diarrhea. - In case of severe diarrhea, take the patient to a hospital or health center.</p> <p><b>Exercises</b></p> <p>- Choose a correct word to fill each gap in the following paragraph: hospital, severe, lost of, coconut juice, diarrhea, energy, boiled rice, ORS  “When having diarrhea, we should let the patient drink .....or boiled water or tea, or..... and eat... or soup because when we have..... we..... body fluid and..... So if we have.....diarrhea several times, we should give both drink and food and take the patient to .....</p> <p><b>How to cross the roads?</b></p> <p>1. How to cross the roads with traffic lights and signs:  Q: How do we cross this kind of roads?  A: We have to look at the traffic lights and cross the roads through the crossing signs on the road.  - When the light is read with a picture of a person in standby position, we cannot cross  - When the light is green with a picture of a walking person, we can cross</p> <p>2. How to cross the roads without traffic lights or crossing signs?  Q: How do we cross this kind of road?  A: We have to:  - Wait until we can cross  - Cross the road by looking carefully to the left and right  - Cross the road by looking carefully to the right</p> <p>3. Safety on the roads  When travelling on the roads we should:  - Keep to the right  - Respect the traffic lights and signs  - wear helmet  We should not:  - go through the prohibited directions.  - disrespect traffic law.  - over take one another.</p> <p>4. Dangers from playing on the public roads:  Playing on the roads may lead to serious accidents (shown in pictures)</p> <p>5. Traffic lights  Q: What is the meaning of the traffic light when it is red, yellow, or green?  A:  - Red: Everybody must stop  - Yellow: Everybody must be careful.  - Green: It is safe to go.  To prevent road accidents, we should know some traffic signs such as (shown in pictures): traffic lights for vehicles, roads where school children pass, traffic lights for pedestrians, road bending to the left, road bending to the right, and no entry sign.</p> <p><b>Note:</b> Respecting traffic law help protect us from traffic accidents when travelling.</p> <p><b>Exercises:</b></p> <p>1. Please make the below traffic signs by drawing, coloring, cutting, sticking:  - Traffic lights for all modes of vehicles  - Traffic lights for pedestrians crossing.  - No entry sign  - Road bending to the right sign</p> <p>2. Please tell the meaning of the following traffic lights and signs (shown in picture 1-4).</p>
	<p>1. Games for children: All children like playing. But their hobbies are different. Some like playing... (shown in pictures).  2. Carelessness while playing in water may lead to fatal accident.  3. Safety while playing in water  To prevent any accidents from happening while playing water, we should...and should not...(shown in pictures)  4. Note: Carelessness while playing in water may lead to fatal accident.  Exercises: Please choose the right words in the box to fill in each gap of the following paragraph correctly: accident, adults, tire, away, bamboo, swimming jacket, land, cannot.  “To prevent any...when playing in pond, lake, river, or sea, we should wear.....or hold a ....., and swim near....., and should not play by pushing somebody who.....swim and ..... from others alone.</p>
Sciences-sociology	<p>3</p> <p>We must be healthy. To be healthy, we have to live with hygiene.</p> <p><b>Personal hygiene</b></p> <p>a. What are the functions of our eyes, nose, mouth, ears, and skin?  b. How do we take care of and keep different parts of our body clean?  - We take care of our eyes by: reading under appropriate light, cleaning them with clean handkerchief, not touching them with dirty hands or objects, not washing with dirty water.  - We take care of our nose by: cleaning it with clean, soft handkerchief, covering it with a handkerchief when passing through a dirty or dusty place, and not putting hard objects in it.  - We take care of our ears by: always keeping them clean all the time, preventing them from having water or insects go in, not putting hard objects or fingers in them, not listening to too loud sound, and covering them or getting away from any place with loud sound.</p>



	<p>- We take care of and clean up our mouth and teeth by: brushing them up after getting up and eating, not eating too hot, too cold, or too hard foods.</p> <p>- We clean up and take care of our body by: using clean water and soap to clean the body, cleaning our body with clean towel, always washing our hands before and after eating and after using toilet, and taking bath at least two times per day.</p> <p>Notes:</p> <p>- "Regular and good hygiene practices keep us healthy and strong."</p> <p>- "Keeping ourselves clean makes us healthy. Healthy body leads to bright life and happy family."</p> <p><b>Exercise:</b></p> <p>Please observe the following pictures and write about how to clean out teeth (shown in pictures).</p> <p>Children are prone to infectious diseases. Diseases can stunt the development of children.</p> <p>a. What are the common diseases in children?</p> <p>The common diseases in children include: intestinal worms, whooping cough, measles, and common cold. These diseases are infectious with different ways of transmission, prevention, and treatment.</p> <p><b>1. Common cold:</b></p> <p>- Causes: getting too much wet in the rain, drastic change in weather, getting infected from a patient with common flu.</p> <p>- Symptoms: running nose, sneezing, headache, fever...</p> <p>- Prevention: avoiding drinking iced water, keeping a distance from or not sharing utilities with a person with common flu, and using face mask to prevent all kinds of flu.</p> <p>- Treatment: take sufficient rest, drinking warm water, keeping yourself away from cold place, and seeing a doctor.</p> <p><b>2. Whooping cough:</b></p> <p>- Causes: get transmitted from a patient with whooping cough.</p> <p>- Symptoms: fever, severe, continuous coughing.</p> <p>- Prevention: avoiding talking face to face to a patient.</p> <p>- Treatment: Seeing a doctor for treatment.</p> <p><b>3. Intestinal worms:</b></p> <p>- Causes: eating unhygienic foods or not well cooked foods, touching food without washing hands.</p> <p>- Symptoms: enlarged stomach, eating a lot but skinny and pale.</p> <p>- Prevention: eating hygienic food, washing hands before eating.</p> <p>- Treatment: seeing a doctor urgently and following doctor's advises strictly.</p> <p><b>4. Measles:</b></p> <p>- Causes: getting infected from a measles patient through saliva, using the same things together with a measles patient.</p> <p>- Symptoms: fever with cough, running nose, red face with tear, white spots on the tongue, and rashes on the face and throughout the body after 3-4 days.</p> <p>- Prevention: avoiding talking face to face to and not sharing utilities with a measles patient.</p> <p>- Treatment: seeing a doctor and following doctor's advises, take sufficient rest in a place with good ventilation.</p> <p>Note: When we get sick, we should go to a hospital immediately.</p> <p>What health professionals do at the hospitals or health centers?</p> <p>When getting sick, we should go to a hospital, referral hospital, or a health center in the community to let doctors or other health workers provide examination, analysis, advises, treatment and medication.</p> <p><b>Notes:</b></p> <p>- There are several diseases that happen to children and affect their development.</p> <p>- When getting sick, children should go to see doctors immediately and follow their advice properly.</p> <p><b>Exercises:</b></p> <p>1. Please circle a correct answer.</p> <p>- Among the following diseases, what is the most common one that affect children?</p> <p>a. Diabetes,</p> <p>b. Hypertension,</p> <p>c. Intestinal worms</p> <p>- Among the following diseases, which one can cause running nose and coughing or sneezing?</p> <p>a. Measles</p> <p>b. Common cold</p> <p>c. Whooping cough</p> <p>2. Please draw a picture to show the location of a community health center located near your home.</p> <p>3. Please choose the words in the box to fill in each gap of the following paragraph: hospital, medicines, take, instruction, check</p> <p>"When we get sick, we should go to...to let doctors...and give...and give...for...."</p>
	<p>A. Attitudes of passengers for road safety by pictures and poem.</p> <p>B. Importance of wearing helmet:</p> <p>What are the differences of advantages from wearing a hat and a helmet?</p> <p>- We wear a hat to protect ourselves from heat and sun light.</p> <p>- We wear a helmet to protect our head when we have road accidents, it can also protect us from heat and dust.</p> <p>C. Importance of traffic lines:</p> <p>What are the traffic lines on the road? What are they used for?</p>

On the roads, there are four types of traffic lines (as shown in pictures). These lines tell us about:

1. Crossing signs or dividing sign to separate a road into two parts for two opposite traffic directions.
2. Crossing signs or dividing sign to separate a road into two parts for two parallel traffic directions (for motorbikes, bicycles, or cars).
3. Crosswalk is for pedestrians passing a road.
4. Unsmooth zebra sign across the roads as an alert for drivers to slow down as the ahead traffic is crowded

Note:

- For road safety, we have to follow and respect traffic law. Those who ride bicycles or motorbikes should always wear helmets. Wearing helmet can protect our head from serious hit when we have road accidents.

#### Exercise

Please observe the following pictures and fill in each gap of the following paragraph properly:

- "For road safety, those who...have to...through...on the roads. When...by...or motorbikes, we have to wear...to protect...from serious hit when we have road accidents."

#### A. Dangers from landmines:

What are possible dangers caused by landmines?

Landmines can cause disabilities on limbs or even death.

#### B. Signs for landmines:

In the areas with landmines, when we travel, if we see the following signs (pictures), we should get away from them.

#### C. Importance of danger signs for landmines:

What is the importance of danger signs for landmines?

- Alert people to be careful of dangers from landmines.
- Let people working on demining know about the number of remaining areas with landmines.
- Let people know where the remaining landmines are. Therefore, landmine signs let us know places with landmines and prevent us from disabilities and death.

#### D. Good attitudes of people living in areas with landmines:

- Landmines can cause a lot of dangers, what can we contribute to help?
- Do not take away or change to location of landmine signs.
- Do not burn or destroy landmine signs.
- Tell others about places with landmines.

Notes:

- Helping to keep landmine signs is a good attitude because it can help prevent people or animals from misery.
- Landmines are very dangerous. When travelling, we should get away from the landmine signs. We should tell others about places with landmines.
- Helping keep landmine signs in place can help prevent people from disabilities and death.

Exercise:

Please choose an appropriate word from the box to fill in each gap of the following paragraph: dead sign, animals, authorities, landmines, location, humans, signs, inform

"Landmines can cause...and .....disable or death. When travelling, we have to observe....landmines with cross signs and ..... We have to.....or report urgently about.....with landmines to....."

#### A. Home utilities

Please tell about utilities in your home:

- There are many utilities in our home.
- Some of our home utilities in our home are useful, but some others can cause dangers such as cut, poisoned, burn, and slipping.

#### B. Danger prevention

How do we keep our utilities to avoid dangers?

To avoid dangers, we have to keep all utilities tidy by:

- Keeping poisoning objects out of reach of children.
- Keeping matches or other inflammable objects out of reach of children.
- Covering water containers up properly.
- Keeping knives or other sharp objects out of reach of children.
- Putting out fire properly after cooking.
- Checking the names of medicine carefully before use.

Notes:

- Carelessness causes disasters and dangers. Keeping home utilities tidy leads to happiness.
- Carefulness prevents us from dangers. "Prevention is better than cure."

#### Exercises

1. Please tell us about dangers caused by carelessness in kitchen by writing in the blanks in the following table.

2. Circle the right answers

1. Among the following liquids, what is the insecticide?

- a. Rainwater
- b. Fish sauce
- c. Vinegar
- d. DDT

- Among the following liquids, which one can easily cause fire?

- a. Cooking oil

		<p>b. Detergent</p> <p>c. Liquid used for clean wounds</p> <p>d. Gasoline</p> <p>A picture about how to prevent ourselves from bird flu. (Conversation between two students)</p> <p>Yutha: Thyda, can you tell me what this picture means?</p> <p>Thyda: This picture tells us not to touch dead birds that can transmit bird flu to us.</p> <p>Yutha: How can you understand it?</p> <p>Thyda: First, we should read the title, "Bird flu." Then we look at the picture in which we can see a boy who is about to touch the dead poultry, and there is a cross sign on it. This means that we must not touch dead poultries because they can transmit bird flu to humans.</p> <p><b>Exercise:</b> Please observe the following picture and tell what it means. (A picture about how to prevent bird flu)</p>
Sociology	4	<p><b>Text:</b> Health and hygiene are very important for our living. We have to keep our village clean as a role model for others. Every day, we have to clean our house, toilet, bathroom and any places that we keep animals, and get rubbish and manure to proper places as well as keep our village free from flies and mosquitoes by eliminating all places they can reside. For people living in the cities, we should clean up our house and dispose garbage in the right places. To improve the beauty of our village, each family should grow flowers, vegetables, and fruit trees around the homes.</p>
	4	<p>Humans need water every day. Drinking unclean water leads us to diseases. There may be germs or parasites in water from river, lake, streams, or pond that we cannot see by our eyes. Those germs and parasites cause diarrhea, typhoid fever, cholera, and intestinal worms.</p> <p>To prevent these diseases, you should drink water boiled for 15 minutes, because some germs and parasites can survive in some low levels of heat.</p> <p><u>When you go school or away from home, you'd better have a bottle to keep boiled water for drinking.</u></p>
Practical sciences	4	<p>Q. What are common diseases in children?</p> <p>A. Common diseases in children include common cold, whooping cough, intestinal worms, measles, polio, diarrhea, diphtheria, and other infections.</p> <p>Q. Among these diseases, which ones can cause disability among children?</p> <p>A. Polio. This disease starts with high fever, muscle pain, fatigue, headache, stiffness on the neck and vertebra. It can be transmitted through coughing, sneezing, or patient stool.</p> <p>Q. What are the effects of polio on muscles and bones?</p> <p>A.</p> <ul style="list-style-type: none"> <li>- Small children who have high fever and severe diarrhea may have weak muscles and cannot move.</li> <li>- This weakness spread through muscles in different parts of the body, but frequently occurs on the legs.</li> <li>- Some muscles only get weaker but some become unusable.</li> <li>- When some muscles contract, the patients cannot stand up or extend their hands.</li> <li>- Some muscles and bones cannot grow as usual.</li> <li>- In contrast, the non-affected hand or leg becomes very strong to support the weaker parts.</li> <li>- Intellectuality of the patient remains normal.</li> <li>- Polio leads to lifelong disability.</li> </ul> <p>Q. What are the prevention measures for polio?</p> <p>A.</p> <ul style="list-style-type: none"> <li>- Give medicines to children.</li> <li>- Keep children in hygiene.</li> <li>- All children must take vaccine against polio from birth to age of five years.</li> </ul>
Khmer literature	4	<p><b>Ratha's story:</b></p> <p>Do you sleep in a bed net? What happens if you don't sleep in a bed net? You will understand how to take care your health through the following text.</p> <p>One day, Ratha got a severe fever. Her mom requested for permission from her teacher to take her for treatment. Her dad took her to a hospital located in the district town. A doctor examined her carefully. He told her dad that she had dengue fever because she was bitten by dengue mosquitoes, and she should be hospitalized for a while. Her dad asked the doctor if the disease was serious. The doctor responded, "it's not serious because you took her to the hospital on time." Ratha was so happy after hearing that. She was smiling, and said, "thank you so much uncle. If I get better soon, I can return to school." The doctor responded gently, "you are a good student. No worry. You will be able to return to school in a week. But now you have to take medicines regularly as advised. When you return home, you should prevent yourself from mosquito bite, can you?" Ratha replied quickly, "yes, I promise." After returning home, Ratha was very careful. During day time, she doesn't let mosquitoes bite her, and she always sleeps in a bed net at night.</p>
Practical sciences	5	<p>Tropical regions rich in forest, mountains, and sea are particularly affected by malaria. Malaria affects people in all ages.</p> <p>Q. What are the symptoms of malaria?</p> <p>A. Regular shaking with high fever for several hours. Some patients have febrile, especially those living in malaria zones.</p> <ul style="list-style-type: none"> <li>- Before fever, patients become unrest and start shaking with coldness on the extremities and severe headache for 15-30 minutes.</li> <li>- Then the patient has high fever of up to 41c leading to agitation for hours.</li> <li>- At the end, the patient gets sweaty. Decrease in temperature is sign of getting free from fever. At this stage, the patient feels better but remains weak.</li> </ul> <p>The patient has such a fever every day or every 2 or 3 days. It becomes chronic and the patient lacks of red blood cells and becomes pale and skinny.</p> <p>Q. What is the name of agent which causes malaria?</p> <p>A. The agent is called "hematozoaire" (plasmodium). Malaria patients are the source of the agent. Female mosquitoes of anopheles are the most important transmitter. When they bite a patient and then by another person, that person will develop malaria too.</p> <p>Female mosquitoes of anopheles are active at night in some areas such as:</p> <ul style="list-style-type: none"> <li>- Mountains and forests from May to October (rainy season).</li> <li>- Flat areas and seaside from January to April (dry season).</li> </ul> <p>Q. How to prevent ourselves from malaria?</p>

	5	<p>A.</p> <ul style="list-style-type: none"> <li>- Destroy the source of the agent.</li> <li>- Prevent ourselves from mosquito bite by always sleeping in bed net.</li> <li>- Take preventive medicines if we live in areas with large amount of mosquitoes.</li> </ul> <p>Q. How to treat a malaria patient?</p> <p>A. Malaria can be treated in two ways:</p> <p>a. Traditional medicines: some kinds of herbs boiled with water...Eating rice noodle and lemon is prohibited.</p> <p>b. Modern treatment (scientific):</p> <ul style="list-style-type: none"> <li>- Take Quinine, Chloroquine, Tetracycline...and follow medical prescription</li> <li>- Injection with Quinine, intravenous fluid, and vitamins... and follow medical prescription strictly (in severe cases).</li> </ul> <p>We have learnt that there are many diseases commonly occur in children. Recently, there some diseases which have been spread in youths, especially among those aged 15 to 35 years. What are the diseases? Are there any solution and treatment?</p> <p><b>1. STIs</b></p> <ul style="list-style-type: none"> <li>- What are the symptoms of STIs? Ulcer or inflammation on sexual organs.</li> <li>- What are the modes of transmission? What are the agents of these diseases? STIs are transmitted through sexual intercourse. But they can also be transmitted through seating materials or sharing toilet with patients.</li> <li>- How many types of STIs?</li> </ul> <p style="padding-left: 40px;">Ulcers on sexual organs caused by virus, gonorrhea caused by bacteria, syphilis caused by bacteria... etc.</p> <ul style="list-style-type: none"> <li>- What should we do to prevent these diseases? Having only one sex partner and using condom if they have multiple sex partners. Patients should use separate utensils, clothes, foods, and toilet from others and go to the hospital immediately because these diseases can be cured.</li> </ul> <p><b>2. HIV/AIDS</b></p> <p>What is AIDS? What is the virus that causes AIDS?</p> <p>AIDS is a syndrome caused by a virus. It destroys the immune systems. That virus is called HIV. AIDS is not hereditary but cannot be cured.</p> <p>a. Notifications of people living HIV/AIDS: We cannot say from the outer appearance. A person who is good looking or looks healthy can also be HIV-infected. Only blood test can confirm HIV infection. So if you misunderstand or ignore this fact, you will get HIV which will lead to serious consequences for you.</p> <p>b. What does "HIV-infected person" mean? How does HIV progress? An HIV-infected person is the one who is infected by HIV but remains asymptomatic. After getting infected, there are 3 different steps in its evolution:</p> <ol style="list-style-type: none"> <li>1. 0-3 months</li> </ol> <ul style="list-style-type: none"> <li>- Symptom: No</li> <li>- Blood test: Negative</li> <li>- Transmission: Very active</li> </ul> <ol style="list-style-type: none"> <li>2. 3 months-3 or 4 years</li> </ol> <ul style="list-style-type: none"> <li>- Symptom: No</li> <li>- Blood test: Positive</li> <li>- Transmission: Active</li> </ul> <ol style="list-style-type: none"> <li>3. 3 or 4 years or more</li> </ol> <ul style="list-style-type: none"> <li>- Symptom: Yes</li> <li>- Blood test: Positive</li> <li>- Transmission: Active</li> </ul>
Practical sciences	6	<p>The world as well as Cambodia is fighting against AIDS. What are the characteristics of AIDS?</p> <p><b>1. Symptoms:</b> From 0-3 months, an HIV-infected person has no symptom with blood test negative. But some time later, we can observe some suspicious symptoms such as fatigue, frequent infections in the lungs, fever and sweaty at night without reason, lymphadenopathies, oral thrush, skin rash, chronic cough more than one month, ecchymosis or pastule on the skin, mental disorders, alopecia... etc. Then other symptoms present such as loss of weight, chronic diarrhea... etc. These conditions become more and more serious causing poor defending systems against diseases. Finally, the patient will die.</p> <p><b>2. Transmission:</b></p> <ul style="list-style-type: none"> <li>- Sexual intercourse (with an HIV-infected person without using condom): Having multiple sexual partners with HIV, having sex with commercial sex workers without condom. In Cambodia, 90% of HIV transmission is through sexual intercourse.</li> <li>- From mother to child (HIV-infected mother): during pregnancy, delivery, and breast feeding.</li> <li>- Blood: Blood transfusion without examination, needle sharing, touching blood of HIV-infected person... etc.</li> </ul> <p><b>3. Prevention and treatment:</b></p> <ul style="list-style-type: none"> <li>- Prevention: Not involving with sex at young age, having only one sex partner, treating STIs on time, avoiding blood transfusion without examination, avoiding sharing needle for tattooing or drug use without sterilizing, going to dental clinics with legal permission, using condom all the times when having sex.</li> <li>- Treatment: So far, AIDS cannot be cured, but we should treat opportunistic diseases early. We should therefore care for AIDS patients by: <ul style="list-style-type: none"> <li>- Keeping their body clean and providing sufficient food.</li> <li>- Not leaving them alone.</li> <li>- Being patient</li> <li>- Providing appropriate accommodation.</li> </ul> </li> </ul> <p>In any condition, an AIDS patient should be taken care of in the same way with other patients.</p> <p>We should help AIDS patients by:</p> <ul style="list-style-type: none"> <li>- Visiting them frequently.</li> <li>- Helping keep confidential.</li> <li>- Providing advises regarding how to live, work, go out, play sports... etc.</li> <li>- Avoiding discrimination and providing both material and psychological support.</li> </ul>
Sociology	6	<p>At the beginning of HIV infection, a person has no symptom and looks just like other people. The virus can be identified only by blood test. Although no symptom, such a person can transmit the virus to others. Three months to 10 years later, HIV-infected person gets sick. The symptoms are different from one another. The symptoms observed so far include diarrhea, fever, enlarged lymph nodes, oral thrush, tuberculosis, pneumonia, skin cancer... etc. A patient will die in 1 to 2 years after the symptoms appear because there is no treatment to cure AIDS. HIV can be detected in some groups of people such as commercial sex workers and their partners.</p>

		<p>HIV/AIDS cannot be transmitted through casual communication such as holding hands, coughing, sneezing, having meals together, sharing clothes or toilet, working together and insect or mosquito bite.</p> <p>To prevent yourself from HIV/AIDS, you should: have only one sex partner, go for blood test before getting married, use only sterilized needles, and blood transfusion without HIV. A woman with HIV should not have a baby.</p>
Sciences	7	<p>The above picture shows a shop selling drinks and cigarettes. Most of these drinks are alcohol including red wine, beers, grape wine... Alcoholic drinks contain toxic chemical substances that can be harmful to health.</p> <p><b>1. Drugs:</b></p> <p>Drugs are chemical substances different from food. When they are taken, they have effects on our body. For example, if we take sleeping pills, we will feel sleepy. But if we drink tea or coffee, we will feel not sleepy. Tea and coffee contain caffeine which has effects on heart and brain functions. Tobacco also contains a substance that affects nervous systems too.</p> <p><i>a. Types of drugs:</i> In general, there are two types of drugs, legal drugs and illegal drugs (illicit drugs). For example, medicines, wine, and tobacco are legal drugs. Marijuana and heroin are illegal drugs.</p> <p><i>b. Addictive substances:</i> Wine, tobacco, marijuana, and heroin are addictive substances. A person who uses these substances will become addicted. Drug addicts cannot work properly when they do not use them.</p> <p><i>c. Transformed products:</i> Tobacco has been transformed into several things such as cigarettes or tobacco to be used with a pipe. Moreover, there is also tobacco produced for chewing. However, in any forms, tobacco is harmful for health. Similar to tobacco, alcohol has been transformed into white wine, beer, red wine...etc.</p> <p><b>2. Tobacco and cigarettes:</b> Recently, it is estimated that tobacco kills more than three million people every year. Based on the new trend, in 2020s or 2030s, the death toll will increase up to 10 million per year, 70% of whom are living in developing countries. For the advantage of our health, we should learn about chemical substances contained in tobacco or cigarette and their harmful effects on our body.</p> <p><i>A. Chemical substances</i> in tobacco or cigarette: Carbone monoxide, nicotine, arsenic, hydrogen cyanic, DDT, ammoniac, butane, acetone, cadmium, methanol, naphthalene...etc.</p> <p>When the tobacco is burnt, its smoke contains more than 4,000 types of chemical substances, most are toxic and cause cell inflammation. Among these, there are at least 69 substances that can cause cancer. Chemical substances contained in tobacco or cigarette can also cause other diseases.</p> <p><i>B. Effects of chemical substances</i> in tobacco or cigarette:</p> <p>Following are main chemical substances contained in tobacco or cigarette:</p> <ul style="list-style-type: none"> <li>- Nicotine: It is the most toxic substance. If a drop of nicotine is injected into a mouse, the mouse will die immediately. Seven drops of nicotine can kill a cow. When we smoke or chew tobacco, nicotine absorbs quickly into the blood stream of our mouth, nose, or lungs. Then it distributes to all organs in the body. Because of this substance, smokers become addicted and cannot stop smoking.</li> <li>- Ammoniac: Taste of cigarette depends mostly on ammoniac. Ammoniac is a sticky black substance appearing when a cigarette is burnt. Ammoniac contains carcinogens that can cause cancer on the organs exposed regularly to cigarette smoke such as lips, mouth, tongue, throat, trachea, and lungs. In addition, it can cause bronchitis and other respiratory diseases. It makes nails, teeth, and lung tissues yellowish.</li> <li>- Carbone monoxide: It is colorless, odorless substance in tobacco, like gas from a running car machine. It can link stronger to red blood cells than oxygen molecules causing poor oxygen supplies to red blood cells. Carbone monoxide also makes oxygen absorption into muscles and organs difficult. So when someone smokes, his heart works harder with less outcomes.</li> <li>- Other substances: All other above-mentioned substances can cause inflammation in the whole respiratory tracts.</li> </ul> <p><i>C. Health effects</i></p> <ul style="list-style-type: none"> <li>- Smoking and heart diseases: Smoking can cause heart and coronary diseases with important symptoms as chest pain and heart attack. These diseases caused by the obstruction or narrowness of coronary artery.</li> <li>- Smoking and lung diseases: Chronic bronchitis, chronic obstructive lung disease, and cancers (mouth, throat, lung, stomach, liver, bladder...etc.). Research shows that 80% of lung cancer caused by smoking, and the chance of developing cancer increases with the number of cigarettes smoked.</li> </ul> <p><i>D. Passive smoking:</i> Inhaling tobacco smoke from smokers. Passive smoking can also cause several diseases like in smoking.</p> <ul style="list-style-type: none"> <li>- Pregnant women: Passive smoking affects both mother and baby (underweight, malformation, psychological problems, or death...)</li> <li>- Children and cigarette smoke: slow physical and psychological development, poor immunity against diseases (inflammation in nose, throat, lungs, bronchus, chronic cough, cold...). Passive smoking aggravates underlying diseases (asthma, heart diseases, or neurological diseases...).</li> </ul> <p>Parental smoking is a bad attitude for children.</p> <ul style="list-style-type: none"> <li>- Smoking in offices and public places: Smoking causes pollution in environment, affects health of surrounding people, and abuse the rights of people.</li> </ul> <p><i>E. Smoking prevention:</i> To avoid the risks, it is the best way to make home, offices, schools, hospitals, and public places free from smoking. Government has made efforts to prevent smoking by increasing cigarette tax, putting notice on cigarette packs, providing health education, banning cigarette advertisements, introducing laws against smoking in hospitals, restaurants, schools, offices, and public places, and prohibiting selling cigarette to children.</p> <p><i>F. Methods for smoking secession:</i> Self-commitment, setting up a timeline to stop smoking (today is the best), preparedness for smoking secession (throw cigarette away, keep yourself away from smokers, do not drink alcohol or coffee, eat vegetables and fruits, sleep sufficiently with regular exercise, seek for support from family and friends), and symptoms of addiction and how to control them.</p> <p><b>3. Alcohol</b></p> <p>Alcohol is not illegal drugs, but we should not drink it.</p> <p><i>a. Alcohol is a substance</i> leading to depression, not to encouragement like most people think. It slows down the messenger from brain to organs. It affects concentration and response to surrounding events.</p> <p><i>b. Alcohol and body:</i> After drinking the first 2-3 glasses, drinkers feel better by reducing concentration and reaction. If they drink more 2-3 glasses, they may show bad behavior and emotional (sad, happy, or mad). If they drink more, they would be confused and blurred. If more 2-3 glasses, they will throw up and sleep or may lead to unconsciousness or even death. Chronic drinking can cause mental disorders, cancers, hypertension, heart diseases, stomach ulcer or bleeding, hepatitis, liver cirrhosis, pancreatitis...etc.</p> <p><i>c. Women and alcohol:</i> Research shows that the effects of alcohol in women are different from those in men.</p> <ul style="list-style-type: none"> <li>- If drinking the same amount of alcohol, women have higher alcohol concentration in blood than men.</li> <li>- Drinking causes more severe liver problems in women.</li> <li>- Drinking women are more at risk for breast cancer and other diseases compared to nondrinkers.</li> <li>- In pregnant women, alcohol gets through placenta to fetus and can cause bleeding, abortion, or death. A baby born from drunken mothers can be present with alcohol additive symptoms and may lead to abnormality and death. For safety, pregnant women should refrain from alcohol intake</li> </ul>

		(WHO). <i>d. Methods for alcohol secession:</i> Medical treatment from health professionals with self-commitment, counseling with specialists, or other interventions.
Sociology: Morality and Life skills	8	<p>AIDS is hazardous disease without curative treatment. AIDS destroys your future, family, community, and country. It is therefore necessary to learn about HIV/AIDS.</p> <p>1. How can HIV not be transmitted? HIV cannot live in the air, water, or on any utensils that we can touch. You cannot get HIV from HIV-infected people through casual social communication such as holding hands, kissing, eating together, sharing toilet, studying in the same room, sharing phone, mosquito bite, taking bath or swimming together, visiting HIV-infected people, donating blood, coughing or sneezing, or taking bus together.</p> <p>2. Who can transmit or be transmitted with HIV? HIV never cares about social status: rich or poor, or race.</p> <p>3. How is HIV transmitted? - Having sex with an HIV-infected person, husband or wife having HIV without using condoms. - From mother to child: during pregnancy, delivery, and breastfeeding. - Transfusion with HIV-infected blood or sharing needle, tattooing, dental treatment, plastic surgery, or shaving using non-sterile utensils.</p> <p>4. What are the differences between HIV-infected person and a person with AIDS? HIV-infected person refers to a person with HIV (+) test but no clinical symptoms. AIDS is the terminal stage after HIV-infected with clinical symptoms and the patient finally dies. How can we know that a person is HIV-infected? We cannot say if somebody is HIV-infected by outer appearance. Only blood test can say if someone is HIV-infected.</p> <p>5. Is there any curative treatment for AIDS? You should remember that, so far, scientists have not found vaccine or curative treatment for HIV/AIDS yet. There are only care and treatments for opportunistic diseases.</p> <p>6. What are the preventive measures? - Do not involve with sex too early. - Be faithful among couple. - If you have extra sex partners, always use condom.</p>
Khmer literature	8	<p>AIDS is an infectious disease caused by HIV, and no curative treatment is available so far. In 1990, WHO estimated that there were about 8-10 million people living with HIV/AIDS. This figure shows that HIV/AIDS is a tragedy.</p> <p>This disease started first in Africa and has been doubled in every three years since 1978. In 1990, there were 5 million people living with HIV/AIDS among Africans. This disease has spread all over the nations in the world. In Southeast Asia, there were 500,000 people living with HIV/AIDS in 1990, most of whom were living in Thailand and India. In Cambodia, the prevalence of people living with HIV/AIDS increased from 0.075% in 1991 to 8% in 1995 (Popular Magazine).</p> <p>During this pandemic, many countries have spent great amount of money for prevention and treatment of HIV/AIDS. The worldwide expense was US\$3,898 millions in 1990.</p> <p>HIV/AIDS spread very rapidly in urban areas regardless race, country, social status, age, or gender. The transmission from one person to another is done through sexual intercourse, blood transfusion, sharing needle infected with HIV, and from mother to child through breastfeeding. Casual communication with a patient or sharing phone, plates, glasses, spoons, swimming pool cannot transmit HIV.</p> <p>If HIV has entered our body, what happens? From 3 to 6 months, nothing noticeable in 20% of HIV-infected people, another 20% have flu-like syndromes, and 60% can have increased immunity through blood tested. From 6 months to 7 years, some people sustain normal health, some present with frequent sickness. One third of the people have enlarged adenopathies, weight loss, common cold, severe diarrhea... but can eat and involve in social activities as usual. From 7 to 10 years, it is the severely suffered time. Defense systems become weak allowing many diseases to kill the patients easily.</p> <p>HIV/AIDS is therefore a very dangerous disease involving with all of us, but it can be avoided. We should not hold discrimination against people with HIV/AIDS and help the world to fight against this disease for our next generation.</p>
Sciences: Biology and Earth study	9	<p>STIs are infectious diseases transmitted from one person to another through sexual intercourse. These diseases often occur in adults, especially youths.</p> <p><i>a. Gonorrhoea:</i> It is an STI caused by gonococcus. This disease is transmitted from one person to another through sexual intercourse with an infected person. A person with gonorrhoea may become sterile, inability to have a baby. Gonorrhoea can cause several complications such as heart diseases, arthritis, or even blindness. For pregnant woman, infection with gonorrhoea can also be transmitted to baby. Without a timing treatment, it can cause malformation of the fetus.</p> <p><i>b. Syphilis:</i> This disease is caused by treponema bacteria and is transmitted from one person to another through sexual intercourse. At the end stage, this disease can cause articular deformation, muscle dysfunctioning, or mental disorders. This disease can also be transmitted from mother to baby. Being infected causes the disease in the new born baby. The baby may die, disable, spine or teeth abnormality.</p> <p>Do you know? STIs are diseases different from other diseases. Our body systems cannot produce immunity against these diseases, and there are also no vaccines against them. People infected with STIs are susceptible to HIV infection. Because these diseases are transmitted through sexual intercourse, the only preventive measure is avoiding having sex.</p>
Sciences: Biology and Earth study	9	<p>AIDS is caused by a virus called HIV. HIV destroys immune systems by killing lymphocytes. Lymphocytes are a type of cell that produces antibody against bacteria or virus. AIDS patients may die from opportunistic diseases such as chronic lung diseases, diarrhea, fungus, and skin cancer or bones. HIV can also destroy brain cells leading to poor memory, behavioral change, and death.</p> <p><i>How is HIV transmitted?</i></p> <p>a. HIV is transmitted through sexual intercourse: During sexual intercourse, HIV can be transmitted through secretion from men to women and vice versa.</p> <p>b. HIV is transmitted through physiological fluid such as blood, lymph...etc. We can get HIV infected if we get blood from an HIV-infected person. Such cases happen when: + We share used needle or syringes for tattooing, ear piercing, tooth brush with an HIV-infected person and through skin cuts or injury. + We receive HIV-infected blood.</p>

		<p>c. HIV can also be transmitted from HIV-infected mother to child.</p> <p><i>Preventive behavior to avoid HIV infection:</i> HIV cannot be transmitted through casual communication with HIV-infected person such as sharing towel, comb, eating together, sharing toilet, classroom... etc.</p>
Sciences: Biology and Earth study	9	<p>Negative effects of addictive drugs: Most of the people do not drink alcohol, do not smoke cigarette, do not sniff glue, and also do not use heroin. However, we should know the negative effects of addictive drugs on health.</p> <p><i>I. Addiction:</i> When people smoke marijuana, they can see, hear, or smell more than usual. Marijuana smokers may have complicated feeling and do something dangerous such as jumping down from high building.</p> <p>When people use heroin for the first time, they can feel happy. But a while later, they feel unrest, so they have to use more than last time to make them happy. Finally, they cannot live without heroin.</p> <p>Addictive drug users tend to use larger and larger amount of drug from time to time to make them feel good. Later on, they will become drug dependent. Drug addicts are those living depend on drugs. Drug addicts cannot work well without drugs. Only a little amount of alcohol can make people lost of carefulness leading to several accidents. If they continue drinking, they feel dizzy, blurred, lost of concentration and start quarrel with others. If they continue drinking, they will lose consciousness or even die.</p> <p>Tobacco dependence makes people feel want to smoke.</p> <p>In addition to the addiction to the above-mentioned drugs, some people get addicted some other products such as glue or paint. For glue or paint, it has no negative effects if we use it properly. But if we sniff these chemical substances, toxins can get through our blood and affect our brain. People who use glue or paint can feel lifting, worried, abdominal pain, and kidney or liver destruction.</p> <p><i>II. Negative effects of drug dependence:</i></p> <p>1. Negative effects on mentality: Drug addicts may have several mental and psychological problems. They may feel mad, crucial, and lost of concentration. These feelings lead to mental and psychological problems.</p> <p>2. Negative effects on physical conditions: People addicted to marijuana or heroin may cause danger to brain, lungs, kidneys, liver, and death.</p> <p>Some drugs need to be injected. If they use infected needle, it can lead to the spread of infectious diseases such as HIV/AIDS.</p> <p>3. Social effects: Drug addicts lost self-control. They can do anything to get drugs without considering on the consequences for themselves, family, friends, or society. For example, drug addicts cannot work leading to job losses, school dropout, and can commit criminal acts to obtain drugs...etc.</p> <p>Do you know how your friends who are drug addicts behave? The following attitudes and behaviors may tell you that your friend is drug addict:</p> <ul style="list-style-type: none"> <li>- They usually have crazy feeling and exhausted, and they like hiding themselves in quiet places.</li> <li>- They like borrowing or stealing money.</li> <li>- They are frequently absent from school and do not study much.</li> <li>- Their eyes look different from others' and tear comes frequently.</li> <li>- They do not care about themselves, family, and friends.</li> </ul> <p>The above-mentioned examples can help you identify the characteristics of drug addicts. But some characteristics may reflect the feelings of youth in developmental stage. Nevertheless, if your friends present with such behavior, you should report them to your teachers or their parents in order to find a proper ways to educate them.</p>
		<p>Addictive drugs are dangerous for anybody if they use them.</p> <p><b>I. Cigarette</b> When a person smokes cigarettes, several toxins absorb into their body. The toxins can cause several problems and can even kill the smokers. While smoking, small black particles enter the lungs. These particles can cause cancer.</p> <p><i>1. Substances in cigarette:</i> When a cigarette is burnt, it releases more than 4000 chemical substances that can be divided into nicotine, carbon monoxide, substances than cause inflammation... etc.</p> <p>What are the dangers caused by these substances?</p> <ol style="list-style-type: none"> <li>a. Black sticky substance than can cause lung cancer</li> <li>b. Nicotine is used as insecticide. It is more toxic than DDT, a very strong insecticide.</li> <li>c. Carbon monoxide is synthetic toxin. It can be released from car smoke.</li> </ol> <p>Nicotine and carbon monoxide can cause diseases in heart and other parts of the body.</p> <p>d. Inflammatory substances are chemical substances which cause inflammation in lungs and airways. It can also cause cancer.</p> <p>Although you do not smoke, your heart and lungs can also be affected if you breathe cigarette smoke from smokers around you. This is called passive smoking. Passive smoking can also lead to cancer.</p> <p><i>2. Smoking and heart diseases</i></p>

		<p>Smoking can cause destruction of inner layer of blood vessels and increase the fat accumulation in the vessels that can cause obstruction of blood flow to heart. In such condition, heart cannot receive sufficient feeding and oxygen and becomes dysfunctional leading to heart attack.</p> <p><b>3. Smoking and lung diseases</b></p> <p><b>a. Lung cancer:</b> Lungs of smokers has told a sad story.... "Initially, I was clean and healthy. Then my lord started smoking. The sticky black substances from cigarettes entered and accumulated in my body. My cells got severe inflammation. Those cells unusually increased time to time. Finally, I got cancer."</p> <p>Can a person with lung cancer survive? Airways in ill lungs were occupied by tumor of cancer cells. This tumor blocks air in and out of the lungs and finally, the patient die.</p> <p><b>b. Bronchitis</b> In bronchus, there are several cleaning systems to protect against dust and bacteria in the lungs. Smoking makes the cleaning systems malfunctioned. Dust and bacteria can enter the lungs easily. So smokers cough frequently with sputum. Smokers would be affected by bronchitis.</p> <p><b>An idea for consideration:</b></p> <ol style="list-style-type: none"> <li>a. A spends 1000 Riel to buy a pack of cigarettes. There are 20 cigarettes in a box. How much does he spend for a cigarette? He smokes 30 cigarettes per day. So how much he spends per day for cigarettes? If he stops smoking for one year (365 days), how much can he save?</li> <li>b. He smokes for 40 years. A cigarette can reduce 5 minutes of his life. Please find how long he has reduced his life?</li> <li>2. How should you respond to a cigarette offer from your friends?</li> </ol> <p><b>II. Alcohol</b> Alcohol is not illegal substance, but we should not drink alcohol. Alcohol includes beer, rice wine, and grape wine that are produced from grains and fruits. Most people think that alcohol makes people happy, but it is not true. Alcohol is an addictive substance that can decrease both physical and psychological strength. Alcohol intake can lead to unconsciousness or even death. Heavy alcohol drinking causes liver diseases and stomach ulcer. Alcohol addicts cannot live without alcohol. Alcohol makes people less careful leading to traffic accidents. After people drink too much alcohol, they become out of control and blurred. They have difficulties in speaking and thinking, and they may fell down or die.</p> <p><b>Caution:</b></p> <ul style="list-style-type: none"> <li>- If you drink, don't drive.</li> <li>- If you drive, don't drink.</li> </ul> <p><b>III. Heroin</b> Heroin is made from white opium. Heroin is very addictive drug. Heroin is illegal in Cambodia. Heroin trafficking is illegal. Heroin affects both physical and mental health. When addicts stop using heroin, they will feel difficult breathing, sleeping, and sad.</p> <p><b>IV. Marijuana</b> Like heroin, marijuana can make people happy. Marijuana can decrease both physical and psychological strength. People can become marijuana addicts. Addiction to marijuana can also cause traffic accidents.</p>
<p>Sociology 2</p> <ul style="list-style-type: none"> <li>- Morality</li> <li>- Life skills</li> </ul>	<p>9</p>	<p>All families wish to live in happiness and prosperity. Happiness does not totally depend on money but on several other factors including education, health, love, loyalty, and care for each other. Moreover, a family happiness occurs only when the family make a plan to ensure daily living, and maternal and child health.</p> <p><b>Family planning</b> With contraception, parents can make a clear timeframe to have babies. The best interval is three years or more. Contraception enables parents to think about their children's future.</p> <p><b>Why is contraception important?</b> Thousands of women are exposed to dangers during pregnancy and delivery because they do not use contraception services. Those women are in age under 20 and over 35 years with more than five children and the interval between children is less than two years. Most of those women cannot receive information regarding the dangers, so they cannot make decision on the use of contraception services. The reasons include:</p> <ul style="list-style-type: none"> <li>- Getting pregnant before the age of 18 or older than 35 years which increases the risks for both mother and child.</li> <li>- The dangers to babies increase up to 50% if the child interval is less than two years.</li> <li>- Having more than four children also increases the risks during pregnancy and delivery.</li> </ul> <p>Contraception can therefore help couples set up a time to have a baby as well as the number of children they want and the time when they no longer want more children.</p> <p><b>Contraception methods</b></p> <p><b>a. Temporary contraception methods:</b></p> <p>Natural methods</p> <ul style="list-style-type: none"> <li>- Sexual restriction: This requires agreement between couple not to have sexual intercourse. This method is the best one for unmarried partners. People who want to use this method must have good self-control.</li> <li>- Natural method: This method is based on calendar and related to menstrual cycle of women. To be clear about this method, a couple should receive education from a trained professional.</li> <li>- Another method is avoiding ejaculation inside the female sexual organ.</li> </ul> <p><b>Modern methods</b></p> <ul style="list-style-type: none"> <li>- Condom use: Condom is made of thin plastic material and used to put on male sexual organ before having sex.</li> </ul>



	<ul style="list-style-type: none"> <li>- Oral contraceptive medicines: These drugs must be used daily to prevent ovulation.</li> <li>- Injective contraceptive medicines: They are as effective as oral contraceptive medicines.</li> <li>- Other methods.</li> </ul> <p><i>b. Permanent contraception:</i> Sterilization can be done for both men and women.</p> <p><b>Advantages of contraception</b></p> <ul style="list-style-type: none"> <li>- Allows us to set up a child interval.</li> <li>- Reduces maternal and child risks.</li> <li>- Increases opportunity for education and care for children.</li> <li>- Reduces poverty.</li> </ul> <p><b>Centers for contraception services</b></p> <p>Many health centers can provide effective and safe contraception services. Couples should consult with well trained health personnel at/with:</p> <ul style="list-style-type: none"> <li>- Public health centers</li> <li>- Hospitals</li> <li>- Private practitioners</li> <li>- Health professionals</li> <li>- Midwives</li> <li>- Pharmacists</li> </ul>
	<p><b>Home health promotion</b></p> <p><i>A. Insects in home</i></p> <p>Clean home with hygiene help protect family members from infectious diseases and feel happy with daily living. So home health promotion is the task of each family member. Moreover, the whole community should work together to promote hygiene and disease prevention. To achieve this goal, we should remember that "Prevention is better than cure" which means we should care our health because of diseases are preventable.</p> <p><i>Insect control in home</i></p> <p>Insects and small animals living in dirty places are agents transmitting pathogens to humans. Dirty homes become dwellings of ants, mice, or mosquitoes. They cause harm to humans with infections of malaria, typhoid, or dengue fever...etc.</p> <p>To control these insects and prevent these diseases, we should:</p> <ol style="list-style-type: none"> <li>1. Keep our homes and surrounding environment clean.</li> <li>2. Cover our food properly.</li> <li>3. Wash cooking utensils and keep them properly.</li> </ol> <p><i>B. Keeping home clean</i></p> <p>Home hygiene is the task of each family. So each family member should help keep their home clean and tidy. To keep your home clean we should:</p> <ol style="list-style-type: none"> <li>1. Put net on cupboard and cover foods to protect from insects.</li> <li>2. Place cookers near the window.</li> <li>3. Hang fried pans on the wall.</li> <li>4. Wash dishes and pots with detergent and dry it under the sun.</li> <li>5. Clean and dry sleeping utensils at least once in a week.</li> <li>6. Keeping animals away from home to prevent worms and insects.</li> <li>7. Keep garbage properly.</li> </ol> <p><i>Hygiene in kitchen and bathroom</i></p> <p>Used water from kitchen and bathroom should be drained into a close drainage system.</p> <p><i>Hygiene in toilet</i></p> <p>Stool is the source of pathogens which can be spread into dust, air, and wind. Flies and mosquitoes can also transmit these pathogens to humans. It is thus necessary to use toilet.</p> <p><i>How to build a toilet (shown in pictures)</i></p> <p><i>The use of clean water</i></p> <p>Malaria is a disease caused by a parasite named plasmodium, and transmitted by anopheles. Malaria commonly affects people living in countries with hot climate, forest, wet, or with ponds...etc. People at all ages, in any gender can be suffered from malaria. Thus it is necessary that all families in the community should learn about this disease.</p> <p><i>Symptoms and dangers from malaria</i></p> <p>a. Symptoms:</p> <ul style="list-style-type: none"> <li>- Fever, convulsion, muscle pain.</li> <li>- Unconsciousness in case no timing and appropriate treatment.</li> <li>- Severe lacking of red blood cells (especially among children and pregnant women).</li> <li>- Paleness, especially on lips, nails, and eyes.</li> </ul> <p>b. Dangers</p> <p>The most vulnerable victims of malaria are children and pregnant women. Every year, there about 100 million malaria patients in the world, out of these, several thousand children die and become malnourished. In pregnant women, malaria causes anemia, abortion, preterm delivery, or</p>

	<p>stillbirth. Babies born from mothers with malaria are weak, underweight, and susceptible to diseases.</p> <p><b>Primary support</b>  In malaria zones, if a family member develops fever, you should:</p> <p>a. For children:</p> <ul style="list-style-type: none"> <li>- Provide primary care for diarrhea and cough.</li> <li>- Seek for help from medical personnel.</li> <li>- Support parents for providing appropriate medication.</li> <li>- Follow-up the patients after treatment. If not improve, send the patients to the health center again.</li> </ul> <p>b. For pregnant women</p> <ul style="list-style-type: none"> <li>- Provide primary care for malaria patients.</li> <li>- Seek for help from medical personnel urgently.</li> </ul> <p>Note: Only appropriate medicines against malaria can save life of pregnant women and their babies.</p> <p><b>Dangers and referral</b>  Living in a malaria zone is a danger sign, and you should send patients to the nearest health center immediately when they have fever or one of the following symptoms:</p> <ol style="list-style-type: none"> <li>1. Convulsion.</li> <li>2. Unconsciousness.</li> <li>3. Lack of red blood cells (pale on lips, nails, and eyes).</li> <li>4. An infant stops having breastfed.</li> </ol> <p><b>Prevention</b>  The agent for malaria transmission is anopheles. So you have to prevent this disease by using the following measures:</p> <ul style="list-style-type: none"> <li>- Sleeping in a bed net every night (especially medicated bed net).</li> <li>- Putting net on the doors or windows.</li> <li>- Using anti-mosquito spray...etc.</li> </ul> <p><b>Roles of community in malaria control</b>  Mosquitoes can breed in places containing water such as ponds, used tires, cans... etc. You should use any measure to kill the larvae by covering water containers or putting small fishes... etc.</p> <p><b>What you should do in malaria zones?</b>  In a malaria zone we should:</p> <ul style="list-style-type: none"> <li>- Dress well to cover our body and always sleep in a bed net, especially for pregnant women because they two times more likely to get infected by malaria than general people.</li> <li>- Take anti-malaria medication with instruction from medical personnel. Pregnant women should take these drugs from the beginning of the pregnancy.</li> <li>- For children, if they have fever, you should take them to see a health professional immediately. If not better, you should refer them to a hospital.</li> </ul> <p><b>Care for malaria patients</b>  For children with high fever, we should control it by:</p> <ul style="list-style-type: none"> <li>- Giving them paracetamol.</li> <li>- Cleaning their body with wet towel.</li> <li>- Keeping their body free from covering.</li> <li>- Following prescription.</li> </ul> <p>After recovering, give water and food to patients because they lose large amount of water. This can also avoid malnutrition and dehydration.</p>
	<p><b>Situation of infant nutrition in Cambodia</b>  Based on UNICEF, infant mortality rates is one of the most significant problems in Cambodia. Out of 1000 infants born, 115 die, mostly from malnutrition. There are several types of malnutrition. Deficiency protein and energy in infants is common and dangerous. Some infants have problems since before delivery. Reports from UNICEF on nutrition analysis shows that, if no action is taken to improve infant nutrition, among 1000 newborn babies:</p> <ul style="list-style-type: none"> <li>- 200 are underweight (&lt;2.5 kg)</li> <li>- 400 are underweight and stunting.</li> <li>- 80 are underweight in relation to height.</li> <li>- 65 suffered from night blindness due to lack of vitamin A.</li> <li>- Some children will be suffered from lack of iodine.</li> </ul> <p><b>Problems of malnutrition</b>  A study conducted by Child Fund Cambodia shows that situation of nutrition of Cambodian children living on the border are at high risk of malnutrition and seasonal diseases. These conditions are caused by lack of protein and energy leading to underweight, stunting, lack of vitamins, and anemia. Malnutrition is caused by inappropriate ways of feeding, poor healthcare services, poor hygiene, and lack of care.</p> <p><b>Foods for infants</b>  In Cambodia, most of the infants are fed by using breast milk. Breast milk is the best nutrient for infants. But some misunderstandings should be corrected. For example, most of mothers breastfeed their boys longer than girls due to a belief that boys need more power than girls.</p> <p><b>Breastfeeding</b>  The first food for infants is milk. Breast milk is the best nutrient for newborn babies. Breastfeeding has several advantages because it provides natural nutrients with good balance in quality and quantity in relation to infant development. Usually, mothers wish to breastfeed their baby. This can provide several benefits to mother such as:</p> <ul style="list-style-type: none"> <li>- Feeling of warmth and happiness.</li> <li>- Breastfeeding can be done at anytime without preparation needed.</li> <li>- Breastfeeding helps normalize mothers' body.</li> </ul>

- It delays menstruation.
- It is a special experience between mothers and children.

**Qualifications of breastfeeding:**

- Breast milk contains several nutrients required for infant development.
- Breast milk composition changes based upon infant need. At the beginning, breast has light yellow color rich in protein called colostrums, and it then becomes milk for development.
- Breast milk contains antibody which can protect infants from diseases.
- Breast milk is easy to digest.
- Breast milk can prevent infants from constipation.
- It helps infants to adapt with different temperature and places.
- Breastfeeding puts mothers and infants in close relationship.

**Preparation for breastfeeding**

Pregnant mothers follow the following practices for breast feeding preparation:

- One month before delivery, mothers should clean their nipples every day.
- After delivery, mothers should clean their nipples regularly with warm water.
- Dress properly.
- Consult with health professionals before using medication during breastfeeding.

**Appropriate breastfeeding**

- Take care of breasts to get more milk. Mothers should allow infants to empty the breast at each feeding time.
- Breastfeeding interval should be 3-4h.
- Take care of infants after feeding.
- Change to another breast regularly.

**How to give breastfeeding**

You should start breastfeeding promptly and frequently after delivery. You can give breastfeeding any places, but mothers should stay at a comfortable place such as sleeping on the side, sitting on a bed or chair with baby in hands.

**Breastfeeding at night**

All babies need feeding at night. Mothers should note that, when a baby wakes up at night, it means he feels hungry. Moreover, baby need warmth from mothers.

Should we stop breastfeeding when the mother get pregnant? We should continue breast feeding because the quality of milk remains good, although the quantity decreases. Breastfeeding does not interfere the pregnant baby, but mothers should eat sufficiently. Usually, mothers with frequent pregnancies cannot have sufficient milk.

**How to feed baby when mothers works away from home?**

If mother is absent for short time, she can feed the baby before leaving home. But if work for long time, she can take baby along because baby can be fed at any time and any place. If the baby is left at home, she should prepare for home feeding.

**Until how old should a baby be breastfed?**

Give breastfeeding as long as possible. Breast milk remains important for baby growth until the age of two years. All mothers can have sufficient breast milk only until the age of 4-6 months. Mother should thus provide supplementary food in addition to breast milk.

**How to stop breastfeeding?**

Do it gradually with supplementary food and follow up if the baby grows normally.

**Formula milk feeding**

In case mothers cannot give breastfeeding, the baby should be fed by formula milk. Health professionals can provide advises on how to use it.

Formula milk is produced to support appropriate growth of infants. Formula milk has several types, and health professionals can provide advises on how to choose the best one for your baby.

In the first week of life, infants can take the milk every 2-3h, but when they get bigger, they do not need so frequently and we can give them every 4h. If they feel hungry between the times, you may give them boiled water. When they turn away from the bottle, it means they are full.

**Methods and advantages of formula milk**

You can prepare formula milk in advance and keep it in a fridge and warm it as needed.

- Bottles should be boiled before use.
- No need mothers while feeding.
- Mothers can go to work as usual.

**How to give formula milk feeding?**

**How to start giving additional foods?**

**Table of daily additional foods**

**Nutrition for children aged older than 2 years**

A child aged older than 1 year can eat like other family members. You should control their nutrition appropriately if it contains appropriate nutrients.

## Laos

Subject	Grade	Description
Language	2	<p>Lesson 4<sup>th</sup>: Keeping cleanliness</p> <p>Reading</p> <p>A morning, students are inline in front of class room. Teacher walks around the students and said:          "You are orderliness".</p> <p>Then teacher checks out of student's cleanliness. Teacher finds body and clothes of everybody are not dirty, nail is not long in both hand and feet, mouth and teeth are clean. Teacher have expresses words as happiness that:          "All of you could keeping cleanliness like this then you are will be healthy"</p> <p>All students are happy and they start their class with happiness .</p> <p>Explain the meaning of words</p> <p>Healthy: It's not sick</p> <p>Clean: It's not dirty</p> <p>Question</p> <ol style="list-style-type: none"> <li>1. What did the teacher say after walked around the students?</li> <li>2. How were the body and clothes of students?</li> <li>3. What did the teacher say after checked the cleaning of students?</li> </ol> <p>Lesson 10<sup>th</sup>: Personal hygiene</p> <p>Reading</p> <p>Every day, Ms. Many wakes up in early morning. She keeps her bed then went to help her parents.</p> <p>When her work finishes, she hurries and goes for body cleansing such as tooth brush, rinses the mouth, takes shower, soap and focus at neck, arm-legs and body. Then Ms. Many goes for making up herself, put on skirt, shirt and combs the hair, then breakfast before leaves for school. She had ordered of cleaning the body guide as teach had expression in every day.</p> <p>Therefore, Miss. Many away is intelligence and healthy.</p> <p>Explain the meaning of words</p> <p>Hygiene: Without diseases, cleanliness</p> <p>Make up: Do to be beauty</p> <p>Question</p> <ol style="list-style-type: none"> <li>1. What did Ms. Many do after her waking up?</li> <li>2. What did she do after helping her parents?</li> <li>3. What did she do before leaving home for school?</li> <li>4. What did Ms. Many do for hygienic.</li> </ol> <p>Lesson 23<sup>rd</sup>: Housecleaning</p> <p>Materials</p> <p>Broom/Trash receiver /Trash bin</p> <p>Replace clothes/ Replace toys</p> <p>Step of sweeping</p> <ol style="list-style-type: none"> <li>1. Hold the broom by left or right hand a little bend down the head in front direction. Keeping the broom touches the floor.</li> <li>2. Focus on each corner in the house and sweep out from inside to outside.</li> <li>3. Sweep whole room floor, collect debris in a point</li> <li>4. Use broom to sweep debris to trash receiver</li> <li>5. Trash debris into the bin</li> </ol> <p>Lesson 26<sup>th</sup>: Grille the meat</p> <p>Materials</p> <p>Plate/ knife/ chopping block/ mortar</p> <p>Pestle/ holder (bamboo)/ tier (bamboo)/ stove</p> <p>Ingredients</p> <p>Salt/ meat/ lemongrass/ garlic</p> <p>Preparing</p> <ol style="list-style-type: none"> <li>1. Wash meat</li> <li>2. Cut meat</li> <li>3. Slice lemongrass and garlic</li> <li>4. Crash lemongrass/ garlic/ salt by mortar and pestle</li> </ol> <p>Step of grilling</p> <ol style="list-style-type: none"> <li>1. Use holder (bamboo) to hold the meat.</li> <li>2. Grill whole the holder (bamboo) and meat</li> <li>3. Turn over for a time till meat ready for serving</li> <li>4. Place it to plate for serving</li> </ol> <p>Lesson 27<sup>th</sup>: Washing vegetable</p> <p>Materials</p> <p>Knife/ big bowl/ small bowl/ basket/ bucket</p> <p>Ingredients</p> <p>Salt</p> <p>Preparing</p> <ol style="list-style-type: none"> <li>1. Place the bowl</li> <li>2. Place the bucket with water</li> <li>3. Place the basket with vegetable</li> </ol> <p>Steps of washing</p>