

HEALTHY AND SUSTAINABLE LIFESTYLE

Ages 4 to 7 (Level 1)

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Description:	Learners will be introduced to recommendations on how to
	maintain physical and mental health, and then will be asked to try
	them out and monitor how they feel along the way
Leading question:	Is my family leading a healthy and sustainable lifestyle?
Learning outcomes:	Gives reasons to explain the the importance of eating well,
	exercising, and sleeping well in keeping good health
	Practicing good sleeping and eating habits
	Understanding the importance of good mental health
	Able to tell time correctly to the nearest 5 minutes
	Able to collect data and represent it in tables and graphs
	Understanding and calculating the average
Age group:	4-7
Subjects:	Math, Science (health)
Required previous learning:	Addition and simple division (for some of the exercises)
Total time required:	~7 hours over 8 days
Self-guided / Supervised activity:	Self guided over the first 3 days
Resources required:	Paper and pencil
Topics/concepts covered and	Health, Exercise, Mental Health, Physical Health, Sleep, Data
skills developed	Collection, Measuring time
Inspiration:	o 20 Essential life lessons we learned from Mister Rogers
	 The iEARN project: <u>Staying Healthyhttps://oldwayspt.org/</u>

Day	Time	Activity and Description
1	10 minutes	Introduction: -In this project, we will look at how we can keep good health for our body and mindBody health requires eating well, exercising, and sleeping wellTo take care of our mind, we need to be optimistic, grateful, and talk to people we trust to calm down if we are afraid or worried about something.
	15 minutes	 Sleeping habits Ask the learners how many hours they slept last night? Ask them if they felt that it was enough. Listen to a few answers.



- Tell them that, for their age group, doctors recommended between 10 and 12 hours, preferably going to bed before 8:00 pm)
- Ask them: Did you sleep last night a number of hours within the recommended range?
- Do you think that, throughout the week, you sleep enough hours? How can you know that?

Ask learners to draw on a piece of paper a weekly log of their sleeping time. Here's one example of how that log can look like:

Day	time I went to bed	time I woke up	How much time I slept
Monday	7:45		Siept
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

40 minutes

Is there anything else that you want to include?

To calculate the time you have slept, here is an example:

You went to bed at morning.



in the evening, and woke up at



in the

How many hours have you slept?

First let us tell the time on both clocks, and then we can calculate the hours slept. So, you went to bed at 7:00 in the evening, and woke up at 5:30 the next morning.

Let's count how many hours you have slept:

Starting with 7 in your head, count as you do usually, except that once you reach 12 you must start with 1 again.

So, we have 7 in the head, we start counting: 8, 9, 10, 11, 12, 1, 2, 3, 4, 5, and a half

So you have slept 10 ½ hours (Ten and a half hours).

Learners work on the Tell the time Worksheet, and then show their answers to parents.

Criteria: Learners are able to tell the time correctly to the nearest 5 minutes.

Hang it on the wall in your bedroom to note down the data on it everyday. Note: a parent might help with the spelling and reading the time, but it is preferred that the learner fills all required data into the table.

- *Once you have the data filled for 1 whole week, you will reflect on the following questions:
- Are you getting enough sleep every night (between 10 and 12 hours)?
- Are you going to sleep before 8 pm every night?
- What do you need to do to make sure you go to bed before 8 pm and have 10-12 hours every night?

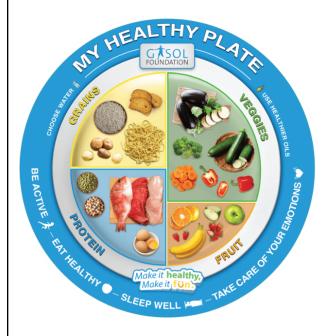
In case some of the reasons for you not going to bed before 8 pm are beyond your control e.g late supper time, you should plan to have a conversation with the responsible family member and give reasons why you need to sleep before 8 pm.

30 minutes

Eating habits

My Healthy Plate

My Healthy Plate is a friendly easy-to-understand visual guide for creating balanced and healthy meals. It shows you what to eat in the right amounts for each meal, so that you can practice good eating habits.



Source: https://www.gasolfoundation.org/downloadable-healthy-plate/

Think about the food you ate yesterday and categorize it under the four food types below: grains, vegetables (veggies), fruits and proteins.

Record your findings in the table below.

Note: A family member might help with the food type, but it is preferred that the learner fills all required data into the table.

Food type	Food you ate yesterday
Grains	
Fruits	
Proteins	
Vegetables	

Compare the type of food you ate yesterday (you have indicated in the table) to the proportions shown in the My Healthy Plate above*:

- ¼ Grains (bread, rice, pasta, ...)
- ¼ Protein (beans, fish, eggs, meat)
- A little more than ¼ Vegetables
- A little less than a ¼ fruits
- Use healthy oils with the food



1/4

one quarter is one of 4 similar parts

*It is worth mentioning that traditional ways of eating are also a good guide to good food and good health. The above is just a universal suggestion of a healthy diet. See examples of <u>Irraditional Diets</u> adapted from https://oldwayspt.org/

The learner should share and discuss the findings with the family

The discussion should include:

- The importance of eating balanced and healthy meals
- To what extent was your food intake as balanced as recommended by experts in the My Healthy Plate above.

Drinking water

The human body is about 60% water. The body constantly loses water throughout the day mostly through urine, sweat and from regular body functions like breathing. To prevent dehydration, you need to drink a lot of water even if you are not thirsty. Health experts recommend:

- 5 glasses (1 liter) for 5 to 8 year olds
- 7 glasses (1.5 liters) for 9 to 12 year olds

		• 8 to 10 glas	ses (2 liters) for 13+	- years		
		Do you usually drink as much as recommended daily?				
		Draw a table like the one below to monitor your daily eating habits.				
		In the first column, answer with a Yes or No.				
		In the second column, draw a glass of water every time you drink one.				
		Day	Was my food intake balanced as in the Healthy Plate diagram?	Glasses of water I drank		
		Monday				
		Tuesday				
		Wednesday				
		Thursday				
		Friday				
		Saturday				
		Sunday				
		discuss the below q	uestions: he total number of nk enough water ev ou need to do to imp more health nouris	prove your eating and drinking water h	abits to	
2	15 minutes	 Recall at least 3 words. You may 	also draw a repres	grateful for. Express each in one or mo	ore	
		☐ Physical Wo	orkout			



From the World Health Organization (WHO):

- 1. Children and youth aged 5–17 should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily.
- 2. Amounts of physical activity greater than 60 minutes provide additional health benefits.
- 3. Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least 3 times per week.

Source: WHO-<u>Global Recommendations on Physical Activity for Health;</u> https://www.who.int/dietphysicalactivity/global-PA-recs-2010.pdf

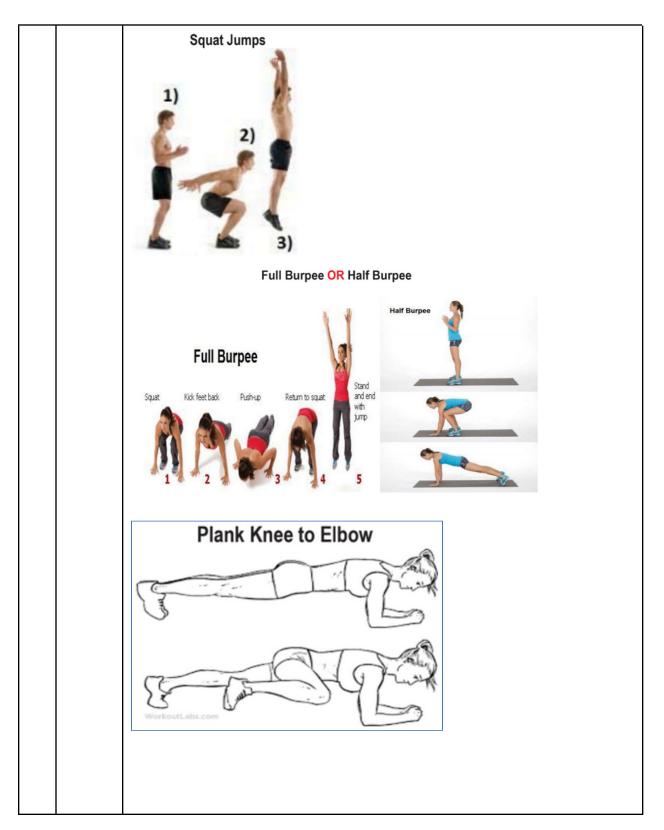
20 minutes As mentioned above, you are required to do physical activity daily, and to show your daily exercise time on a bar graph like the one below:

Aerobic activity examples that can be done indoors:



Isometric Bear Crawl





Jumping Jacks



15 minutes

You are required to workout daily at home, or outside keeping a far distance from others, and to note down the time of your daily workout minutes in a table like the one below:

0.10 20.01.1				
Day	Workout minutes			
Monday	60			
Tuesday	45			
Wednesday	75			
Thursday	60			
Friday	45			
Saturday	60			
Sunday	75			

30 minutes

Numeracy Extension

Observe 3 family members and note down how many times they touch their face in 15 minutes. You must tell them and get their consent that you will be observing them for an experiment that is beneficial for them. Then wait for some time before you start the 15-minute observation time to ensure that they do it naturally as usual.

- Observe one family member at a time. Note down the times they touch their face using a tally chart and write it in the below table.

When collecting the information, for every touch of the face, a line would be drawn in the correct box. When you get to five lines, the fifth line needs to be crossed

through the first four. (This makes counting the lines at the end easier!). See below how after reaching 4 counts, the fifth is concluded with a crossed line. See the examples below for a 4 followed by a 5. Family member No. of times they Estimate for 1 hour touch their face in 15 minutes In the above table, you must multiply by 4 the Number you counted in 15 minutes, and the answer will be the estimate for 1 hour. If the learner is not comfortable multiplying, they can add the number 4 times because 1 hour contains 4 15-minute-time-slots: 15 Show the results to family members. Ask them if they expected this? Now knowing minutes the estimate of how much they touch their face in an hour, what will they do the next time they go out? They must be careful not to touch their face when their hands are not washed in order to eliminate the chances of catching the Covid19 infection. All day ☐ Remember to: long o Record data on the daily eating habits table o Fill in the Sleeping log o Conduct your daily workout and note down the time in the table Did you record the data from yesterday? Have you faced any difficulties doing that? 3 15 Mental health check minutes We must always check on and review our purpose and goal in life:



			you want to be	, .	•		
		- How will	that help other	people, or our p	olanet?		
	5 minutes	☐ Reminde	r to:				
	illillates		rd data on the d		s table		
			the Sleeping lo	_			
	20	Conduct your dai		note down the	time in the table		
4	20 minutes	Mental health ch		strong feelings t	that you like to tell	someone about?	
	illillates	•	like fears, worri		•	someone about:	
		_	do you usually	· ·			
		• Is there a	anything you wa	nt to talk about	today?		
	60-70	Learners do a 1-h	nour workout at	home			
	minutes		-		scores in the respe	ctive table	
	60.70	Learners write th			ng log		
5-7	60-70 minutes	Learners do a 1-h			scores in the respe	ctive table	
	illillates	Learners write th	-		•	ctive table	
			, , , , , , , , , , , , , , , , , , ,		0 -0		
		Weekly food me	nu				
		Learners should develop a weekly food menu for the family using locally available					
		affordable foods which can enable them and the family members to select a My Healthy plate					
			_				
		Day of week	Fruits options	Vegetables	Lean proteins	Grains options	
				options	options		
		Monday					
		Tuesday					
		Wednesday					
		Thursday					
		Friday					
		Saturday					
		Sunday					
		 Note: The learne	r can make use	of Annendix 1. F	Building blocks of a	healthy diet	
		when developing			•	nearity diet	
8		Presentation to t					

	hours that wa		went to bed	time I	woke up	Sleep durati	on
		Lillie i v	vent to bed	time i	woke up	Sieep durati	OH
	Monday	+		_			
	Tuesday	+					
	Wednesday	+		_			
	Thursday	+		_			
	Friday Saturday	+					
	1	+		_			
	Sunday						
15 minutes	2. The learne discussion.		sent to the f			nabits table, follo	owed by
		1 - 1	alanced as ir eal plate dia				
	Monday						
	Tuesday						
	Wednesday						
	Thursday						
	Friday						
		1					
	Saturday						
	Saturday Sunday						
	Sunday O What O Did y O What make	ou drink t do you i them m	enough wat need to do t ore health r	er every o improv nourishin	ve your eating g?	nswers? g and drinking wa	



	15	Calculate the average of your daily workout. Is the average close to 60 minutes? What can be done for you to complete 60 or more minutes of daily workout?			
	minutes				
		 What did you appreciate the most about this project? Do you think you can lead a lifestyle that helps you maintain mental and physical health? 			
		 What were the family members willing to change and what were they reluctant to change? 			
		 How can you help or teach someone else to maintain a healthy lifestyle? 			
		- Tables and graphs are duly filled			
Asses	ssment	- The graphs are accurate and calculations are correct.			
Crite	ria:	- Table of weekly food menu duly filled			
		- Learners show motivation and grit while working on activities			
		- Learners show ownership and enthusiasm when presenting their results at the end			

Additional	- Create a journal of daily practices to be shared with friends.
enrichment	- Lead daily workout sessions for the family
activities:	- Write down a suggested meal schedule for a week following the Healthy Plate model
	rations.
Modifications	The project can be reduced to the Healthy Eating plate, sleeping log and daily workout
to simplify	graph.

TELL THE TIME WORKSHEET

What is the time? Under each of the clocks, write the time in the same format shown below



Example:

0.10





















in the evening, and woke up at



in the morning.

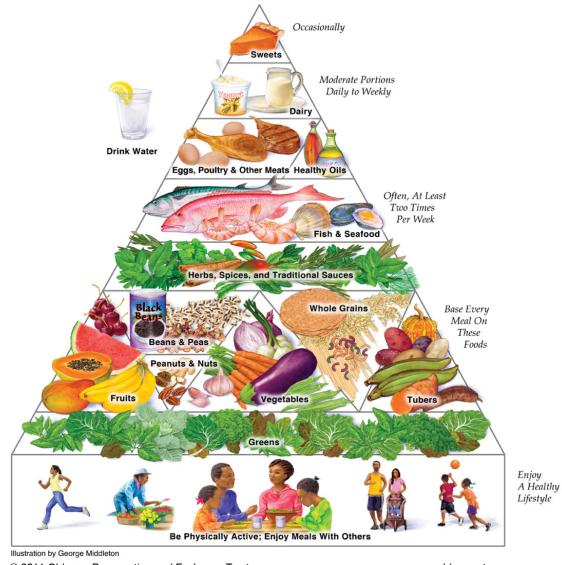
How many hours have you slept?



TRADITIONAL DIETS



African Heritage Diet Pyramid



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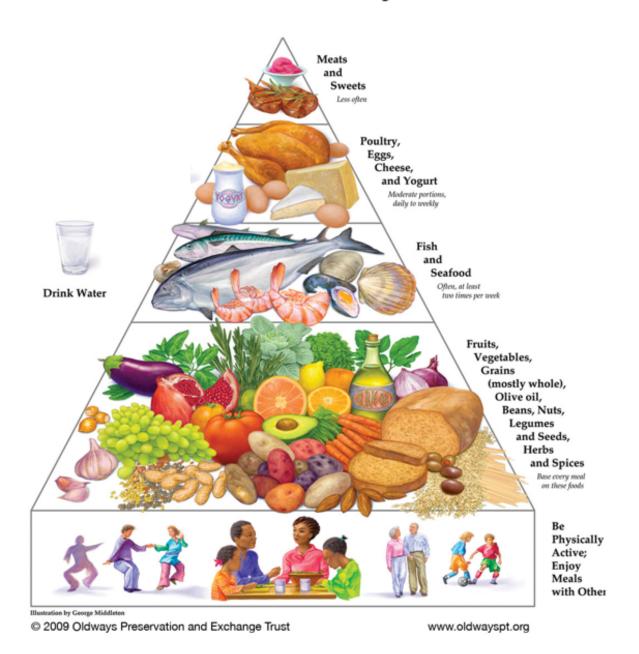




ASIAN HERITAGE DIET PYRAMID



Mediterranean Diet Pyramid



Appendix 1: Building blocks of a healthy diet

Appendix 1. Building blocks of a ficultity dies



Food type options

Vegetables: Vegetables protect us against heart disease and certain cancers

Examples of vegetables: Cucumber, broccoli, cauliflower, asparagus, green beans, pepper, eggplant, spinach, tomatoes, banana, carrots, onions, squash, cabbage etc.



Lean protein: Proteins help the body repair muscles and cartilage

Lean protein sources: Chicken or turkey without skin, fish (salmon, tilapia), lean cuts of beef or pork, beans, egg white, sea food, nuts, soy products, peanut butter etc.



Fruits: Fruits provide important vitamins and minerals including potassium, vitamins A and C and folic acid. Vitamins help the body to fight diseases by boosting its immune system

Examples of fruits include: Apples, bananas, blueberries, cherries, grapes, oranges, pears, strawberries etc.



Whole grains: Whole grains are rich in carbohydrates (energy-giving), contain fiber and key nutrients such as iron, magnesium and folic acid.

Examples of whole grains include: brown rice, barley, millet, wheat, cereal, oatmeal, whole-grain bread etc.



Ages 8 to 10 (Level 2)

Description:	Learners will be introduced to recommendations on how to maintain physical and mental health, and then will be asked to implement those and monitor along the way
Leading question:	Is my family leading a healthy and sustainable lifestyle?
Age group:	8-10
Subjects:	Math, Science (health)
Total time required:	~7 hours over 8 days
Self-guided / Supervised activity:	Half self guided over the first 3 days
Resources required:	Paper and pencil

Learning outcomes	 Understanding the importance of eating well, exercising and sleeping well in keeping good health for body and mind Practicing good sleeping and eating habits Understanding the importance of good mental health Able to collect data and represent it in tables and graphs Understanding and calculating the average
Required previous learning	Addition and simple division
Inspiration	o 20 Essential life lessons we learned from Mister Rogers o The iEARN project: Staying Healthy https://oldwayspt.org/

Topics/concepts covered and skills developed

- Good sleeping habits
- Good eating habits
- Physical exercises
- My Healthy Plate
- Good mental health
- Data collection and representation in tables and graphs
- Creativity
- Presentation and communication skills
- Reporting and presenting findings

Day	Time	Activity and Description

1 10 minutes

Introduction: in this project, we will look at the various aspects of a health nourishing lifestyle, which helps to maintain physical health and mental health. Physical health is maintained through a balance of: eating, working out, and sleeping.

Mental and psychological health can be maintained by having self-esteem, optimism, gratefulness, expressing feelings to people we trust, and having a life purpose and goals.

15 minutes

Sleeping habits

- Hours of sleep (recommended 9 to 11 hours for this age)

How many hours did you sleep last night? Is the duration within the recommended range?

On a piece of paper, draw a weekly log as shown below and hang it on the wall in your bedroom to note down the data on it everyday:

Day	time I went to bed	time I woke up	Sleep duration
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

*Once you have the data filled for 1 whole week, calculate the average sleep duration:

Average = $\frac{Sum \ of \ sleep \ duration \ for \ 7 \ days}{7}$

Average is a ratio that summarizes a multiple of answers in one somehow general answer.

Reflection

After calculating the average sleep duration for the week, learners will reflect on the following questions:

- Are you having enough sleep every night (between 9 and 11 hours)?
- Are you going to sleep before 9 pm every night?
- What do you need to do to make sure you go to bed before 9 pm and have 9-11 hours every night?

In case some of the reasons for you not to go to bed before 8 pm are beyond your control e.g late supper time, you should discuss with the responsible family member giving reasons why you need to sleep before 8 pm.

30 minutes

• Eating habits

My Healthy Plate

My Healthy Plate is a friendly easy-to-understand visual guide for creating balanced and healthy meals. It shows you what to eat in the right amounts for each meal, so that you can practice good eating habits.

The Healthy Plate below was created by nutrition experts at Harvard School of Public Health. The My Healthy Plate should be accompanied by water.



Source: https://www.gasolfoundation.org/downloadable-healthy-plate/

Reflect on the food you ate yesterday and categorize it under the four food types below: grains, vegetables (veggies), fruits and proteins.

Record your findings in the table below



Food type	Food you ate yesterday
Grains	
Fruits	
Proteins	
Vegetables	

Compare the type of food you ate yesterday (as indicated in the table) to the proportions shown in the My Healthy plate above*:

- ¼ Grains (bread, rice, pasta, ...)
- ¼ Protein (beans, fish, eggs, meat)
- >¼ Vegetables
- $< \frac{1}{4}$ fruits
- Use healthy oils with the food

*It is worth mentioning that traditional ways of eating are also a good guide to good food and good health. The above is just a modern universal suggestion of a healthy diet. See examples of Traditional Diets adapted from https://oldwayspt.org/

The learner should share and discuss the findings with the family The discussion should include:

- The importance of eating balanced and healthy meals
- How do you feel about the suggestions given in My Healthy Plate?
- To what extent was your food intake as balanced as recommended by experts in the My Healthy Plate above.

Drinking water

The human body is about 60% water. The body constantly loses water throughout the day mostly through urine, sweat and from regular body functions like breathing. To prevent dehydration, you need to drink a lot of water even if you are not thirsty. Health experts recommend:

- 5 glasses (1 liter) for 5 to 8 year olds
- 7 glasses (1.5 liters) for 9 to 12 year olds
- 8 to 10 glasses (2 liters) for 13+ years

Do you usually drink as much as recommended daily?

Draw a table like the one below to monitor your daily eating habits, and fill each row on a daily basis with a Yes or No.

Day	Was my food intake balanced as in the Healthy Plate diagram?	Did I drink enough water?
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

*At the end of the week, learners will present the compiled results to the family and discuss the below questions:

- O What was the total number of Yes answers?
- O What was the total number of No answers?
- How can we improve our eating and drinking water habits to make them more health nourishing?
- Should we change the time of our meals, cooking patterns, or ingredients?

20 minutes

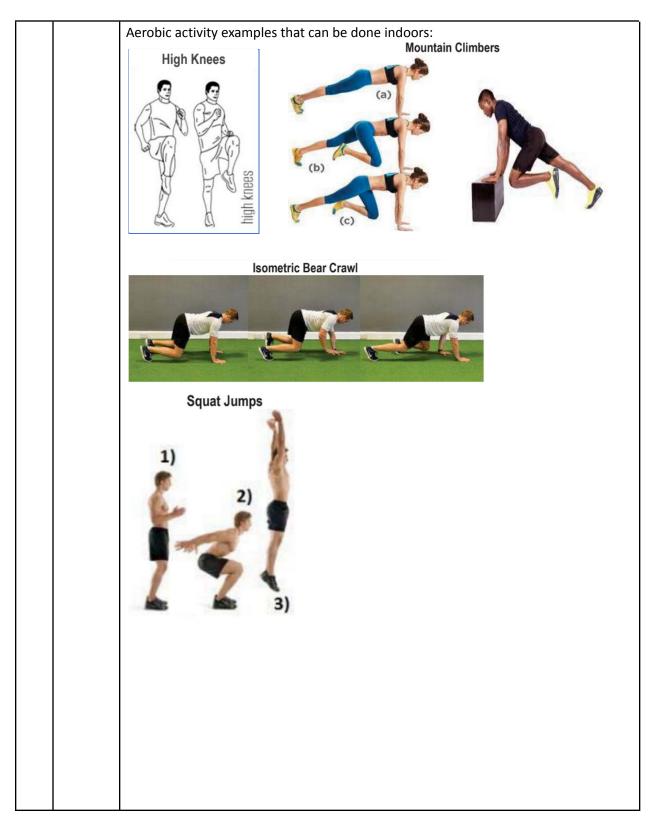
☐ Physical Workout

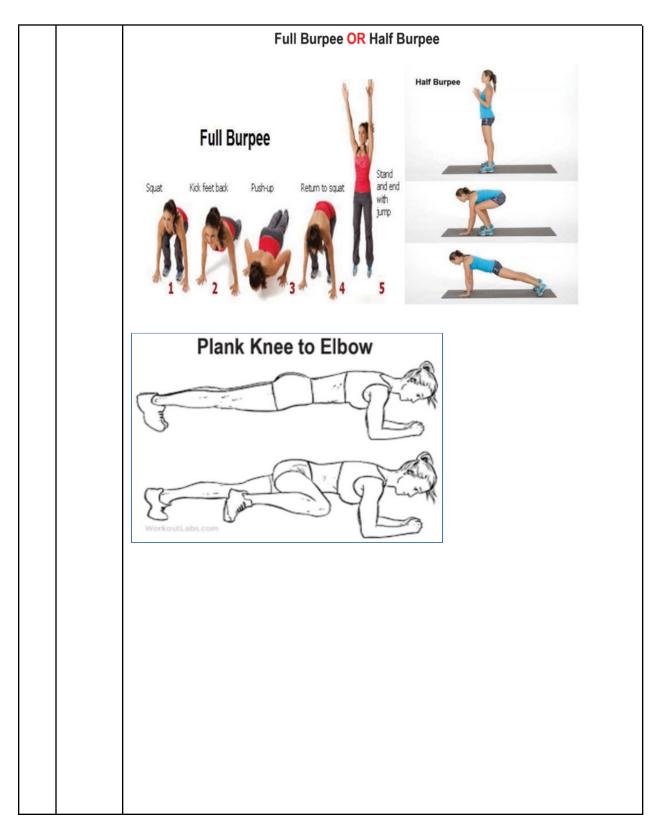
From the World Health Organization (WHO):

- 1. Children and youth aged 5–17 should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily.
- 2. Amounts of physical activity greater than 60 minutes provide additional health benefits.
- 3. Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least 3 times per week.

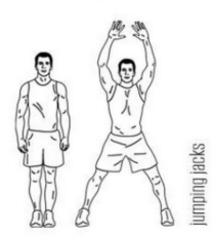
Source: https://www.who.int/dietphysicalactivity/global-PA-recs-2010.pdf

As mentioned above, you are required to do physical activity daily, and to show your daily exercise time on a bar graph like the one below:





Jumping Jacks



15 minutes

You are required to workout daily at home, or outside keeping a far distance from others, and to note down the time of your daily workout minutes in a table like the one below, in order for it to be shown on a graph like the one below:

Day	Workout minutes
Monday	60
Tuesday	45
Wednesday	75
Thursday	60
Friday	45
Saturday	60
Sunday	75



2 15 minutes

Let's start today with a mental health check:

• Recall at least 3 things that you are grateful for. Express each in one or more words. You may also draw a representation of it.

Being Grateful means being highly appreciative and showing kindness.

45 minutes

Numeracy Extension

Observe 3 family members and note down how many times they touch their face in 15 minutes. You must tell them and get their consent that you will be observing them for an experiment that is beneficial for them. Then wait for some time before you start the 15 minute observation time to ensure that they do it naturally as usual.

- Observe one family member at a time. Note down the times they touch their face using a tally chart, and write it in the below table.

When collecting the information, for every touch of the face, a line would be drawn in the correct box. When you get to five lines, the fifth line needs to be crossed through the first four. (This makes counting the lines at the end easier!). See below how after reaching 4 counts, the fifth is concluded with a crossed line. See the examples below for a 4 followed by a 5.



1	No. of times they touch their face in 15 minutes	Estimate for 1 hour

In the above table, you must multiply by 4 the Number you counted in 15 minutes, and the answer will be the estimate for 1 hour.

15 minutes

Show the results to family members. Ask them if they expected this? Now knowing the estimate of how much they touch their face in an hour, what will they do the next time they go out? They must be careful not to touch their face when their hands are not washed in order to eliminate the chances of catching the Covid19 infection.

All day long

Remember to record data on:

o Record data on the daily eating habits table



		 Fill in the Sleeping I 	og		
		 Conduct your daily 	workout and note	down the time in	the table
		Did you record the data from ye	sterday? Have you	faced any difficul	ties doing that?
3	15	Mental health check			
	minutes				-
		 We must always check on a What do you want to be 		_	re:
		- How will that help othe		•	
		Trow will enderrelp office	. people, or our pro		
	5	☐ Reminder to:			
	minutes	o record data on the	daily eating habits	table	
		 Fill in the Sleeping I 	-		
		Conduct your daily workout and	note down the tir	ne in the table	
4	20 mins	Mental health check	strong foolings th	at vou like to tell s	camaana ahaut?
		 Do you sometimes have Feelings like fears, worr 		•	omeone about?
		 To whom do you usually 	· · · · · · · · · · · · · · · · · · ·		
		 Are there any feelings of 		-	t today?
		Loarnors do a 1 hour workout a	homo		
		Learners do a 1 hour workout at home Learners monitor daily eating habits and record scores in the respective table			
		Learners write their sleeping ho		· ·	
5-7	60-70	Learners do a 1 hour workout a			
	minutes	Learners monitor daily eating habits and record scores in the respective table Learners write their sleeping hours in the sleeping log			
		Learners write their sleeping no	urs in the sleeping	log	
		Weekly food menu			
		Learners should develop a week	-	-	-
		affordable foods which can enable them and the family members to select a My Healthy plate			
		reality place			
		Day of week Fruits options	Vegetables	Proteins options	Grains options
			options		
		Monday			
		Tuesday			
		Wednesday			
		Thursday			
		Friday			

		l r			1	T .
		Saturday				
		Sunday				
			er can make use of			nealthy diet
		· ` `	g the options for th	ne weekly food n	nenu.	
8	15 minutes	Presentation				
	minutes					
		1. The lear	ner will present to	the family your	sleening log, and	the average
			hours that you cal		31ccp1118 108) arra	the average
			,			
		Day ti	me I went to bed	time I woke up	Sleep du	ration
		Monday				
		Tuesday				
		Wednesday				
		Thursday				
		Friday				
		Saturday				
		Sunday				
		get your sleep w	uration within the in the in the in the recomme	nded range?		
	15	2. The lear	ner will present to	the family his/h	er Eating habits t	able, followed by
	minutes	Day	Was my food ir balanced as in ideal plate diag	the	nk enough water	?
		Monday				
		Tuesday				
		Wednesday				
		Thursday				
		Friday				
		Saturday				
		Sunday				
			as the total numbe			
		l 5 Tillac We	total mambe	. 5 5 0 5 00 0. 15	-	



		O How can we improve our eating and drinking water habits to make them more health nourishing? O Should we change the time of our mode, eaching natterns, or ingredients?			
		 Should we change the time of our meals, cooking patterns, or ingredients? 			
	15 minutes	The learner will present his/her daily workout table, along with the graph showing the daily workout duration.			
		Calculate the average of your daily workout. Is the average close to 60 minutes? What can be done for you to complete 60 or more minutes of daily workout?			
	15 minutes	Reflection			
	iiiiiutes	The leasure will reflect out the culterle was been			
The learner will reflect on the whole project		, ·			
l l					
		 Do you think you can lead a lifestyle that helps you maintain mental and physical health? 			
		 What were the family members willing to change and what were they 			
		reluctant to change?			
		 How can you help or teach someone else to maintain a healthy lifestyle? 			
		- Tables and graphs are duly filled			
Assessment		- The graphs are accurate, and calculations are correct.			
Criteria:		- Table of weekly food menu duly filled			
		- Learners show motivation and grit while working on activities			
- Learners show ownership and enthusiasm when presenting their results at the					

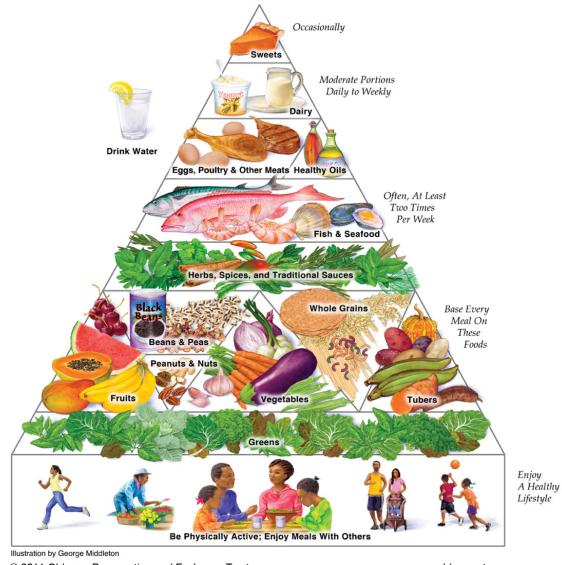
Additional	- Create a journal of daily practices to be shared with friends.	
enrichment	enrichment - Lead daily workout sessions for the family	
activities:	- Write down a suggested meal schedule for a week following the Healthy Plate	
	model rations.	
Modifications	The project can be reduced to the Healthy Eating plate, sleeping log and daily	
to simplify	workout graph.	



TRADITIONAL DIETS



African Heritage Diet Pyramid



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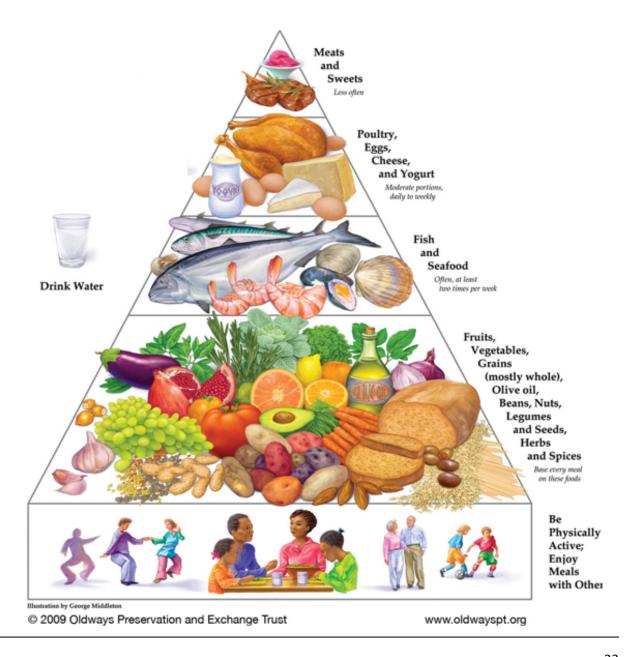


ASIAN HERITAGE DIET PYRAMID





Mediterranean Diet Pyramid



Appendix 1: Building blocks of a healthy diet

Food Type



Food type options

Vegetables: Vegetables protect us against heart disease and certain cancers

Examples of vegetables: Cucumber, broccoli, cauliflower, asparagus, green beans, pepper, eggplant, spinach, tomatoes, banana, carrots, onions, squash, cabbage etc.



Lean protein: Proteins help the body repair muscles and cartilage

Lean protein sources: Chicken or turkey without skin, fish (salmon, tilapia), lean cuts of beef or pork, beans, egg white, sea food, nuts, soy products, peanut butter etc.



Fruits: Fruits provide important vitamins and minerals including potassium, vitamins A and C and folic acid. Vitamins help the body to fight diseases by boosting its immune system

Examples of fruits include: Apples, bananas, blueberries, cherries, grapes, oranges, pears, strawberries etc.



Whole grains: Whole grains are rich in carbohydrates (energy-giving), contain fiber and key nutrients such as iron, magnesium and folic acid.

Examples of whole grains include: brown rice, barley, millet, wheat, cereal, oatmeal, whole-grain bread etc.



Ages 11 to 14 (Level 3)

Description:	Learners will be introduced to recommendations on how to maintain physical and mental health, and then will be asked to implement these and monitor and present results using data handling skills.
Leading question:	Is my family leading a healthy and sustainable lifestyle?
Age group:	11-14
Subjects:	Math, Science (health)
Total time required:	~7 hours over 8 days
Self-guided / Supervised activity:	Low supervision required
Resources required:	Paper and pencil

Learning outcomes	 Understanding the importance of eating well, exercising and sleeping well in keeping good health for body and mind Practicing good sleeping and eating habits Understanding the importance of good mental health Collecting data and representing it in tables and graphs Understanding and correctly finding out the Median, Mean,
Required previous learning	Range and Mode of a data sets Arithmetic operations with decimals or fractions.
Required previous learning	·
Inspiration	 20 Essential life lessons we learned from Mister Rogers The iEARN project: <u>Staying Healthy</u>
	Qatar's Mathematics Curriculum Standardshttps://oldwayspt.org/

Topics/concepts covered and skills developed

- Good sleeping habits
- Good eating habits
- Physical exercises
- My Healthy Plate
- Good mental health
- Data collection and representation in tables and graphs
- Creativity
- Presentation and communication skills
- Reporting and presenting findings



Day	Time	Activity and Description							
1	10 minutes	Introduction: in this project, we will look at the various aspects of a health nourishing lifestyle, which helps to maintain physical health and mental health. Physical health is maintained through a balance of: eating, working out, and sleeping.							
			ntal and psychological health can be maintained by having self-esteem, optimism tefulness, expressing feelings to people we trust, and having a life purpose and lis.						
		Suggested mental health activities:							
	 Express feelings, to those you trust, without hurting others. Try to be optimistic during hard times by focusing on the big picture positive aspects, as lessons learned. Regularly recall what you are grateful for. Always check on and review your purpose and goal in life: What do I want to do when I grow up? How will that help other people, or our planet? 								
• Sleeping habits minutes Hours of sleep (recommended 9 to 11 hours for this age)					e)				
			urs did you sleep last within the recomme	_					
			paper, draw a weekly to note down the da	-	and hang it on the wall in				
		Day	time I went to bed	time I woke up	Sleep duration				
		Monday							
		Tuesday							
		Wednesday							
		Thursday							
Saturday									
		Sunday							
	ate the Mean (average) and								

 $Mean = \frac{Sum \ of \ sleep \ duration \ for \ 7 \ days}{7}$

Median: is the middle value after organizing the values in an ascending order.

Reflection

Once you have the data filled for 1 whole week, you will reflect on the following questions:

- Are you having enough sleep every night (between 9 and 11 hours)?
- Are you going to sleep before 9 pm every night?
- What do you need to do to make sure you go to bed before 9 pm and have 9-11 hours every night?

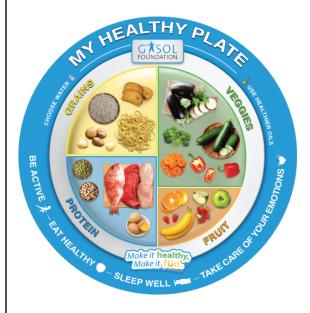
In case some of the reasons for you not going to bed before 8 pm are beyond your control e.g late supper time, you should discuss with the responsible family member giving reasons why you need to sleep before 8 pm.

20 minutes

Eating habits

My Healthy Plate is a friendly easy-to-understand visual guide for creating balanced and healthy meals. It shows you what to eat in the right amounts for each meal, so that you can practice good eating habits.

The Healthy Plate below was created by nutrition experts at Harvard School of Public Health. The My Healthy Plate should be accompanied by water





Source: https://www.gasolfoundation.org/downloadable-healthy-plate/

Reflect on the food you ate yesterday and categorize it under the four food types below: grains, vegetables (veggies), fruits and proteins.

Record your findings in the table below

Food type	Food you ate yesterday
Grains	
Fruits	
Proteins	
Vegetables	

Compare the type of food you ate yesterday (indicated in the table) to the proportions shown in the My Healthy Plate*:

- ¼ Grains (bread, rice, pasta, ...)
- ¼ Protein (beans, fish, eggs, meat)
- > 1/4 Vegetables
- $< \frac{1}{4}$ fruits
- Use healthy oils with the food

*It is worth mentioning that traditional ways of eating are the ideal guide to good food and good health. The above is just a modern universal suggestion of a healthy diet. See examples of <u>Traditional Diets</u> adapted from https://oldwayspt.org/

□ Drinking water

The human body is about 60% water. The body constantly loses water throughout the day mostly through urine, sweat and from regular body functions like breathing. To prevent dehydration, you need to drink a lot of water even if you are not thirsty.

Health experts recommend:

- 8 glasses (1.5 liters) for 9 to 12 year olds
- 10 glasses (2 liters) for 13+ years (assuming 200 ml /glass)

Do you usually drink as much as recommended daily?

Draw a table like the one below to monitor your daily eating habits and use tally marks to count the glasses of water you drink every day.

Day	Was my food intake balanced as	Number of glasses of water per day
	in the Healthy	
	Plate diagram?	
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

Then calculate the <u>mean</u>, <u>median</u>, <u>range</u> and <u>mode</u> of the number of water glasses you drink per day.

The range = Highest – Lowest

Mode: is the most frequent number.

At the end of the week, learners will present the compiled results to the family and discuss the below questions:

- O What was the total number of Yes versus No answers for the eating habits?
- What were the mean, median, range and mode of glasses of water you drank everyday?
- How can we improve our eating and drinking water habits to make them more health nourishing?
- o Should we change the time of our meals, cooking patterns, or ingredients?

20 minutes

☐ Physical Workout

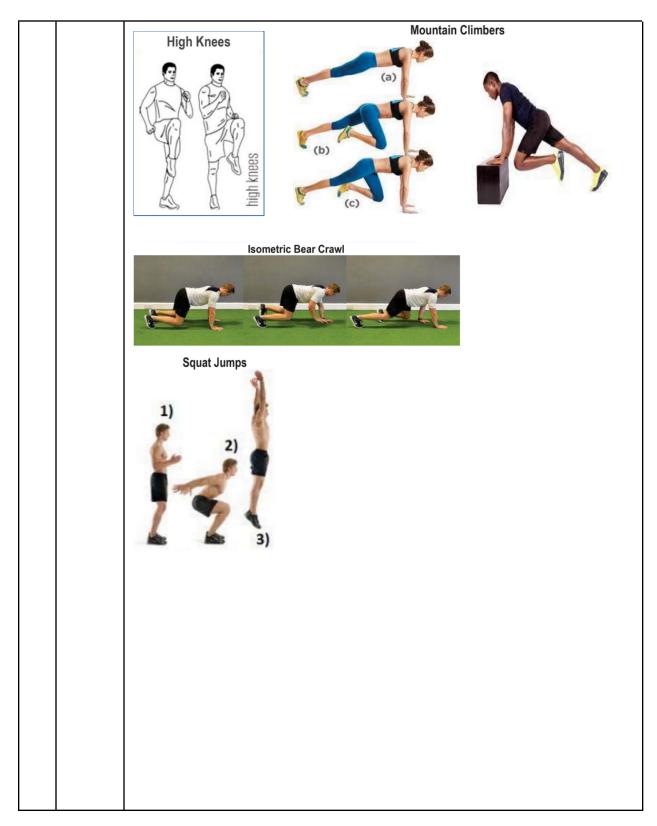
From the World Health Organization (WHO):

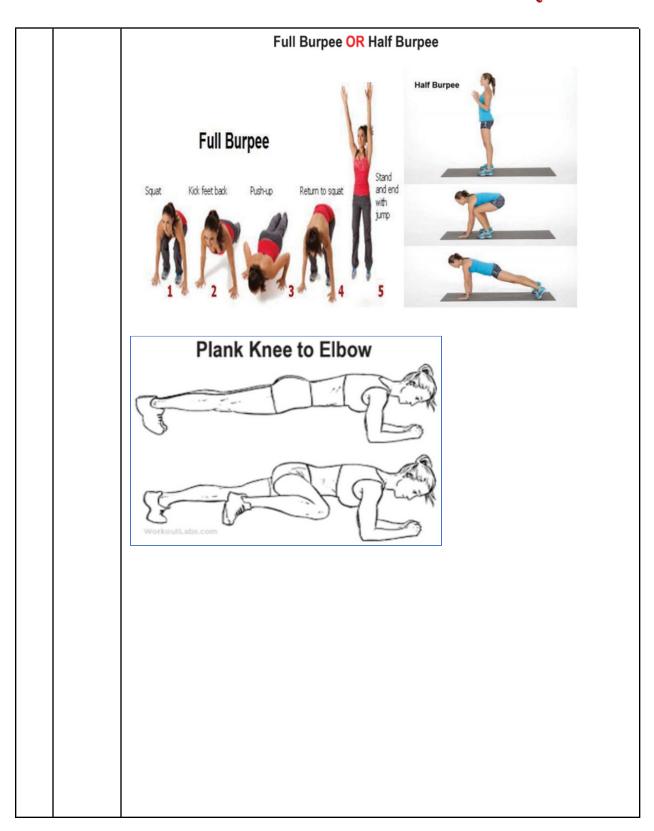
- 1. Children and youth aged 5–17 should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily.
- 2. Amounts of physical activity greater than 60 minutes provide additional health benefits.
- 3. Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least 3 times per week.

Source: https://www.who.int/dietphysicalactivity/global-PA-recs-2010.pdf

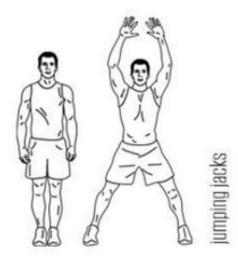
As mentioned above, you are required to do physical activity daily, and to show your daily exercise time on a bar graph like the one below:

Aerobic activity examples that can be done indoors:





Jumping Jacks



15 minutes

You are required to workout daily at home, or outside keeping a far distance from others, and to note down the time of your daily workout minutes in a table like the one below, in order for it to be shown on a graph like the one below:

,		
Day	Workout minutes	
Monday	60	
Tuesday	45	
Wednesday	75	
Thursday	60	
Friday	45	
Saturday	60	
Sunday	75	



2 | 15 minutes

Let's start today with a mental health check:

• Recall at least 3 things that you are grateful for. Express each in one or more words. You may also draw a representation of it.

Being Grateful means being highly appreciative and showing kindness.

45 minutes **Numeracy Extension**

Observe 3 family members and note down how many times they touch their face in 15 minutes. You must tell them and get their consent that you will be observing them for an experiment that is beneficial for them. Then wait for some time before you start the 15 minute observation time to ensure that they do it naturally as usual.

- Observe one family member at a time. Note down the times they touch their face using a tally chart and write it in the below table.

When collecting the information, for every touch of the face, a line would be drawn in the correct box. When you get to five lines, the fifth line needs to be crossed through the first four. (This makes counting the lines at the end easier!). See below how after reaching 4 counts, the fifth is concluded with a crossed line. See the examples below for a 4 followed by a 5.



No. of times they	Estimate for 1 hour
touch their face in	
15 minutes	
	touch their face in

		In the above table, you must multiply by 4 the Number you counted in 15 minutes, and the answer will be the estimate for 1 hour.
	15 minutes	Show the results to family members. Ask them if they expected this? Now knowing the estimate of how much they touch their face in an hour, what will they do the next time they go out? They must be careful not to touch their face when their hands are not washed in order to eliminate the chances of catching the Covid19 infection.
	10 minutes	 □ Remember to record data on: ○ Record data on the daily eating habits table ○ Fill in the Sleeping log ○ Conduct your daily workout and note down the time in the table Did you record the data from yesterday? Have you faced any difficulty doing that?
3	15	Mental health check
	minutes	 We must always check on and review our purpose and goal in life: What do you want to be when you grow up? How will that help other people, or our planet?
	30	Numeracy Extension
	minutes	Solve the <u>Data handling Worksheet</u> without using a calculator, then share your work and answers with your parents. Criteria: logically following the formulas, and reaching correct answers.
	10	Described to the second to the second to
	minutes	Present your work and answers to parents.
		Answer Key
		1.c 8.86 or 8 $\frac{6}{7}$ °C 2.a 1
		b 4
		3. 13.7 seconds
		4. a 50.89 or $50\frac{8}{9}$ matches b. 49
		c. 5
		d. 52
	All day	☐ Reminder to:
	long	Record data on the daily eating habits table



Conduct your daily workout and note of	down the time in the table						
	Conduct your daily workout and note down the time in the table						
 Do you sometimes have strong for Feelings like fears, worries, sadn To whom do you usually express Are there any feelings or worries 	 Mental health check Do you sometimes have strong feelings that you like to tell someone about? Feelings like fears, worries, sadness, pride? To whom do you usually express your feelings? Are there any feelings or worries that you want to talk about today? 						
60-70 Learners do a 1 hour workout at home minutes Learners monitor daily eating habits and Learners write their sleeping hours in the	•						
5-7 60-70 minutes Learners do a 1 hour workout at home Learners monitor daily eating habits and Learners write their sleeping hours in the Weekly food menu Learners should develop a weekly food re	Learners monitor daily eating habits and record scores in the respective table Learners write their sleeping hours in the sleeping log Weekly food menu Learners should develop a weekly food menu for the family using locally available affordable foods which can enable them and the family members to select a My						
Day of week Fruits options Vegeta option	· · · · · · · · · · · · · · · · · · ·						
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday							
Sunday							
l	Note: The learner can make use of Appendix 1: Building blocks of a healthy diet when developing the options for the weekly food menu.						
l I	Presentation 1. The learner will present to the family your sleeping log, and the average sleeping hours that you calculated.						
Day time I went to bed time	e I woke up Sleep duration						
Monday							
Tuesday							

1								
	Wednesday							
	Thursday							
	Friday							
	Saturday							
	Sunday							
			I				l	
	$Mean = \frac{Sum \ of \ sleep \ duration \ for \ 7 \ days}{7} = ?$							
	Median =? (The	Median =? (The middle value after organizing the values in an ascending order.)						
	Are the mean ar to get your slee			mmended range d range?	? If not, what	can you	u do	
15								
minutes	2 The learner w	ill procept to the	family bi	s/bor Fating bab	ita tabla.			
		Was my food		s/her Eating hab Did I drink enou				
	Day	balanced as		Did I di lik elloc	igii watei :			
		ideal plate d						
	Monday	· ·						
	Tuesday							
	Wednesday							
	Thursday							
	Friday							
	Saturday							
	Sunday							
	January			1		l		
	Present & discus	ss the below witl	n your fan	nily:				
	o What w	as the total num	ber of Yes	versus No answ	ers for the eat	ing hab	oits?	
			edian, ra	nge and mode of	f glasses of wa	ater you	ı	
	drank everyday?							
	 How can we improve our eating and drinking water habits to make them more health nourishing? 							
		_		mools sooking	nattorns or in	aradiar	n+c2	
15	 Should we change the time of our meals, cooking patterns, or ingredients? 							
minutes								
Present your daily workout table, along with the graph showing the daily workout duration.					out			
				ut. Is the average or more minutes			?	
15								
minutes	Reflection							



	 The learner will reflect on the whole project What did you appreciate the most about this project? Do you think you can lead a lifestyle that helps you maintain mental and physical health? What were the family members willing to change and what were they reluctant to change? How can you help or teach someone else to maintain a healthy lifestyle?
Assessment Criteria:	 Tables and graphs are duly filled The graphs are accurate and calculations are correct. Table of weekly food menu duly filled Learners show motivation and grit while working on activities Learners show ownership and enthusiasm when presenting their results at the end

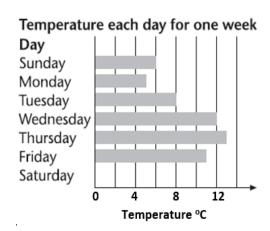
Additional	- Create a journal of daily practices to be shared with friends.		
enrichment	enrichment - Lead daily workout sessions for the family		
activities:	- Write down a suggested meal schedule for a week following the Healthy Plate		
	model rations.		
Modifications	The project can be reduced to the Healthy Eating plate, sleeping log and daily		
to simplify	workout graph.		

DATA HANDLING WORKSHEET

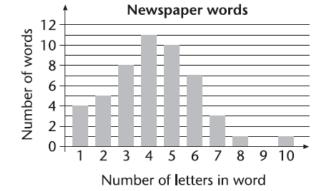


- 1. Here is a chart of the maximum temperature each day for a week in a Mediterranean city in January.
 - a. The temperature on Saturday was 7°C. Draw in the bar for Saturday.
 - b. Make a table showing the same information as on the bar chart.





- 2. An article from the Gulf Times has 50 words in it. Here is a bar chart of the number of letters in each word.
 - a. What is the range of the number of letters in the words used?



- b. What is the mode (most common number) of letters used in a word?
- 3. Bashir runs 100 metres ten times.
 These are his times in seconds.

13.4	13.0	13.9	13.7	13.3
13.5	14.0	14.4	13.8	14.0

What is his mean time?

4. Alia counts the matches in nine matchboxes. Here are her results for the nine boxes:

	Number of matches in a box								
48	48 49 50 51 52 53 54								
	✓	✓	✓	✓		✓			
	✓	✓				✓			
	✓								

- a. What is the median number of matches in a box?
- b. What is the mode for the number of matches in a box?
- c. What is the range of the number of matches in a box?
- d. Alia counts the matches in one more box. She works out that the mean number of matches in all ten boxes is 51. Calculate how many matches are in the tenth box.

TRADITIONAL DIETS



African Heritage Diet Pyramid



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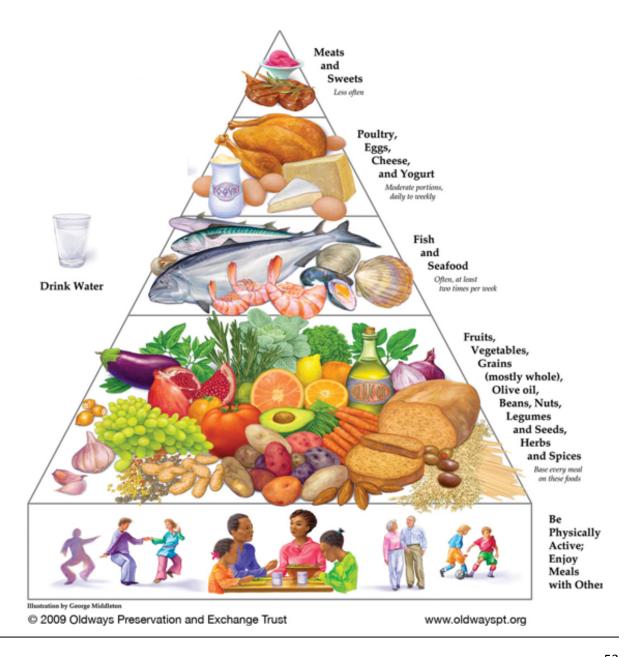


ASIAN HERITAGE DIET PYRAMID





Mediterranean Diet Pyramid





https://www.healthbeckon.com/healthy-vegetables/

Appendix 1: Building blocks of a healthy diet

Appendix 1. Building blocks of a ficaltity die

Food Type

Food type options

Vegetables: Vegetables protect us against heart disease and certain cancers

Examples of vegetables: Cucumber, broccoli, cauliflower, asparagus, green beans, pepper, eggplant, spinach, tomatoes, banana, carrots, onions, squash, cabbage etc.



Lean protein: Proteins help the body repair muscles and cartilage

Lean protein sources: Chicken or turkey without skin, fish (salmon, tilapia), lean cuts of beef or pork, beans, egg white, sea food, nuts, soy products, peanut butter etc.



Fruits: Fruits provide important vitamins and minerals including potassium, vitamins A and C and folic acid. Vitamins help the body to fight diseases by boosting its immune system

Examples of fruits include: Apples, bananas, blueberries, cherries, grapes, oranges, pears, strawberries etc.



Whole grains: Whole grains are rich in carbohydrates (energy-giving), contain fiber and key nutrients such as iron, magnesium and folic acid.

Examples of whole grains include: brown rice, barley, millet, wheat, cereal, oatmeal, whole-grain bread etc.