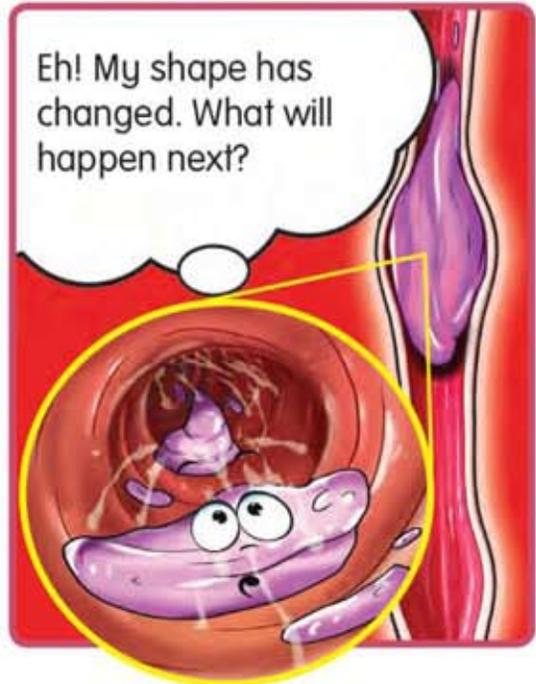
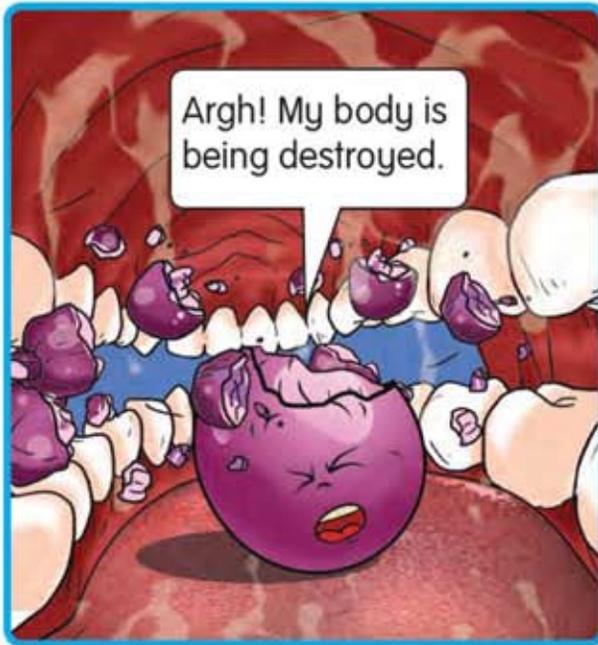
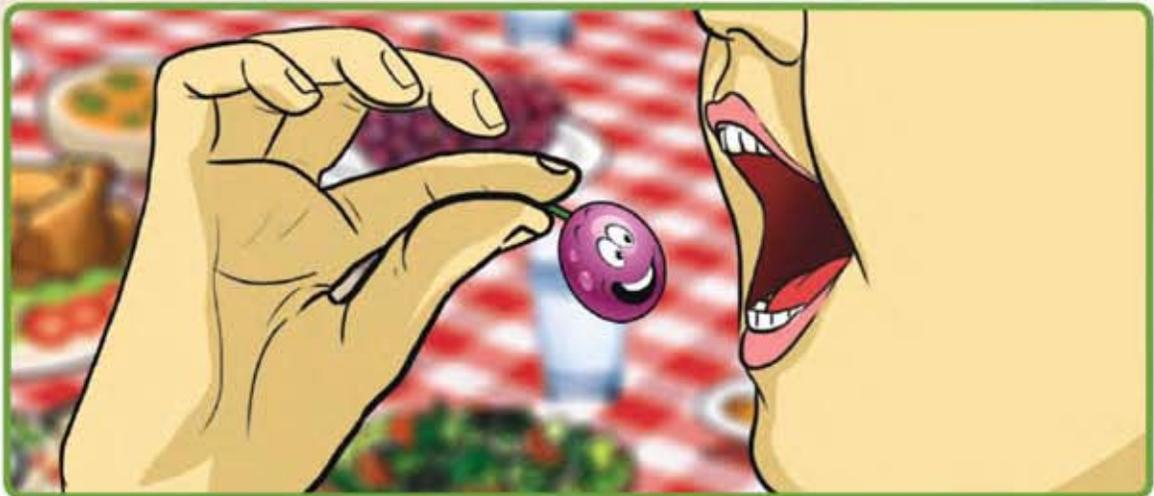


Kina is eating a grape. What will happen to the grape?



How does the shape of the grape change?

Types of Teeth and Their Functions

We have three types of teeth. Let us find out about these teeth and their functions.



canines



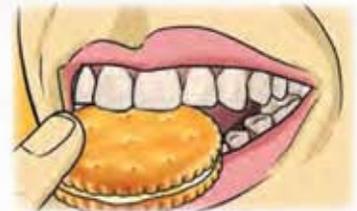
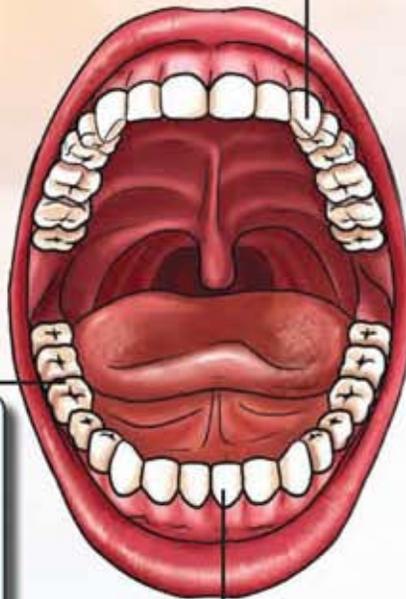
Function:
to tear food



molars



Function:
to grind food



incisors



Function:
to cut food

Let's Get to Know Our Teeth Song

Our incisors to chop and cut,
Our canines to tear apart,
Our molars to grind the food,
We use all of them to chew our food.

Every little tooth helps us to talk,
And make our smile so cute and sweet,
These are the functions of our teeth.

(To the tune of Papaku Pulang)

Ngap, ngap, ngap, ngap, ngap,
Ngap, ngap, ngap, ngap



Activity Book
Pages:

17-19



3.1.1



Fun Activity Knowing the Functions of the Teeth



Apparatus and Materials

- plastic ruler
- pencil
- bottle
- tile
- a piece of mustard leaf stalk

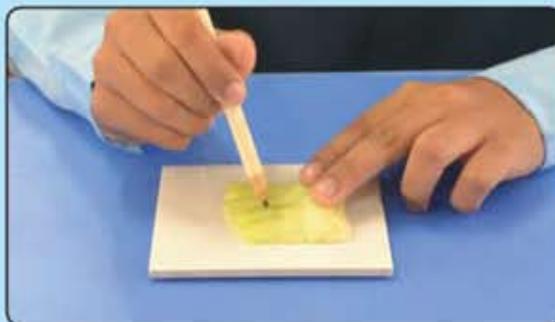
Steps

1.



Cut the mustard leaf stalk using a plastic ruler. Observe the result.

2.



Using a pencil, pierce the mustard leaf stalk. Then, **tear** it apart. Observe the result.

3.



Grind the mustard leaf stalk using a bottle until it is ground. Observe the result.

Questions

1. What do the ruler, pencil, and bottle represent?
2. Based on the activity, describe the function of each type of teeth.

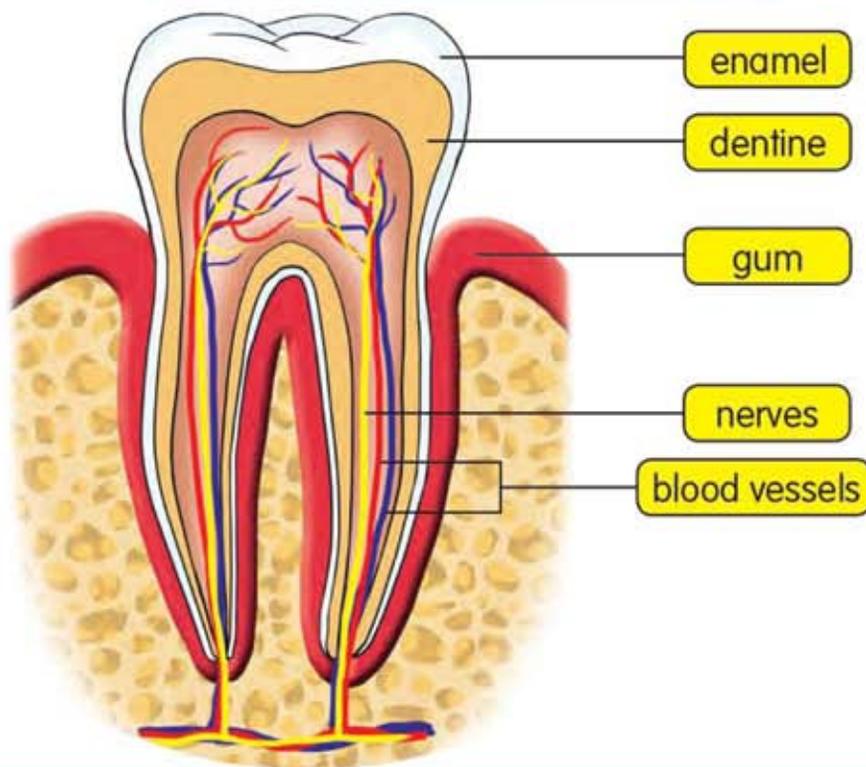
Structure of a Tooth

Aishah is observing her teeth in a mirror.



If we take a cross section of a tooth, what can we observe?
Let us look at the structure of a tooth below.

Cross Section of a Tooth





Fun Activity

Labelling the Structure of a Tooth



Apparatus and Materials

- plastic ruler
- rolling pin
- red, blue, and yellow threads



- a piece of a plastic bottle



- white, yellow, and red clay

Steps

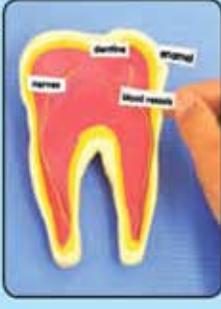
1.  Flatten the white and yellow clay using the rolling pin.

2.  Put the flattened white clay and then the yellow clay into the piece of a plastic bottle. Press them together.

3.  Shape the red clay into a letter 'U' and put it on top of the flattened yellow clay.

4.  Wrap the U-shaped red clay with the flattened yellow and white clay.

5.  Cut the tooth model in half using the plastic ruler.

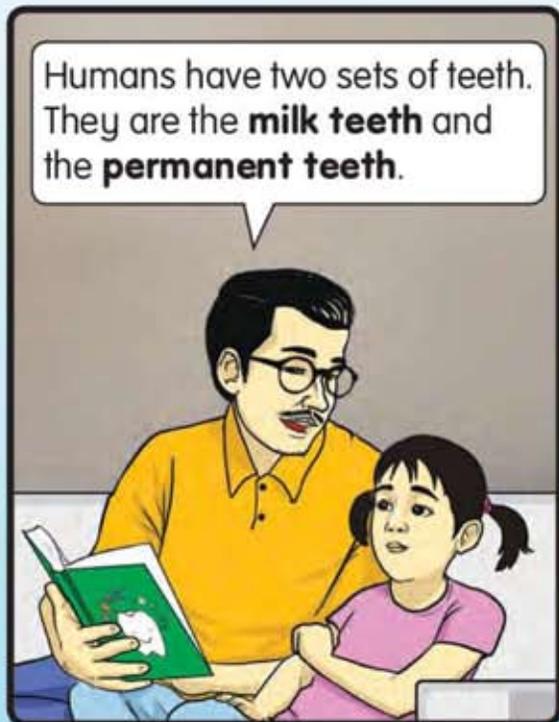
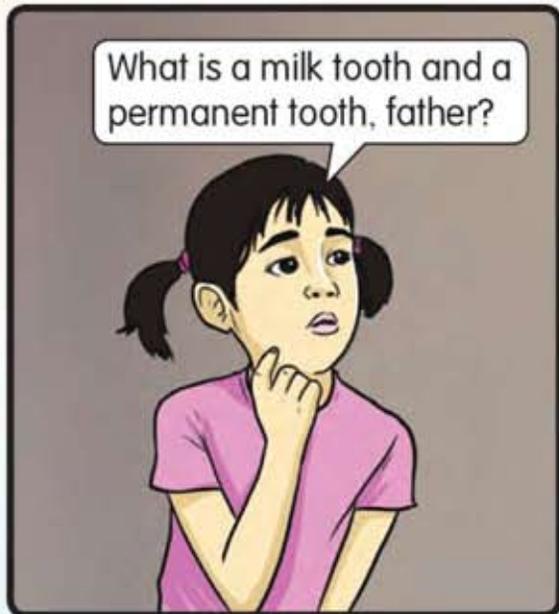
6.  On the cross section of the tooth model, place red and blue threads for the blood vessels, and yellow thread as the nerves. Label all of them.

Question

Based on the activity above, which structure is missing from the tooth model?

Milk Teeth and Permanent Teeth

Let us observe the situation below.



Milk Teeth Set and Permanent Teeth Set



Milk Teeth Set

There are 20 teeth, which are:

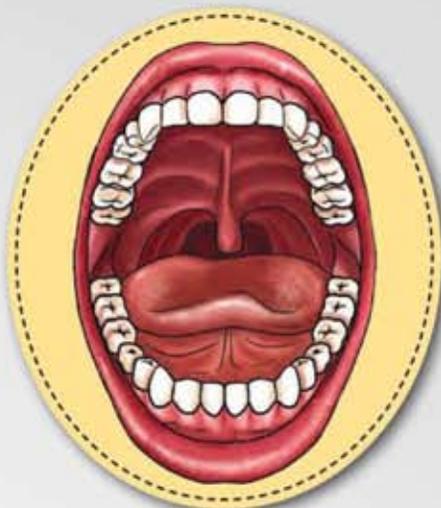
- 8 incisors
- 4 canines
- 8 molars

Thin layers of enamel and dentine.

Teeth are smaller and not strong.

Teeth are not permanent and have a short life span.

Milk teeth start to grow at 6 months old and are complete at 3 years old.



Permanent Teeth Set

There are 32 teeth, which are:

- 8 incisors
- 4 canines
- 20 molars

Thick layers of enamel and dentine.

Teeth are bigger and stronger.

Teeth are permanent and have a long life span.

Permanent teeth start to grow at 6 years old and are complete at 21 years old.

Both sets have the same types of teeth, which are incisors, canines, and molars.



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Fun Activity

Compare and Contrast between Milk Teeth and Permanent Teeth

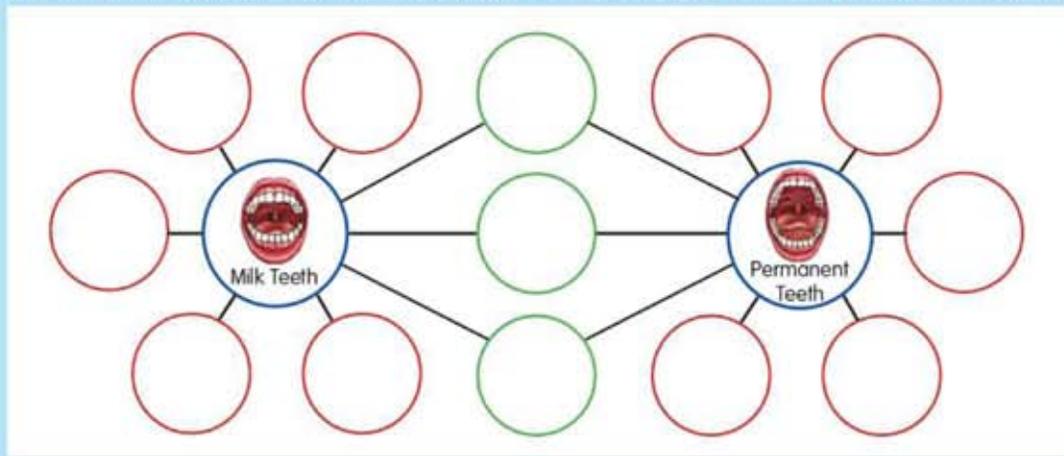


Apparatus and Materials

- glue
- A4 paper
- pictures of milk teeth and permanent teeth
- scissors
- marker pens

Steps

1. In pairs, each pupil finds information about a different set of teeth.
2. Compare the information about the sets of teeth with his/her partner.
3. Identify the differences and similarities between the milk teeth set and the permanent teeth set.
4. Produce a double bubble map about both sets of teeth as shown below.



5. Present the double bubble map in front of the class.

Question

Do both sets of teeth have the same structure?



HOTS

What would happen if humans had a milk teeth set only?

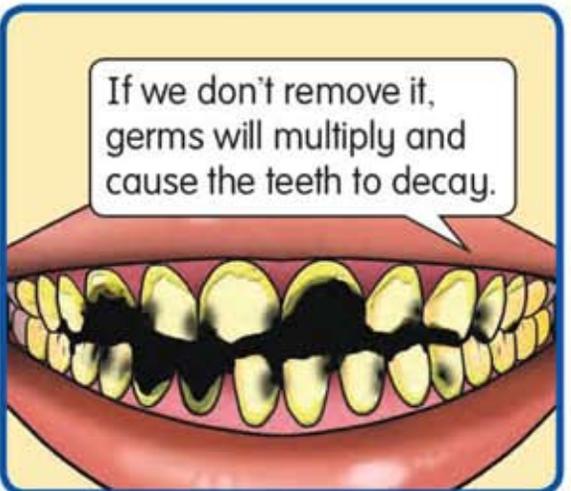
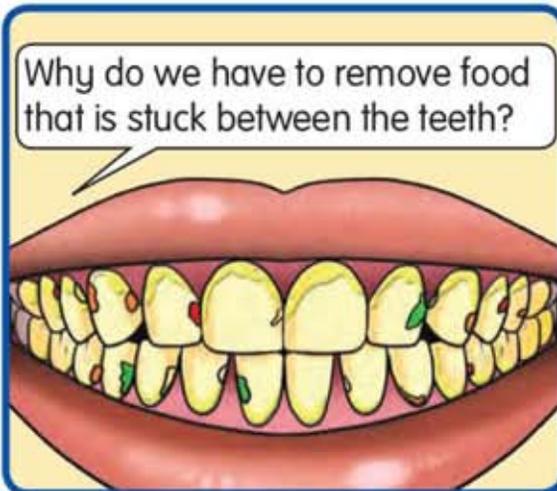
TEACHER'S NOTES

- The activity above is carried out using the Think-Pair-Share method of the 21st Century Learning Skills

3.1.3
3.1.5

Dental Care

Lim and his brother have just finished their lunch.





To floss your teeth, put the floss between your teeth and move it back and forth repeatedly to remove the food that is stuck.



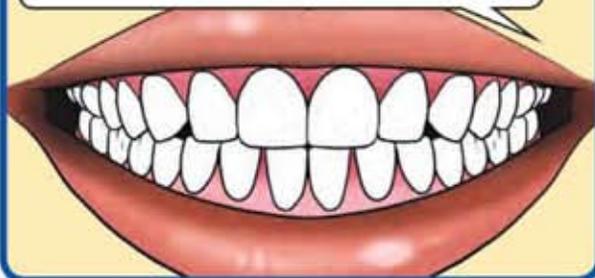
If you always eat sweet food and don't clean your teeth, the teeth will decay.



We should go to the dentist for a check-up once every six months.



If we practise good dental care, our teeth will be healthy and beautiful.



Why is daily dental care important to us? Can you explain? There are many dental care technologies that are available, such as:



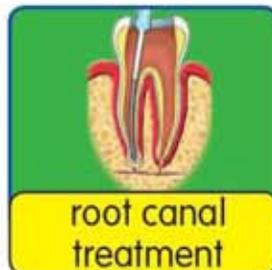
fillings



braces



dentures



root canal treatment

Find out more about these technologies and present them creatively to the class.



Fun Activity

It's Easy to Clean Our Teeth

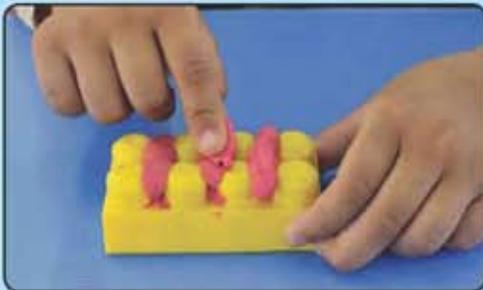


Apparatus and Materials

- toy brick
- thread
- clay
- toothbrush

Steps

1.



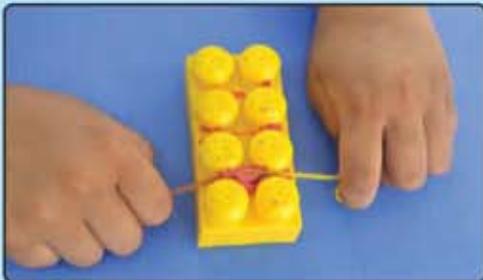
Put clay between the studs of the toy brick.

2.



Use a toothbrush to remove the clay between the studs. Can you remove all of the clay? Why?

3.



Put the thread between the studs and move it back and forth repeatedly. Can you remove all of the clay? Why?

Questions

1. What do the toy brick, clay, and thread represent?
2. Why must we floss and brush our teeth every day?

Classes of Food

Food can be classified into seven groups which are carbohydrate, protein, fats, minerals, vitamins, fibre, and water.



Can you give other examples for each class of food?





Fun Activity

Classifying Food



Apparatus and Materials

- mahjong paper
- A4 paper
- marker pen



- seven pictures of different meals

Steps



1. Each group receives a picture of a meal.



2. Identify the class of each type of food in the meal.



3. Build a tree map of Classes of Food on the mahjong paper.



4. Display the work to the class.

Question

Which class of food have you identified the most?

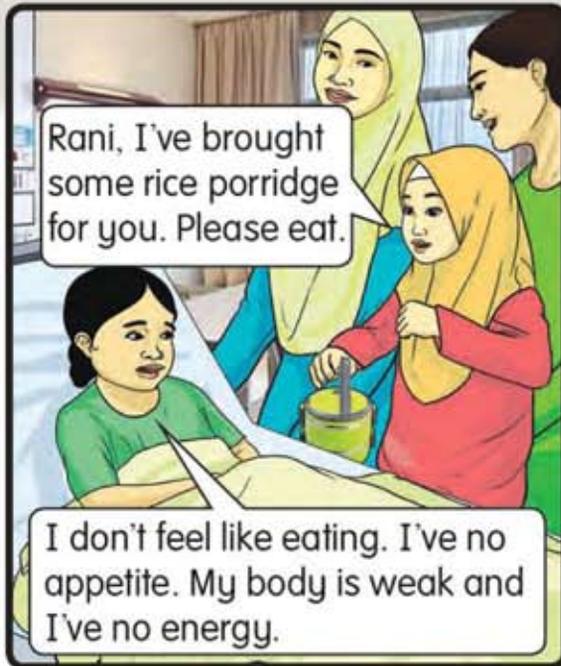


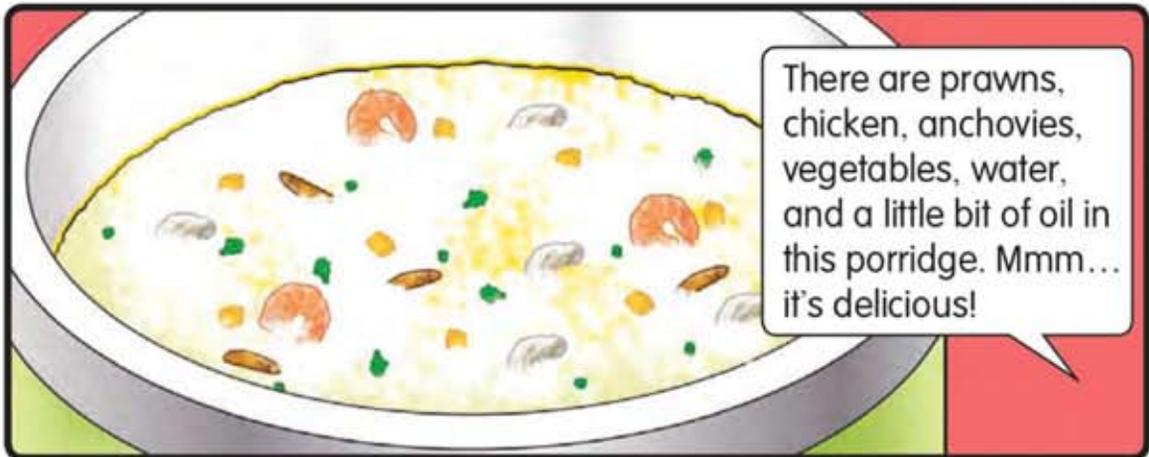
TEACHER'S NOTES

- The activity above is carried out using the Gallery Walk of the 21st Century Learning Skills.
- Teachers should choose meals that include all the seven classes of food.

The Importance of My Food

Aishah visits Rani at the hospital.





Each class of food is important for our bodies as it helps us to stay healthy.

THE IMPORTANCE OF FOOD

<p>Protein</p> <p>For growth</p>	<p>Carbohydrate</p> <p>Provides energy</p>	<p>Vitamins</p> <p>Keep us healthy</p>	<p>Minerals</p> <p>Keep us healthy</p>
<p>Fats</p> <p>Warm the body</p>	<p>Water</p> <p>Regulates body temperature</p>	<p>Fibre</p> <p>Prevents constipation</p>	

How does the porridge help Rani to get well again? Explain.

A Balanced Diet

How can we make sure that the meal we eat is balanced?

We can make sure that the meal we eat is balanced by following the Malaysian Food Pyramid.



Malaysian Food Pyramid

Level 4: Eat Less

(fat, oil, salt, and sugar)



Level 3: Eat in Moderation

(fish, poultry, meat, legumes, milk, and dairy products)



Level 2: Eat Plenty

(fruits and vegetables)



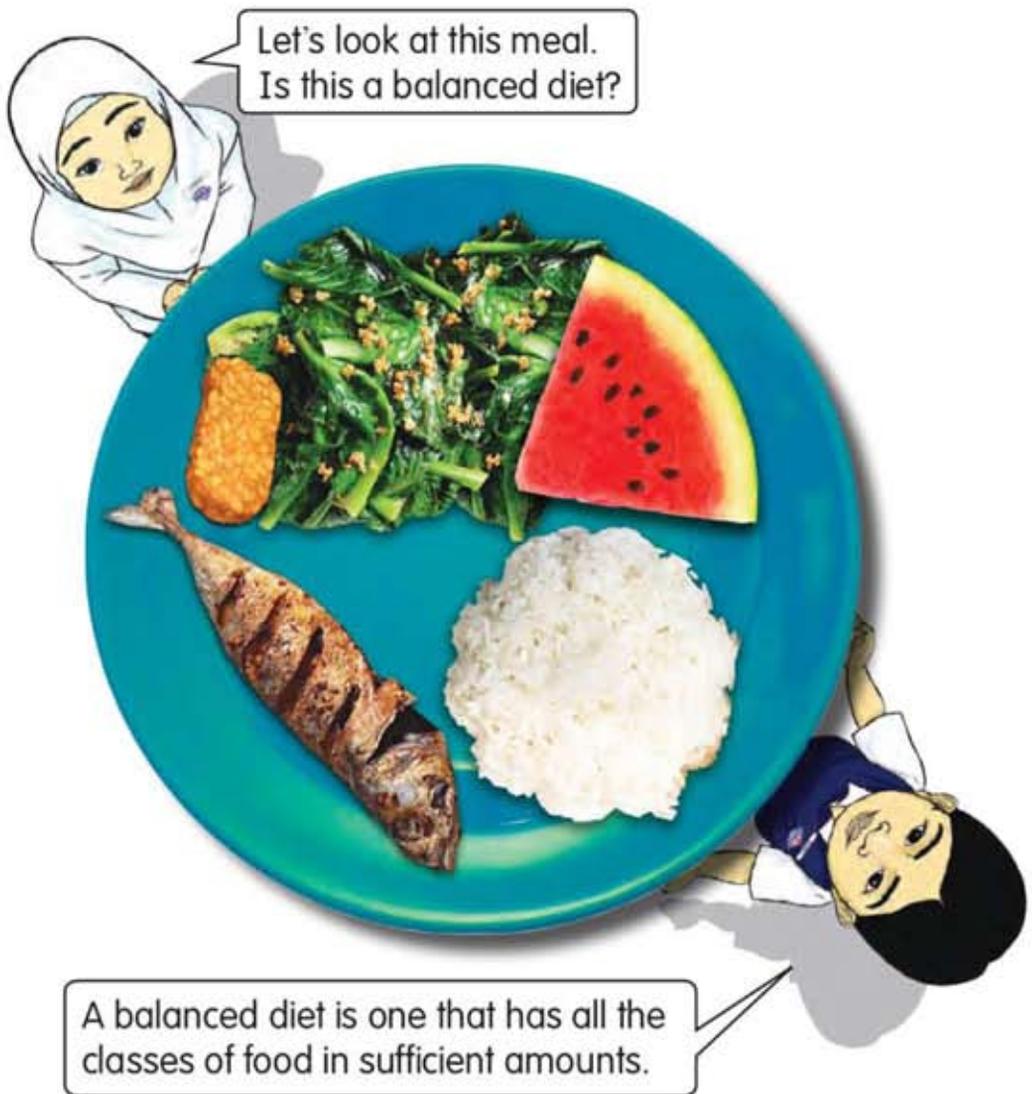
Level 1: Eat Adequately

(rice, noodles, cereal, cereal products, and tubers)



(Source: Ministry of Health Malaysia)

3.2.3



Based on the Malaysian Food Pyramid, plan a balanced meal and explain it.

TEACHER'S NOTES

- The consumption of a balanced diet depends on gender, age, size of body, environment, level of health, and physical activity.

Activity Book
Page:
30

45
KPM

The teacher's notes section features a male teacher character with glasses, wearing a light green shirt and a red tie. He is standing in front of a chalkboard. The chalkboard contains the text 'TEACHER'S NOTES' and a bullet point. To the right of the chalkboard is a small sign that says 'Activity Book Page: 30'. In the bottom right corner, there is a logo with the number '45' and the letters 'KPM'.



Apparatus and Materials

- manila cardboard
- marker pen
- scissors  Caution
- glue



- supermarket flyers

Steps



1. Draw the shape of a pyramid on the manila cardboard.



2. Each member of the group selects a level from the Food Pyramid and cuts out relevant pictures of food from the flyers. Then, paste the pictures onto the pyramid.



3. Plan a meal that can be cooked with the food in the Food Pyramid.



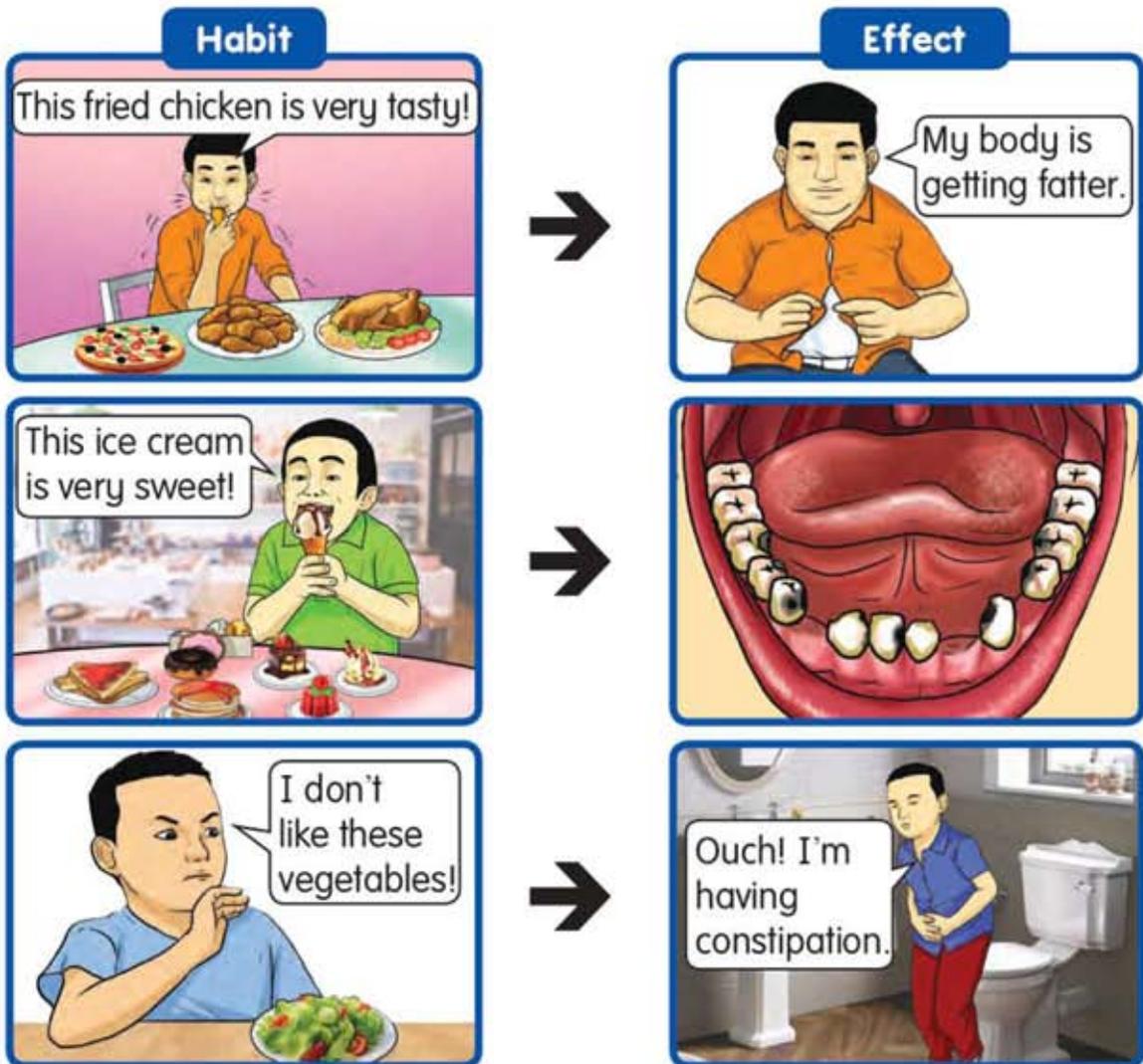
4. Present your work in front of the class.

Question

What meal do you plan to cook? Why?

The Effects of an Imbalanced Diet

Observe the situations below.



What are the effects of an imbalanced diet on the people who do not eat properly in the situations above?

Eating imbalanced meals can cause health problems. Therefore, we should plan the food we are going to eat based on the Malaysian Food Pyramid.



Fun Activity

A Health Brochure



Apparatus and Materials

- A4 paper
- stationery

Steps

1.



Get information from various sources about the food we should avoid to prevent obesity.

2.



Based on your creativity, produce a health brochure using the information you have found.

3.



Present the health brochure in front of the class.

Question

If you were a doctor, what advice would you give to an obese patient about his/her eating habits?

The Digestion Process

An evening in Rani's kitchen.

This is so tasty! How does this hard biscuit become soft enough for me to swallow?

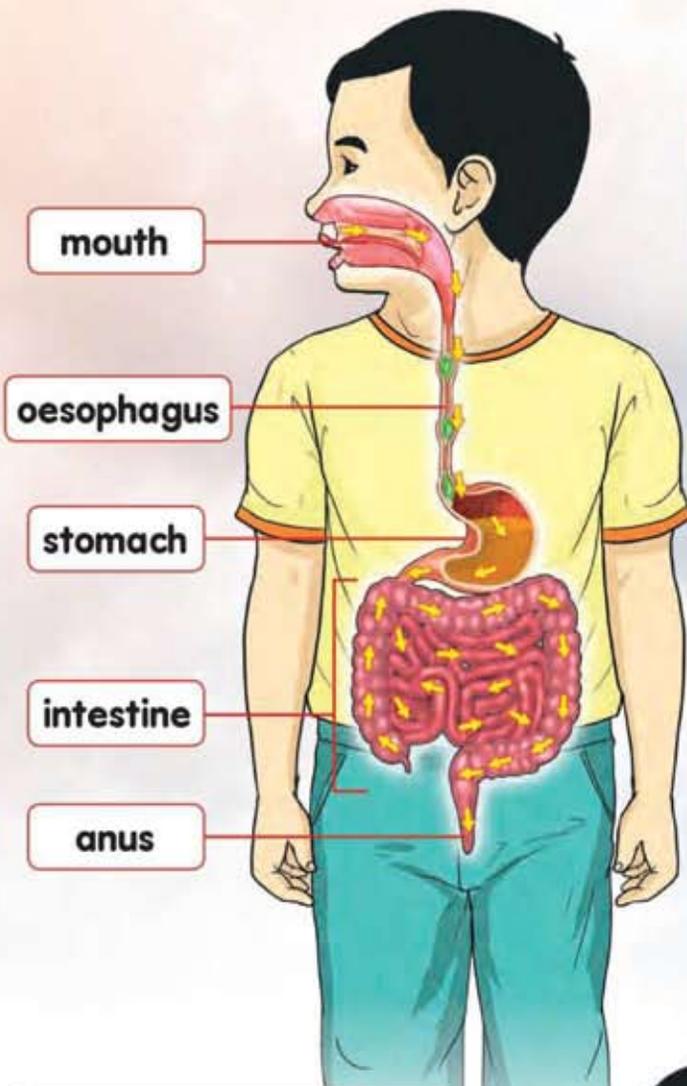
I've been broken down into small pieces by the teeth. The tongue and saliva make me soft and easy to be swallowed.

How is food broken down in our mouths?

3.3.1

The Flow of Food

The food that we eat will go through several parts of our body. Look at the diagram below.



Digestion Process Song

The digestion process,
Starts from the mouth,
We use our tongue and teeth,
And saliva too.

Chew and grind the food,
Until we can swallow,
Go through the oesophagus,
And to the stomach it goes.

From the stomach it slides,
Through the intestine,
And undigested food,
Exits through the anus.

(To the tune of
Anak Itik Tok Wi)

Based on the song above, state the flow of food during the digestion process.





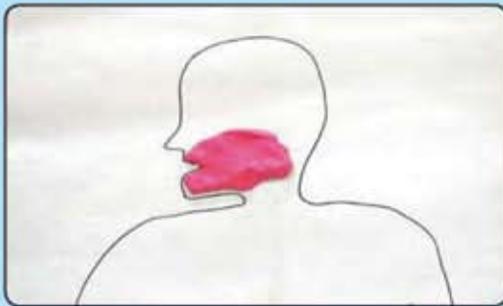
Fun Activity Knowing the Digestive Parts



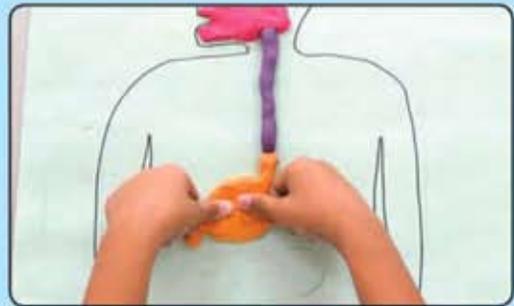
Apparatus and Materials

- clay of five different colours
- manila cardboard
- marker pen

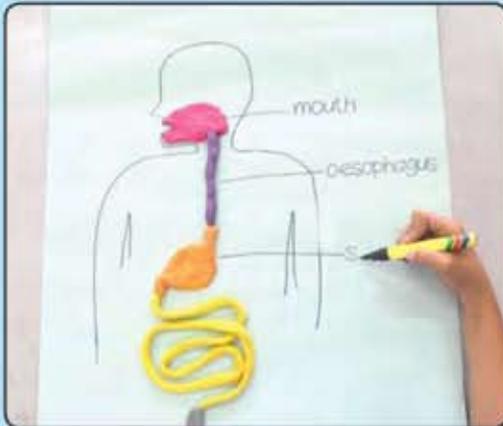
Steps



1. Form a digestive part using the clay.



2. Repeat step 1 using different coloured clay to form other digestive parts.



3. Label each digestive part using the marker pen.



4. Describe the digestive part model to your class.

Question

What is the flow of food inside our body during the digestion process?



TEACHER'S NOTES

- Teachers should sketch the shape of the human body on the manila cardboard.

Activity Book
Page.

34

Food Digestion

Let us continue the story about the grape that changed shape after being chewed and swallowed.

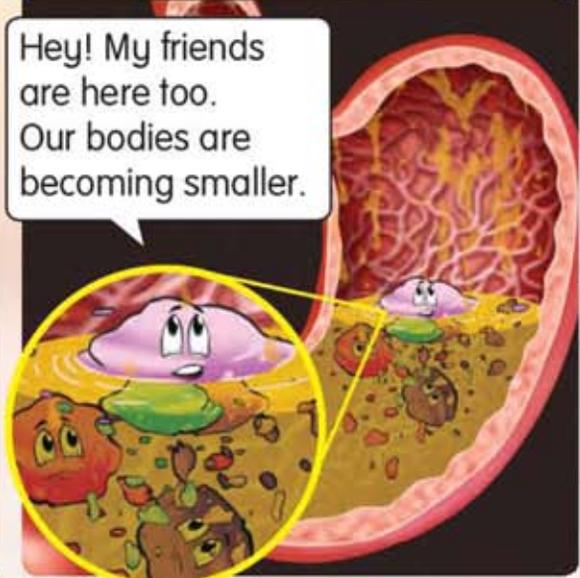
In the oesophagus

This passage is very narrow. Where will I be taken next?



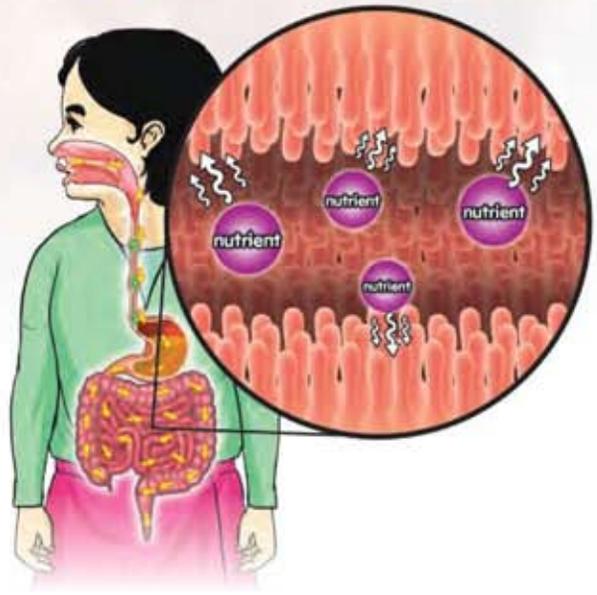
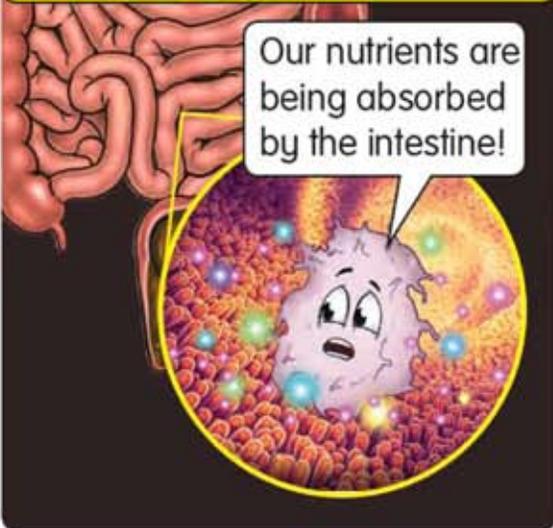
In the stomach

Hey! My friends are here too. Our bodies are becoming smaller.



In the intestine

Our nutrients are being absorbed by the intestine!

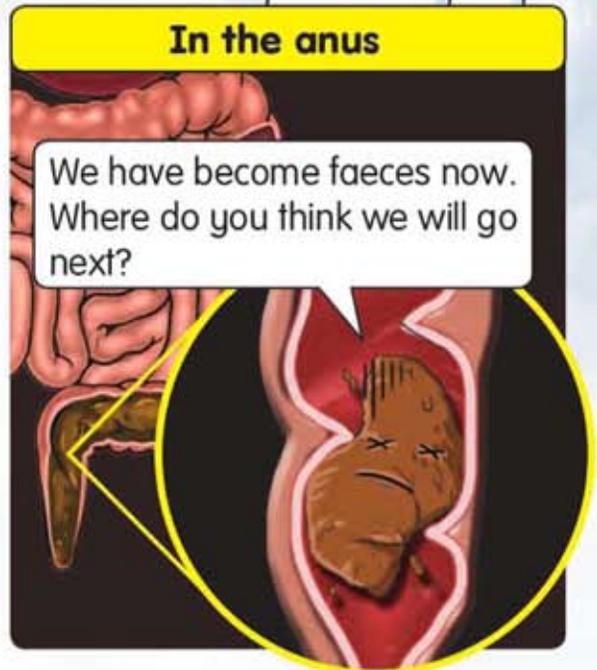
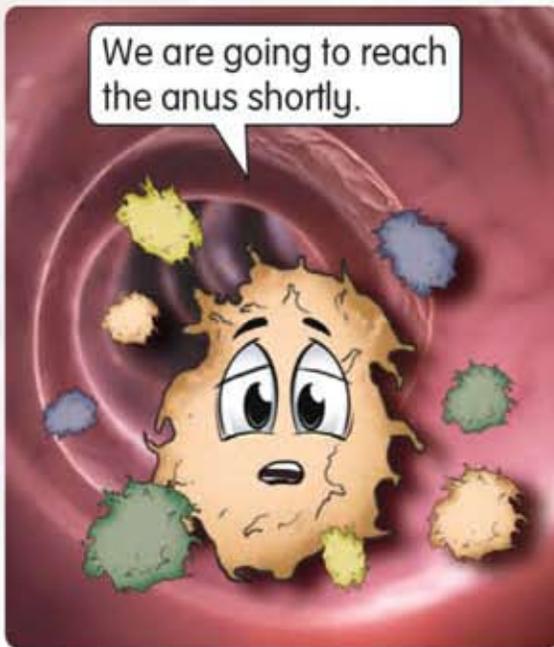


What happens to the grape and the other food?

Will all the digested food in the food flow be absorbed by the body?



Let us continue with the story.



What is your conclusion about the situation of the food that was eaten in the story?

Digestion is a process of breaking down food into smaller pieces so that its **nutrients** can be absorbed while moving through the food flow in the body.

TEACHER'S NOTES

- Faeces is also known as stool.

Activity Book
Pages:

33, 35

Actions that Disrupt Digestion

Observe the situations below.



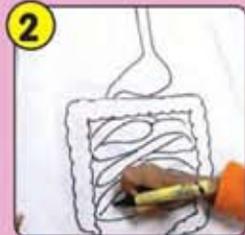
Can you describe the actions and their effects on the digestion process based on the situations above?



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3.3.4



Steps

Creatively decorate an apron or a T-shirt with drawings of digestive parts using a colouring set.



Let's Remember

1. There are three types of teeth:



Incisors to cut food

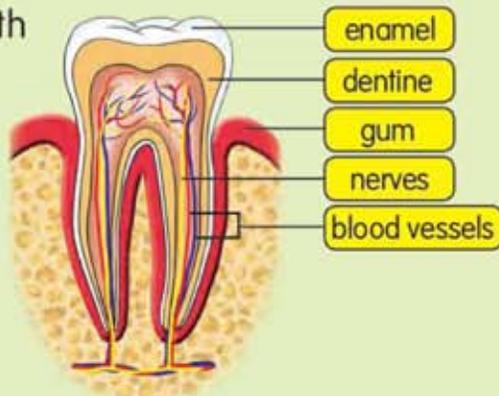


Canines to tear food



Molars to grind food

2. The structure of a tooth consists of:



3. Compare and contrast between the milk teeth and permanent teeth sets:

Milk Teeth Set	Permanent Teeth Set
20 teeth, which are: <ul style="list-style-type: none"> • 8 incisors • 4 canines • 8 molars 	32 teeth, which are: <ul style="list-style-type: none"> • 8 incisors • 4 canines • 20 molars
The layers of enamel and dentine are thin.	The layers of enamel and dentine are thick.
The teeth are smaller and not strong.	The teeth are bigger and stronger.
The teeth are not permanent. They have a short life span.	The teeth are permanent. They have a long life span.
Start to grow at 6 months old and will be complete at 3 years old.	Start to grow at 6 years old and will be complete at 21 years old.
Both sets have the same types of teeth which are incisors, canines, and molars.	

4. Dental care should be practised by everyone to keep teeth healthy and to avoid tooth decay.
5. Examples of dental treatments are fillings, braces, dentures, and root canal treatment.
6. There are seven classes of food, which are:

Food Class	Function
Carbohydrate	Provides energy
Protein	For growth
Fats	Warm the body
Vitamins	Keep the body healthy
Minerals	
Fibre	Prevents constipation
Water	Regulates body temperature

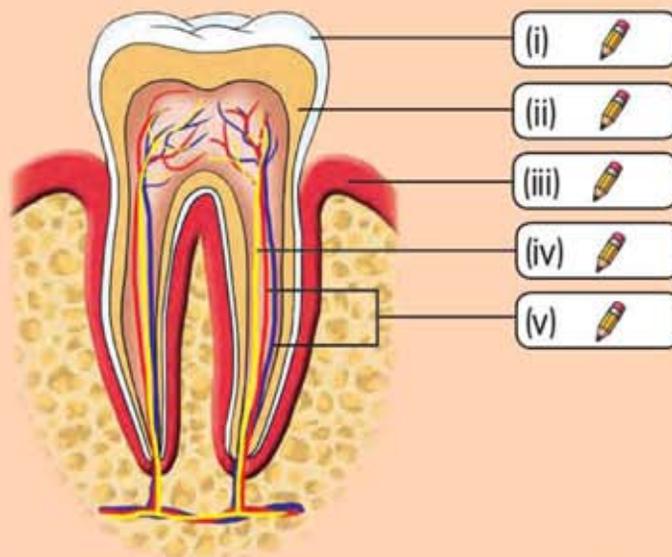
7. A balanced diet is one that includes all the seven classes of food based on the Malaysian Food Pyramid.
8. Digestion is the process of breaking down food into smaller pieces so that its nutrients can be absorbed by the body.

9. The food flow in the digestion process starts at the mouth, through the oesophagus, towards the stomach and intestine, and ends at the anus.
10. Actions that disrupt the digestion process can cause choking, vomiting, and stomach ache.

? Let's Answer

Answer all the questions in the Science exercise book.

1. Name the types of teeth and describe their functions.
2. Label the structures of a tooth below.



3. State the differences and similarities between the milk teeth set and the permanent teeth set.
4. After eating, food may be stuck between the teeth. What are the ways to remove it?
5. Give an example of food from the protein and carbohydrate classes.
6. What is the importance of fats to our body?
7. Tick (✓) the food that provides vitamins.

Cereals Anchovies

Papaya Tomatoes

8. *Nasi lemak* is an example of a Malaysian breakfast meal.

(i) Is it healthy?

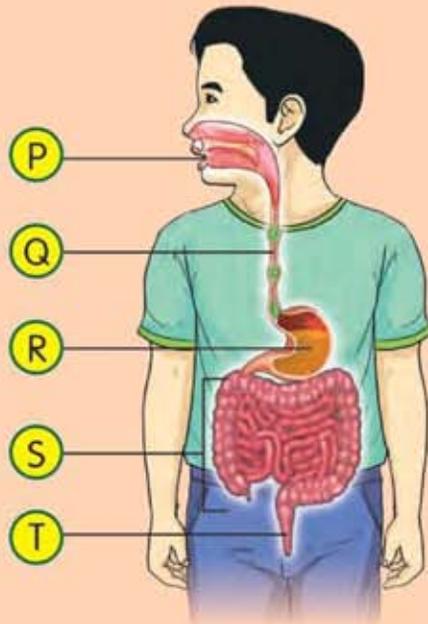
Yes No

(ii) Give your reasons.

9. What is the importance of a balanced diet to our bodies?

10. What is the meaning of the digestion process?

11. What are the parts labelled P, Q, R, S, and T?



12. What will happen to digested food not needed by the body?

13. The following statements are all actions that disrupt the digestion process, except:

- (i) eating while jumping.
- (ii) eating in the park.
- (iii) eating while laughing.
- (iv) eating late at night.



HOTS

Based on the Malaysian Food Pyramid, why are the amounts of food consumption different at each level?