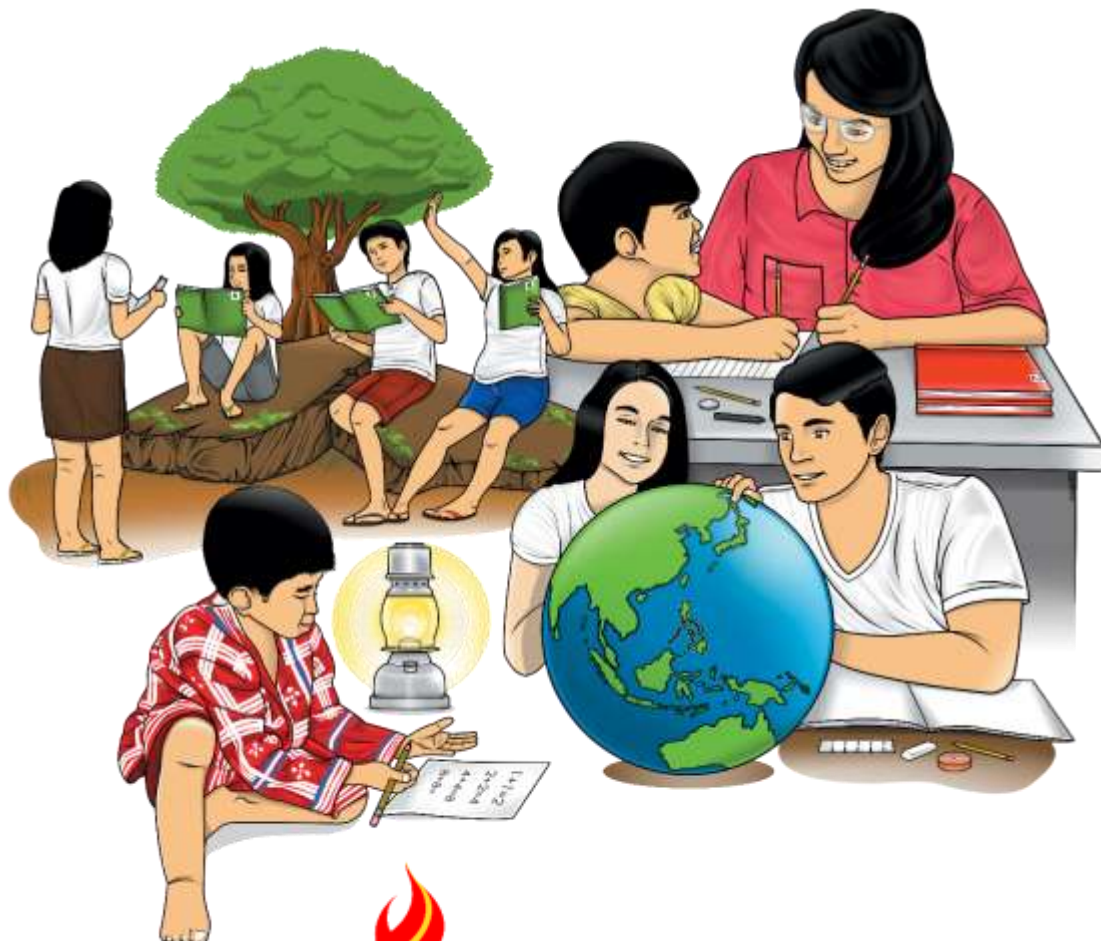


AQUACULTURE

EXPLORATORY COURSE

Quarter 2 – Module 11: PERFORMING FIRST AID AND TREATMENT ON BOARD (PFTB)



AQUACULTURE – Grade 7 and Grade 8

Alternative Delivery Mode

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AQUACULTURE EXPLORATORY COURSE

Quarter 2 – Module 11:
PERFORMING FIRST AID TREATMENT ON BOARD
(PFTB)

EXPLORATORY COURSE

GRADE 7 and GRADE 8

Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.

Lesson**5****LO 4. Manage Injuries and Adapt First Aid procedures for remote areas****COMPETENCY CODES:**

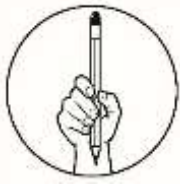
- Manage injuries and adapt first aid procedures for remote areas.
(TLE_AFAFCAP9-12PFTB-IIIg-h-21)

***What I Need to Know***

This module was designed and written with you in mind. It is here to help you master the nature of Aquaculture. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

After going through this module, you are expected to:

1. Correctly manage problems and treatment associated with dislocated joints in accordance with established procedures;
2. Correctly perform first aid treatment of Pelvic and Chest injuries and fractures of limbs, including the immobilization techniques, in accordance with established procedures;
3. Identify the symptoms and signs of sprains and strains in accordance with established procedures;
4. Apply safety precautions needed to prevent accidents, illness, injuries and infection in remote areas;
5. Identify the factors involving the prevention of heat and cold exposure;
6. Discuss the factors involving the prevention of heat and cold exposure;
7. Identify the signs and symptoms of hyperthermia and hypothermia;
8. Apply appropriate first aid procedures in hyperthermia and hypothermia;
9. Manage casualty with severe injuries including transport from remote situation;
10. Identify the necessary first aid and resources and emergency equipment required for remote area; and
11. Identify symptoms and signs of fractures (simple and complicated).



What I Know

Choose the letter of the best answer. Write your answer on a separate sheet.

1. What is a muscle injury that involves stretching or a partial tearing of ligaments?
A. Fracture B. Strains C. Sprains D. Muscle pain
2. C in the acronym R.I.C.E means ____
A. Cover B. Compression C. Compound D. Combat
3. Which of the following is the possible sign or symptom of pelvic injury?
A. Pale and clammy skin
B. Loss of energy
C. Pain in the joints
D. Loss of power
4. Which of the body parts that are connected by tendon?
A. Two bones B. Muscle and tendon C. Joint and muscle
D. Muscle and bone
5. Discoloration and burning is a sign of ____
A. Fracture B. Sprains C. Pelvic injury D. Collapsed bone
6. What is a condition where an individual's body temperature is elevated beyond the normal due?
A. Hypothermia B. Heat loss C. Hyperthermia D. Hypoglycemia
7. Wearing light colors is good for preventing _____.
A. Heat resistance B. Cold exposure C. Hypothermia D. Heat exposure
8. The following materials can be found inside the first aid kit, EXCEPT.
A. Bandages B. Herbal tablet C. Scissors D. Sunblock cream
9. What is the condition of the body where temperature falls below 33°C?
A. Heat exposure B. Hypothermia C. Hyperthermia
D. Hypothyroidism
10. Heavy works should be done _____.
A. In the morning B. At noon C. During midnight
D. In the afternoon



What's In

Study the images on the box below. Identify the possible injury of each picture if it is **Fracture**, **Pelvic injury**, **Sprain**, **Strain**, **Hypothermia** or **Hyperthermia**



















What's New

Write the injury for each group of signs and symptoms.

1. Loss of power, tenderness, swelling _____
2. Severe pain, pale, clammy skin _____
3. Discoloration and burning _____
4. Pain in the joints, warmth and redness _____
5. Nausea, faintness or giddiness _____
6. Trouble moving the injured part, swelling _____
7. Deformity or abnormal mobility, pain at or near
the site of the injury _____
8. The body temperature falls below 33°C _____
9. The person's body produces or absorbs
more heat than it dissipates _____
10. Extreme sweating that is beyond normal _____



What is It

What is a Fracture?

A fracture, also known as a broken bone, is a condition that changes the contour (shape) of the bone. Fractures often occur when there is a high force or impact put on a bone.

Types of Fracture

1. **Compound fracture** is a fracture that appears to be closed (the skin is not broken) or open, (the skin is open and the risk of infection is significant).
2. **Displaced fracture** are fractures that are displaced (there is a gap between the two ends of the bone) and these fractures often require surgery.
3. **Partial fracture** is an incomplete break of a bone.
4. **Complete fracture** is a complete break of a bone, causing it to be separated into two or more pieces.

5. **Stress fracture** sometimes called a “hairline fracture,” is like a crack and may be difficult to see with regular X-rays.

Signs and symptoms

Signs and symptoms can include:

- pain at or near the site of the injury
- difficult or impossible to move normally
- loss of power
- deformity or abnormal mobility
- tenderness
- swelling
- discoloration and bruising

How to manage fracture or dislocation

- Follow DRABCD action plan.
- Control any bleeding and cover wounds.
- Check for fractures whether it is open, closed or complicated.
- Ask patient to remain as still as possible.
- Fractured area must be immobilized.
- Use broad bandages to prevent movement of joints above and below the fracture.
- Support the limb carefully by passing bandages under the natural hollows of the body.
- Along the injured limb, place a padded splint.
- Place padding between the splint and secure firmly.
- Immobilize foot and ankle for leg fracture.
- Check that bandages are not too tight (or too loose) every 15 minutes.
- Watch for signs of circulation loss to hands and feet.
- Ensure that an ambulance has been called.

Notes on first aid

- To avoid further injuries, do not attempt to force a fracture or dislocation back into place.
- If in doubt, always treat the injury as a fracture since it is difficult for a first aider to tell whether the injury is a fracture, dislocation, sprain or strain.
- Support arm on injured side in a St John sling for collarbone fracture.
- If you suspect the joint is dislocated, rest, elevate and apply ice to the joint.

PELVIC INJURY

The most common form of hip injury is a fracture of the neck and the femur (thigh bone) within the hip joint. The pelvis itself is usually injured by an indirect force such as a crushing injury.

Hip fractures tend to occur after a fall, particularly in elderly women with osteoporosis (bone thinning), for whom this injury is a major cause of disability. Sometimes a victim can bear weight and even walk on a fractured hip. Delayed treatment can lead to long-term complications. Always seek medical attention for a serious impact on the hip, especially in an elderly person. The pelvis may be damaged by crushing or an impact on the knee that forces the head of the femur back through the hip joint, as may occur in a car crash. Pelvic injuries are often very serious due to associated damage to blood vessels, nerves and nearby organs.



Signs and Symptoms

Hip and pelvic injuries share several symptoms. These may include:

- severe pain, which increases with movement inability to stand or walk
- nausea, faintness or giddiness
- pale, clammy skin
- signs of shock from internal bleeding
- swelling and bruising

A fractured neck of femur may cause the limb on the affected side to become **shortened** and **externally rotated** so the foot is facing outwards.

First Aid Treatment for Pelvic Injury

1. Help the casualty to lie down and place some support alongside the leg, such as a folded blanket.
2. Call for emergency medical assistance
3. While awaiting the ambulance, immobilize the leg by splinting it to the other leg
4. Treat shock if it develops but do not raise the legs.

Chest Injury Treatment

1. Begin CPR, if Necessary

If the person is unresponsive, has stopped breathing, or is gasping for air:

- For a child, start CPR for children.
- For an adult, start adult CPR.

2. Cover an Open Wound

- Use a cloth, pad, piece of clothing, plastic, aluminum, or whatever is at hand.
- If possible, cover two inches beyond the edge of the wound.
- If blood bubbles up from the wound or you hear air passing through the chest cavity, tape cover down on three sides to prevent air from building up in the chest.
- Do not remove any objects that have penetrated the chest.

3. Stop Bleeding, if Necessary

- Apply pressure over dressing to control bleeding.
- If blood soaks through the dressing, apply additional dressing on top of old one.

4. Position Person to Make Breathing Easier

- If possible, place the person on the injured side or sitting up.

5. Monitor Breathing

- If breathing becomes weak, apply CPR as instructed above.

6. Follow Up

- The medical team will assess the injury and stabilize the person.
- A blood transfusion may be necessary if there is significant blood loss.
- A temporary chest tube may be placed to remove air surrounding the lung, which could cause the lung to collapse. When a lung collapses, it is called pneumothorax.
- Surgery is likely for a serious chest injury.

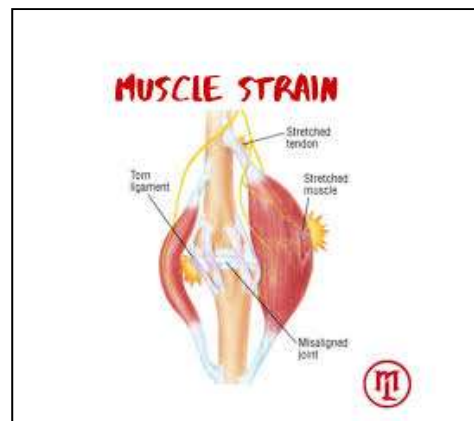
STRAINS and SPRAINS

Strains - are injuries to muscle or tendons (which connect muscle to bone) due to overstretching.

Sprains - involve a stretch or a partial tear of ligaments (which connect two bones).

Signs and Symptoms

- pain in the joint or muscle
- swelling and bruising
- warmth and redness of the injured area
- trouble moving the injured part



What to Do

Think **R.I.C.E.** for the first 48 hours after the injury:

- **REST**: Rest the injured part until it's less painful.
- **ICE**: Wrap an icepack or cold compress in a towel and place over the injured part immediately. Continue for no more than 20 minutes at a time, four to eight times a day.
- **COMPRESSION**: Support the injured part with an elastic compression bandage for at least 2 days.
- **ELEVATION**: Raise the injured part above heart level to decrease swelling.



Hyperthermia is a condition where an individual's body temperature is elevated beyond normal due. The person's body produces or absorbs more heat than it dissipates. When extreme temperature elevation occurs, it becomes a medical emergency requiring immediate treatment to prevent disability or death.

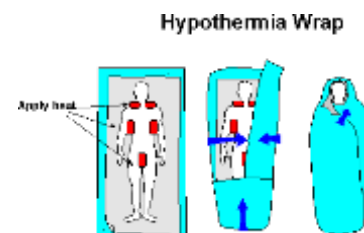
Treating hyperthermia include:

- sipping cool water or an electrolyte drink
- loosening or removing excess clothing
- lying down and trying to relax
- taking a cool bath or shower
- placing a cool, wet cloth on the forehead
- running the wrists under cool water for 60 seconds
- placing ice packs or compresses under the arms and groin
- using a fan to cool the skin

Hypothermia is condition in which body temperature falls below 33°C. People at greatest risk are those who are lying immobile in a cold environment, such as people who have had a stroke or a seizure or who are unconscious due to intoxication, those with low blood sugar level, or those with an injury. Because they are not moving, these people generate less heat and also are unable to leave the cold environment. The very young and the very old are at particular risk.

First aid for hypothermia includes the following steps:

- move to warm area
- stay active
- remove wet clothes and replace with dry clothes or blankets, cover the head

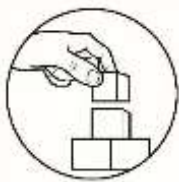


- drink warm (not hot) sugary drinks such as sports drinks. Avoid caffeinated beverages and alcohol.
- Cover all extremities completely
- Place warm objects, such as hot packs or water bottles on the victim's head, neck, chest and groin
- Handle the victim carefully. Sudden movement or rough handling can upset heart rhythms.
- Do not attempt to re-warm -- the victim should receive treatment in a hospital

EMERGENCY EQUIPMENT

First Aid Supplies and Facilities

The employer is responsible for providing first aid personnel with adequate equipment, supplies and facilities.



What's More

Matching type. Match the word being defined from column A to column B. Write your answer on the space provided.

- | | |
|----------------------------|--|
| _____ 1. Strains | A. Fracture that often require surgery |
| _____ 2. Partial Fracture | B. Hairline fracture |
| _____ 3. Complete fracture | C. Fracture that can be closed or open |
| _____ 4. Pelvic injury | D. A stretch or a partial tear of ligament |

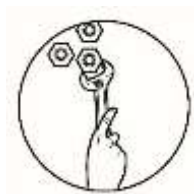
_____ 5. Compound fracture	E. incomplete break of a bone
_____ 6. Displaced fracture	F. Complete break of a bone causing it to be separated into two or more pieces
_____ 7. Sprains	G. Fracture of the neck of the femur within the hip joint
_____ 8. Stress fracture	H. Injuries to muscle or tendons due to overstretching
_____ 9. Hypothermia	I. A condition where an individual's body temperature is elevated beyond normal due.
_____ 10. Hyperthermia	J. A condition in which body temperature falls below 33°C.



What I Have Learned

- Fracture is a condition that changes the shape of the bone. It occurs due to the high force or impact put on a bone.
- There are 5 types of fracture: Compound fracture, Displaced fracture, partial fracture, Complete fracture and Stress fracture.
- A carefully done first aid in managing a fracture should be considered to avoid the worsening of the injury.
- If the person is unresponsive, has stopped breathing, or is gasping for air, CPR is advised.
- R.I.C.E is the treatment for sprains and strains. This means REST the injured part, wrap an ICEPACK, COMPRESSION by bandaging and ELEVATION by raising the injured part above heart level.
- Do not attempt to force a fracture or dislocation back into place – this could cause further injuries.
- It can be difficult for a first aider to tell whether the injury is a fracture, dislocation, sprain or strain. If in doubt, always treat the injury as a fracture.
- Heat exposure can be prevented in a work area if workers should be checked with the following; clothing, liquid intake, work schedule, acclimation and body weighing.
- If an individual's body temperature raises beyond the normal due, he has hyperthermia.

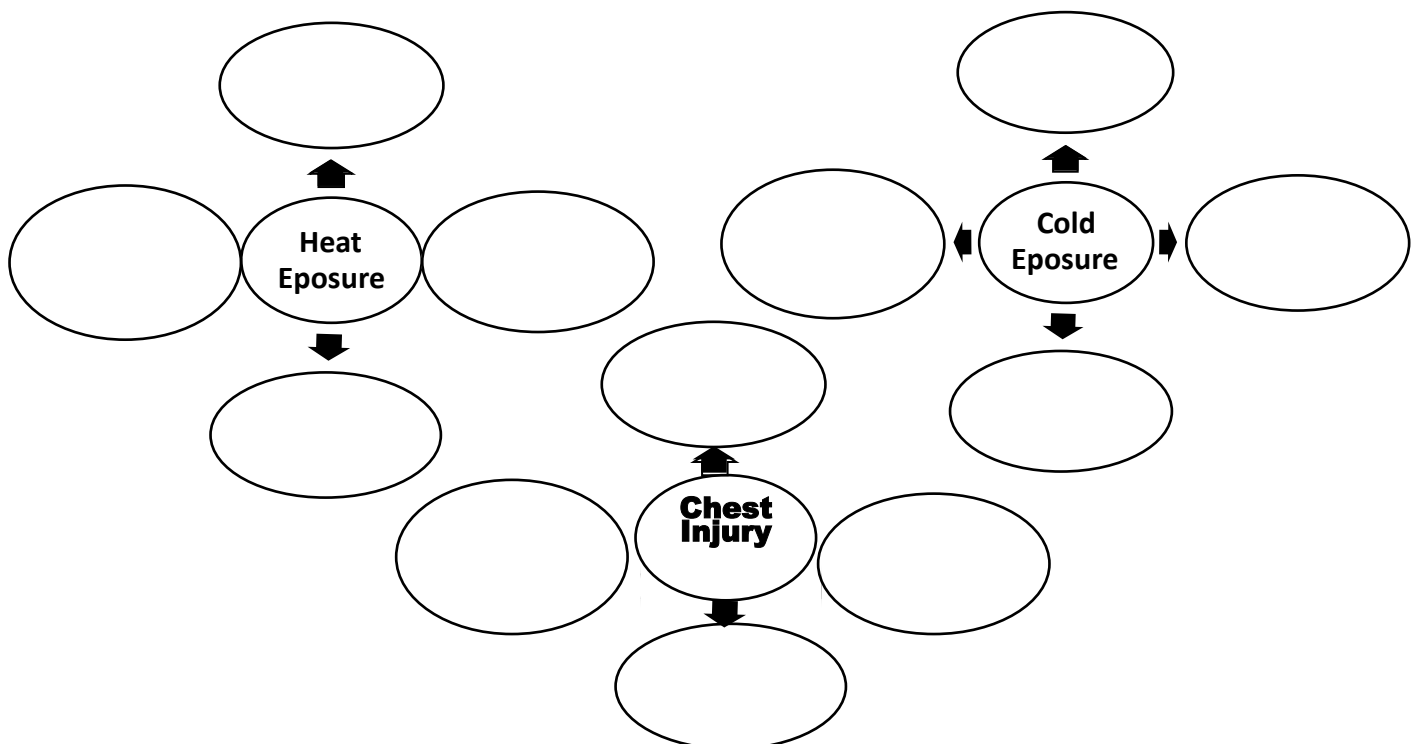
- This hyperthermia can be treated through sipping cool water, removing excess clothing, lying down and taking a cool bath. It could also be dealt by placing ice packs under the arms and groin.
- A condition where the body's temperature drops below 33°C is hypothermia.
- To treat this condition, a person should move to warm area, remove wet clothes, drink warm water and cover all the extremities completely. Then, place ice packs on the victim's head, neck, chest and groin.
- Employers should also provide first aid equipment, supplies and facilities to ensure safety and to avoid illness and accidents that could cause injury or worst death to their workers.
- In every emergency situation, presence of mind and calmness are needed in first aid.



What can I do

The following phrases are the factors in preventing heat exposure, cold exposure and what to do when having a chest injury. Write them in their appropriate bubble web.

keep body warm	avoid alcohol	drink plenty of water	wear gloves eat all meals
heavy work in the morning	wear loose-fitting clothes	checking body weight	
RICE	CPR	Stop Bleeding	Cover an open wound





Assessment

Choose the best answer of the following questions. Write your answer in a separate sheet.

1. What type of fracture that injures the neck of the femur within the hip joint?
A. Ankle injury B. Chest injury C. Pelvic injury D. Clavicle injury
2. What type of injury where R.I.C.E is applicable and can be administered?
A. Chest injury B. Sprain C. Fracture D. Burn
3. Which condition changes the contour of the bone?
A. Fracture B. Burn C. Wound D. Sprain
4. Which of the following injury likely needs CPR?
A. Strain B. Chest injury C. Sprain D. Burn
5. How often can we apply an icepack on a strain or sprain?
A. Every hour B. 3 hours straight C. 5 to 10 times a day
D. 4 to 8 times a day
6. Which statement is not true to manage fracture or dislocation?
A. Pull the affected area
B. Ask patient to move
C. Immobilize fracture
D. Put a cast on it
7. In the following statements, who is suffering from fracture?
A. Mark having difficulty to move normally
B. Kevin fanning himself rigorously
C. Dave running cool water in his wound
D. Josie having difficulty in breathing
8. It is sometimes called a “hairline fracture”
A. Displaced B. Strain C. Partial D. Stress
9. The following are signs and symptoms of hip and pelvic injury EXCEPT:
A. Nausea, faintness or giddiness
B. Signs of shock from internal bleeding
C. Tenderness
D. Vomiting and lack of balance
10. Wearing gloves is good for preventing _____ exposure.
A. Germs B. Heat C. Cold D. Virus

11. It is a condition where the body's temperature elevated beyond the normal due.
A. Hyperthermia B. Hypothermia C. Low fever D. Hypoglycemia
12. Which of the following steps is good for treating hypothermia?
A. Taking a cold shower B. Removing excess clothing
C. Drinking alcohol beverages D. Drinking warm water
13. Which of the following statements do not prevent accident in the work place?
A. Post proper signage B. No proper training
C. Report dangers and accidents D. Keep danger reports
14. Which of these materials help in treating hyperthermia?
A. Ice packs B. Socks C. Jackets D. Snow boots



Additional Activities

Guess the missing word by using the given clue.

1. _ h _ _ _ _ _ _ _ _ _ r _

Can be found inside the first aid kit

2. _ l _ _ _ h _ _

Drink that should be avoided

3. _ c _ _ _ _ _ _ _ _ t _

Event that should be reported

4. _ l _ _ v _ _ _

Hand cover

5. _ _ _ _ k _ _ _ _ _ _ e _

Place that should be kept clean

6. _ o _ _ _ _ _ _ _ _ u _

Responsive person

7. _ n _ _ _ _ _ _ _ _ _ i _

Used for cleaning insect bite

8. _ y _ _ _ _ _ _ _ _ e _ m _ _

Body temperature drop

9. H _ p _ _ _ _ m _ a

Body temperature elevated beyond normal.

10. _ O _ D

A temperature that is relatively low for human



Answer Key

Assessment	1. B 2. B 3. A 4. B 5. D 6. A 7. C 8. D 9. A 10. C 11. C 12. A 13. D 14. B 15. A
What's More	1. H 2. E 3. F 4. G 5. C 6. A 7. D 8. B 9. J 10. I
What I Know	1. C 2. A 3. D 4. D 5. A 6. C 7. D 8. B 9. B 10. A

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