INFORMATION SHEET
BE ACTIVE TO BE HEALTHY
Module 3: Topic 1

Whatever your age, there is good scientific evidence that being physically active can help you lead a healthier life. Regular physical activity can reduce the risk of many chronic conditions, including coronary heart disease, stroke, type 2 diabetes, cancer, obesity, mental health problems and musculoskeletal conditions.

How physical activity benefits health
Being active can help us to be healthier in both body and mind. Physical activity makes you feel more energetic. When hormones called endorphins are released into your bloodstream during activity, you feel much more energised.

A healthy weight and physical activity
Two in every three adults on the island of Ireland are carrying excess weight. The less active you are, the more you are at risk of being overweight. To be a healthy weight, you need to take regular physical activity and eat a healthy diet. This ensures a balance between the energy you get from food (kilojoules/kilocalories) and the energy you use through moving your body.

Benefits of being active include

- Stronger heart and lungs
- Improves your mental health
- You feel better
- Reduced symptoms of anxiety and depression
- Lower blood pressure and cholesterol
- More energy
- Better quality sleep
- Stronger bones
- Prevents chronic disease
- Weight loss and helps you keep up a healthy weight
- Decreases stress

Physical activity levels for young people
Young people should be active at a moderate to vigorous level every day, depending on their age and weight. See the table below:

Category	How much?	How often?
Children and young people under 18 years old	• All children and young people (aged 2–18 years) should be active, at a moderate to vigorous level, for at least 60 minutes every day. • Try to include muscle strengthening, flexibility and bone strengthening exercises 3 times a week. See table below for example of activities. • Try to be more active in your everyday life, for example, walking, cycling, active play – games involving movement, dancing, using the stairs instead of the lift, helping around the house, walking the dog.	Every day of the week.
Adults over 18 years old	• At least 30 minutes of moderate to vigorous activities, for example, walking, running, swimming, cycling, football or dancing. This is the minimum and should be slowly increased over time. • For more health benefits, increase your activity to 60 minutes of moderate activity 5 days a week. • Try to include muscle strengthening, flexibility and bone strengthening exercises during the week as well (2–3 days a week). See table below for example of activities.	At least 5 days a week or 150 minutes a week.

What counts?
The words 'moderate' and 'vigorous' describe how much you sweat and breathe during activity. Whether an activity or physical activity is moderate or vigorous depends on how hard you're working to carry it out and how much energy you're using.

Young people should be active at a moderate to vigorous level, between 30–60 minutes every day, depending on their age and weight (up to 90 minutes if you need to lose weight).

The activity should include **muscle strengthening** (sit-ups and push-ups), **flexibility** (stretching) and **bone strengthening** activity (skipping, jumping, running and basketball) at least **three times a week.**

Type of Activity	Examples
Aerobic **Moderate Intensity** activity means your breathing is harder than normal and your heart is beating faster than normal, but you are still able to carry on a conversation. You will be warm or sweating slightly but it is at a comfortable pace.	• Active recreation, such as skateboarding, roller-blading • Brisk walking • Bicycle riding • Games of throw and catch, like rounders and throwing a frisbee
Aerobic **Vigorous Intensity** activity means you are breathing much harder than normal and so it is more difficult to keep a conversation going. You have a much faster heart beat and you are sweating.	• Active games involving running and chasing • Bicycle riding • Jumping rope • Martial arts such as karate • Boxing • Sports such as football/soccer, rugby, basketball, tennis, hurling • Vigorous dancing
Muscle Strengthening activity requires you to lift your own body weight or to work against a resistance, such as climbing a rope.	• Games such as tug-of-war • Push-ups and pull-ups • Resistance exercises with exercise bands • Weight machines, hand-held weights • Sit-ups (curl-ups or crunches)
Bone Strengthening activity produce an impact or tension force on the bones that promotes bone growth and strength.	• Hopping, skipping, jumping • Jumping rope • Running • Sports such as gymnastics, basketball, volleyball and tennis

Top tips for getting active

Enjoy it

The secret of success is doing something you really enjoy that you can fit into your life and you can keep doing regularly. Try a number of activities before choosing those you like best.

Warm up and cool down – take care of your muscles

Warming up and cooling down reduces your risk of injury or discomfort. It is a good idea to include some stretching at the end of your activity. You can get some ideas for stretches, how to warm up and how to cool down by visiting **www.getirelandactive.ie/get-started/keep-safe/**

Go mobile

Why not use your smart phone and try out some fitness APPs to help get active, visit **www.getirelandactive.ie/get-motivated/popular-apps/**

Switch off the TV and limit screen time

Young people should minimise the amount of time sitting watching TV, playing computer games, texting and travelling by car or bus when they could walk or cycle instead. It's recommended that young people spend no more than two hours per day watching TV, on the computer or playing computer games. The more time spent sitting down, the less the body is moving and using up the kilojoules/kilocalories from your daily food, and the more likely you are to gain weight and have less muscle.

Set yourself a time limit and stick with it. Remember there is no chance of being active when watching the TV.

Get a routine going

There are 1,440 minutes in a day, so see where you can use at least 60 of them for activity. Remember you don't have to do it all at once, even 10 minutes at a time counts. Any activity is better than none.

Build it up

Gradually build up your activity to at least 60 minutes a day, depending on what's recommended for your age and weight. Slowly build it up. Start at 10 minutes and gradually increase it over time. You don't have to do it all in one go to get the benefits – if you are aiming for 60 minutes a day, four sessions of 15 minutes is just as good!

Stay hydrated

Drink before, during and after your activity – don't wait until you're thirsty. Water is the best choice. For more information on staying hydrated when active visit **www.safefood.eu/Healthy-Eating/Seasonal-features/Drinks.aspx**

If it hurts, stop

Be aware of how your body feels and don't push it too far. Physical activity is not meant to be painful!

Try to do some physical activity every day such as:

- Walking more and taking more steps each day by taking the stairs instead of the lift or escalator
- Swapping 20–30 minutes of time watching TV or using the computer with a brisk walk or dancing
- Spending more time outdoors – a walk in the park, a trip to the seaside, taking the dog for a walk
- Taking a walk on your lunch time
- If you travel a short distance, walk or cycle instead of taking the car or bus
- If you take the bus, get off a stop earlier and walk
- Meet a friend for a walk instead of sitting down watching TV or playing computer games.

Do short bursts – every little helps

Getting active doesn't have to take a lot of time or money. Try to get a little physical activity every day to get started. Even 10 minutes at a time counts.

Healthy swaps for getting active

Swap this	For this	Better still this
 Getting the bus all the way	Getting off two stops early and walking the rest of the way	Walk all the way
 Sitting in front of the TV for more than two hours a day	Limit TV to one hour a day – go outside	Limit TV to one hour a day at weekends – make an activity plan
 Playing computer games for more than two hours a day	Limit computer games to one hour a day – go outside	Play with a football, skateboard or a hula hoop

Weight management

Greater amounts of physical activity are likely to be needed to achieve weight loss and prevent weight regain in adults.

Guidelines for adults older than 18 years old for losing weight and keeping it off

- People who are overweight or obese get similar health benefits from being active as people who are a healthy weight.
- Even if you don't lose weight from being active is good for your health.
- If you do lose weight from being more active, you will get even more health benefits.
- To lose weight you need to change your diet as well as increase your activity levels.

To maintain a healthy weight through exercise alone

- To avoid gaining weight, you need to use at least 350 Calories per day in physical activity, as well as the energy you use in everyday tasks. This means about 60 minutes of brisk walking or 30 minutes of jogging per day.
- If you have lost a significant amount of weight you may need to do 60–90 minutes of moderate activity per day to keep the weight off (UK Department of Health. 2004).

To lose weight

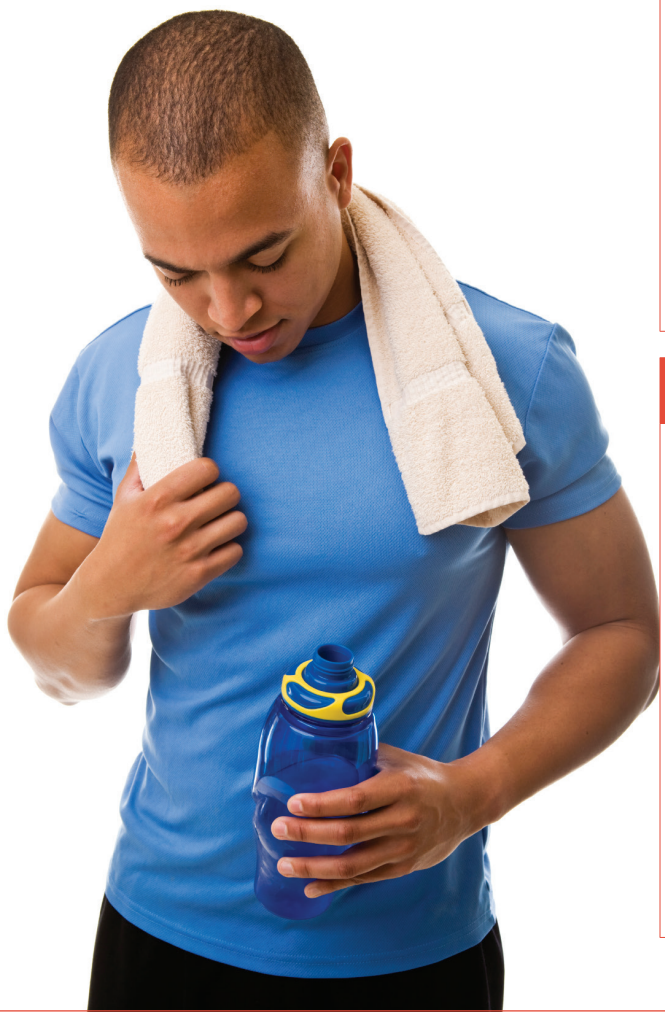
- To lose weight, you need to do more physical activity than the recommendations for adults at a healthy weight. How much activity you need to do can vary depending on the number of factors, including how much weight you need to lose. In general, you need to do more than one third more activity than the amount recommended by the adult guidelines. This amounts to brisk walking for at least 60–75 minutes for day. (If you have a very high Body Mass Index (BMI), 30.0 or above, or you are extremely inactive, start with bouts of 10 minutes or less. Gradually increase the duration, and then the intensity of your activity until you reach the adult guidelines).
- Remember that spending time building lean tissue (muscle) as well as aerobic activity will also help you to lose weight. Spending some time a few times a week working on major muscles (sit-ups and push-ups etc.) and strength and conditioning circuit training, strength training, stretching/flexibility etc.) will be beneficial when trying to manage your weight.
- Also remember, energy/diet restriction combined with physical activity will increase weight loss as compared to diet alone.

For further information on managing your weight, see **www.weigh2live.ie**

Fuel for sport or physical activity

Good nutrition helps individuals involved and interested in sports maximise power and endurance as well as overall performance and health.

- Choosing something quick, easy and healthy can be challenging when you have training/physical activity after a long day in a training centre or at a course. The temptation can be to grab something on the way to training/physical activity but you're likely to fall into the trap of grabbing a fizzy drink and bag of crisps. Not the most nutritious. You need food to fuel your body for sport and activity each day in the form of three meals and snacks, for example, drinking yogurt, piece of fruit, glass of low fat milk, toast with sandwich spread/jam, fruit scone, fruit smoothie or bowl of cereal with lower fat milk.
- Below there is some practical advice for young people on fuelling their bodies for sport/physical activity. It covers the basics on healthy eating for young people, the basic food and drink items for their kit bag and ideas for light snacks and fluids before and after playing sport/ physical activity. It also gives sample daily menu plans for young people playing different types of sports. **www.safefood.eu/SafeFood/media/SafeFoodLibrary/Documents/Publications/Consumer/safefood-Teen-Sports-Booklet.pdf**



Get the most from your body

1. Never skip meals – especially breakfast
2. Drink plenty of fluids
3. Eat good sources of protein every day
4. Eat lots of carbohydrate foods throughout the day
5. Don't forget fats are important – choose healthier food sources
6. Eat at least five portions of fruit and vegetables each day
7. Include good sources of iron and calcium – you need more of these nutrients than other ages
8. Make sure you enjoy your meals and snacks
9. After intense sport you will be more hungry, don't ignore these hunger signals
10. Get enough rest and sleep – give your body time to grow and recover

Drink plenty of water

We all need between six and eight glasses of water or other fluids each day to keep us alert and properly hydrated. When you're dehydrated you can feel tired or sluggish - not good when you're expected to concentrate in class for hours at a time! Tea and coffee can count as your fluids too, but make sure you also drink things that don't have any caffeine. Water and milk are the best drinks choices.

Did you know?
If you feel thirsty, then you're already a little bit dehydrated. Stay ahead of the game - fill up a bottle of water to take to your training centre with you each day. Remember to drink extra fluids before and after sports. Find out more **www.safefood.eu/Healthy-Eating/Seasonal-features/Drinks.aspx**

Sports drinks

Sports drinks are intended for those engaged in regular high-level and strenuous endurance exercise. They contain high levels of salt which may not be good for your health. Sports drinks can be helpful to those who are doing sport for **more than 60 minutes** in duration. However, like other fizzy drinks and squashes they contain sugar and will contribute to tooth decay. The high sugar content of these drinks bring about sugar rushes in our bodies, which can leave us feeling sluggish after the rush and potentially put us high at risk for developing type 2 diabetes in the long term. Sports drinks are **not something that should be consumed every day outside of sporting activities.** Unless you are doing endurance sport, **water is the best way to rehydrate.**

Stimulant/Energy Drinks

Stimulant or so-called "energy" drinks usually contain a lot of sugar and caffeine. Even the sugar-free versions contain caffeine at a level which can interfere with sleep and cause irritability. They are not a suitable substitute for sleep. Our bodies need sufficient rest to recover each night. The caffeine levels in these drinks vary, but there is often around 80mg of caffeine in a small 250ml can. This is the same as two cans of cola or a small mug of coffee.

While some of their ingredients pose no health concerns, these drinks are **not suitable as a thirst quencher after sports activities**. Caution should also be taken when consuming these drinks with alcohol or medication and they should not be consumed by children or pregnant women. Consumption of stimulant drinks by children under 16 years should be discouraged on the basis of possible temporary behavioural effects of high caffeine intake, such as increased arousal, irritability, nervousness or anxiety.

What about fluid for sport?

- It is important to drink plenty of fluids before, during and after playing sport.
- Water is the best choice of fluid. Unless you're taking part in high-level endurance sports, water is the healthier choice and the best way to replace fluids lost through exercise.
- Don't wait until you feel thirsty to drink, because thirst is a sign that your body has needed fluids for a while.
- If a training session or competition lasts for 50 minutes or longer, consider having an isotonic sports drink to replace fluids.

Sports Supplements

Sports supplements are something that is frequently asked about. For boys protein shakes are popular for 'bulking up' and for girls maybe some herbal preparations. There are concerns about their use by teenagers.

What are they? Are they safe?
Sports supplements come in many forms - drinks, protein powders and bars, liquid meal replacements, creatine, caffeine, herbal preparations, and more.

Do you need them?
No. They won't make you faster, stronger, or more skilful. The bottom line is that sports supplements are not recommended for teenagers. The main reasons for this are:

- they haven't been safety tested on the growing teenage body and for ethical reason won't be,
- the sports supplement industry isn't tightly regulated, so some may contain ingredients not listed on the packaging.

Unlike medicines, sports supplements are not licensed and regulation regarding their production is limited. The control over claims as to how the product works is also poor, for example, products sold as 'fat burners' will claim to cause 'dramatic body fat reduction' and 'reduce fat storage' with little or no evidence to support these claims, and no statement as to possible adverse effects of the product.

The following supplements **are not recommended for anyone under 18 years of age**:

- Protein powders
- Creatine
- Caffeine tablets
- Individual amino acids
- Bicarbonate buffers
- Herbal preparations
- Fat burners
- And many more

As sports supplements could contain ingredients that are not listed on the label, there's a risk some could lead to a positive doping test. Again the supplement industry is not regulated so check with your dietitian or doctor before taking any form of sport supplement. Athletes often use multi-vitamin, iron or calcium supplements. If you include lots of different types of food in your diet, you shouldn't need to do this.

What improves your performance?

- Eating enough to meet your growth and energy needs.
- Drinking enough to replace lost fluids and stay well hydrated.
- Individual talent and improving your sporting skills.
- Planning your training and recovering properly.

INSTRUCTIONS AND ANSWERS: BREAKING A SWEAT WORKSHEET 1

Module 3: Topic 1

Duration	30 minutes
Required	Give each person a printout of the worksheet, and a pen or pencil.
Learning outcomes	Understand the amount of daily physical activity required to be healthy. Understand the different types of physical activity.
Preparation	Discuss why physical activity helps keep you healthy. Describe the different types of physical activity, giving examples.
Instructions	This multiple choice worksheet asks seven questions about physical activity.

Answers

ANSWERS: BREAKING A SWEAT WORKSHEET 1

INTERMEDIATE

Module 3: Topic 1

Choose the right answer from the options below. Circle the correct answer.

1. Moderate intensity activity means...	**(your heart beats faster but you can still carry out a conversation)**	OR	you breathe a lot harder and you cannot carry out a conversation
2. How many minutes of physical activity are needed everyday if you are between 2 and 18 years of age?	none at all	OR	**(at least 60 minutes)**
3. Vigorous intensity activity means you are...	**(breathing much heavier than normal)**	OR	able to talk to lots of people during activity
4. Bone strengthening activity promotes...	**(stronger bones)**	OR	long hair
5. Brisk walking is an example of...	**(moderate activity)**	OR	vigorous activity
6. How many minutes of physical activity are needed every week if you are over 18 years of age?	30 minutes	OR	**(at least 150 minutes)**
7. Push-ups are an example of...	aerobic activity	OR	**(muscle strengthening activity)**

WORKSHEET 1 INTERMEDIATE
BREAKING A SWEAT
Module 3: Topic 1

Choose the right answer from the options below. Circle the correct answer.

1. Moderate intensity activity means...	your heart beats faster but you can still carry out a conversation	OR	you breathe a lot harder and you cannot carry out a conversation
2. How many minutes of physical activity are needed everyday if you are between 2 and 18 years of age?	none at all	OR	at least 60 minutes
3. Vigorous intensity activity means you are...	breathing much heavier than normal	OR	able to talk to lots of people during activity
4. Bone strengthening activity promotes...	stronger bones	OR	long hair
5. Brisk walking is an example of...	moderate activity	OR	vigorous activity
6. How many minutes of physical activity are needed every week if you are over 18 years of age?	30 minutes	OR	at least 150 minutes
7. Push-ups are an example of...	aerobic activity	OR	muscle strengthening activity

ANSWERS:
BREAKING A SWEAT WORKSHEET 1
INTERMEDIATE
Module 3: Topic 1

Choose the right answer from the options below. Circle the correct answer.

1. Moderate intensity activity means...	your heart beats faster but you can still carry out a conversation	OR	you breathe a lot harder and you cannot carry out a conversation
2. How many minutes of physical activity are needed everyday if you are between 2 and 18 years of age?	none at all	OR	at least 60 minutes
3. Vigorous intensity activity means you are...	breathing much heavier than normal	OR	able to talk to lots of people during activity
4. Bone strengthening activity promotes...	stronger bones	OR	long hair
5. Brisk walking is an example of...	moderate activity	OR	vigorous activity
6. How many minutes of physical activity are needed every week if you are over 18 years of age?	30 minutes	OR	at least 150 minutes
7. Push-ups are an example of...	aerobic activity	OR	muscle strengthening activity

WORKSHEET 1 INTERMEDIATE
BREAKING A SWEAT
Module 3: Topic 1

Choose the right answer from the options below. Circle the correct answer.

1. Moderate intensity activity means...	your heart beats faster but you can still carry out a conversation	OR	you breathe a lot harder and you cannot carry out a conversation
2. How many minutes of physical activity are needed everyday if you are between 2 and 18 years of age?	none at all	OR	at least 60 minutes
3. Vigorous intensity activity means you are...	breathing much heavier than normal	OR	able to talk to lots of people during activity
4. Bone strengthening activity promotes...	stronger bones	OR	long hair
5. Brisk walking is an example of...	moderate activity	OR	vigorous activity
6. How many minutes of physical activity are needed every week if you are over 18 years of age?	30 minutes	OR	at least 150 minutes
7. Push-ups are an example of...	aerobic activity	OR	muscle strengthening activity

INSTRUCTIONS: BE ACTIVE SURVEY

Module 3: Topic 1

Duration	4 X 40 minutes – see details below on session content
Required	Flipchart, printout of the survey sheet, arts materials
Learning outcomes	Understand how they can include physical activity in their daily lives.
Preparation	Review the information about the importance of physical activity. Ask them for examples of physical activity they take.

Instructions

Session 1 – create the survey

Ask the group if they are active every day. What amount of time do they spend on physical activity? Prompt the responses by reminding them that walking counts.

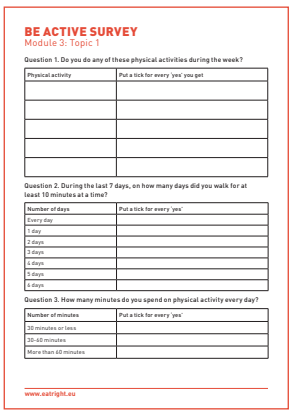
Next ask them to name four or five physical activities people regularly do. List all the answers on the flip chart. Remind them that 60 minutes moderate to vigorous physical activity every day is recommended for good health. 30 minutes of moderate to vigorous physical activity, five days a week, is recommended if they are over 18 years of age. Do they take that amount of physical activity everyday? Do they know anyone who does?

Talk about conducting the survey. Do they think there will be any surprises? They can survey staff, each other and people working or attending the centre. Keep a copy of the physical activity examples they suggested. Download the survey template.

Session 2 – conduct the survey

Print copies of the blank survey. Fill in the physical activity options using the examples recorded on the flip chart. Respondents are asked three questions.

1. What physical activities they do?
   Give a list of five to choose from, taken from examples listed on the flip chart.
2. How many days in the previous week did they walk for more than 10 minutes at a time?
3. How many minutes physical activity they take every day?
   They choose from three options.



BE ACTIVE SURVEY
Module 3: Topic 1

Question 1. Do you do any of these physical activities during the week?

Physical activity	Put a tick for every 'yes' you get

Question 2. During the last 7 days, on how many days did you walk for at least 10 minutes at a time?

Number of days	Put a tick for every 'yes'
Every day	
1 day	
2 days	
3 days	
4 days	
5 days	
6 days	

Question 3. How many minutes do you spend on physical activity every day?

Number of minutes	Put a tick for every 'yes'
30 minutes or less	
30-60 minutes	
More than 60 minutes	

www.eatright.eu

Session 3 – collate the results

Results are collated and graphs are created. You can create pie charts or bar charts using different colours to represent each answer.

Session 4 – discussion

The survey results can be used to stimulate further discussion – did anything surprise them in the results? Do they think people need to change their physical activity habits? If yes, what can they change?

BE ACTIVE SURVEY
Module 3: Topic 1

Question 1. Do you do any of these physical activities during the week?

Physical activity	Put a tick for every 'yes' you get

Question 2. During the last 7 days, on how many days did you walk for at least 10 minutes at a time?

Number of days	Put a tick for every 'yes'
Every day	
1 day	
2 days	
3 days	
4 days	
5 days	
6 days	

Question 3. How many minutes do you spend on physical activity every day?

Number of minutes	Put a tick for every 'yes'
30 minutes or less	
30-60 minutes	
More than 60 minutes	

INSTRUCTIONS: GETTING PHYSICAL ONLINE ACTIVITY DIARY

Module 3: Topic 1

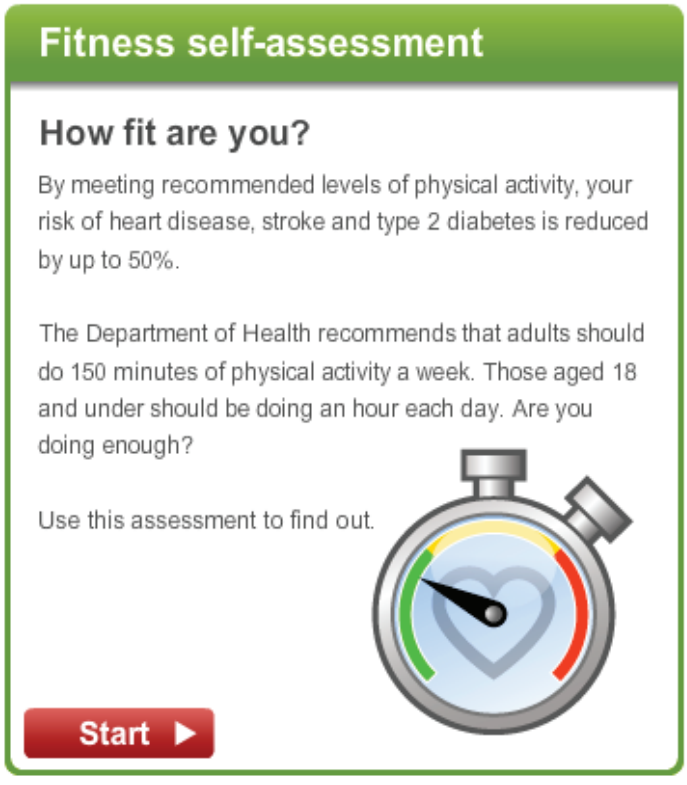
Duration	40 minutes
Required	Access to a computer
Learning outcomes	Understand if they are doing enough physical activity.
Preparation	Review the information provided about different types of physical activity. Ask what type of physical activity they take. Remind them that walking counts. For ideas on how to get active use your smart phone and try out some fitness APPs, visit **www.getirelandactive.ie/get-motivated/popular-apps/**
Instructions	Click on the link: **www.safefood.eu/EatTasteGrowLive/ActivityDiary/index.html** Fill in the diary and discuss the results.

INSTRUCTIONS: HOW FIT ARE YOU? ONLINE QUIZ

Module 3: Topic 1

Duration	20 minutes
Required	Access to a computer
Learning outcomes	Understand if they are doing enough physical activity.
Preparation	Review the information provided about different types of physical activity. Ask what type of physical activity they take. Remind them that walking counts.
Instructions	Click on the link: **www.nhs.uk/Tools/Pages/Fitness.aspx** Complete the quiz and discuss the results.

Fitness self-assessment
Do you think you're doing enough physical activity? This simple assessment will help you understand what the recommended levels are and will assess how close you are to meeting them.



INSTRUCTIONS: CASE STUDIES FOR DISCUSSION

Module 3: Topic 1

Duration	20–30 minutes
Required	Flipchart, pens
Learning outcomes	Understand how to introduce physical activity into their daily lives.
Preparation	Review the information on ways everyone can make their everyday life more physically active.
Instructions	Read the case study to the group before the discussion.

Claire is a 17 year old girl who lives an hour away from the city centre where she is taking part in a training course each day during the week. She takes the bus from outside her house right to the door of the training centre and usually spends all day sitting down in the training room.

Her lunch is one hour long and for most of this time after eating her lunch, she will be sitting down talking to friends. Once the training course is over Claire takes the bus home from outside the centre to the street where she lives. Claire then spends the evening on the couch talking to friends on the phone and watching TV, before she heads to bed.

John is a 16 year old who is currently taking part in a training course in the local centre during the week. At weekends, John usually sleeps in late and spends most of the early afternoon watching TV on the couch.

He may go into town on the bus and meet his girlfriend at the local youth centre and sits watching a movie with a group of friends for a few hours. Afterwards, John usually heads back home on the bus again to meet his friends to play computer games for a few hours on the couch, before he goes home to go to sleep.

Discuss: As a group, get them to discuss ways in which Claire and John could be more physically active throughout their day and write these up on a flip chart.

Ask for further examples of how they could be more physically active in their own daily lives during the week and at weekends.

INFORMATION SHEET
THE ENERGY IN FOODS
Module 3: Topic 2

The energy in food and drinks provides your body with the fuel it needs to keep going. Consuming the right food and drinks, and enough of them, helps you perform to the best of your ability, stay healthy and feel great.

Do you have enough energy?
When we eat and drink, we're putting energy (kilojoules/kilocalories) into our bodies. Our bodies then use up that energy, and the more physical activity we do, the more energy we need. To maintain a stable weight, the energy we put into our bodies must be the same as the energy we use through normal bodily functions and physical activity.

Counting the Calories
Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal). As a guide, the average man needs around 10,500kJ or 2,500kcal a day to maintain a healthy body, and the average woman needs around 8,400kJ or 2,000kcal a day.

Food	kJ	kcal	Activity to burn off	
			Male	Female
Small banana	286	68	**12 minutes** medium walk (3–5 mph)	**14 minutes** medium walk (3–5 mph)
1 pot of lower fat fruit yogurt	462	110	**14 minutes** light cycling <10mph	**17 minutes** light cycling <10mph
2 slices wholemeal toast (62g)	1,226	292	**70 minutes** Bowling	**87 minutes** Bowling
3 mini sausage rolls (128g)	2,066	492	**60 minutes** slow swimming	**70 minutes** slow swimming
Regular plain burger (109g)	1,873	446	**41 minutes** fast dancing (disco)	**50 minutes** fast dancing (disco)
Chicken salad sandwich (128g)	1,588	378	**19 minutes** fast running	**23 minutes** fast running
Cheese burger (130g)	1,831	436	**39 minutes** basketball	**49 minutes** basketball
Quarter pounder with cheese (227g)	2,646	630	**65 minutes** light running/ jogging	**80 minutes** light running/ jogging

www.bhf.org.uk/heart-health/prevention/calorie-calculator.aspx
Based on the average weight of an 18 yr old adult male (83kg/13 stone)/ female (67kg/10.5 stone) in ROI 2011. *ref: Irish Universities Nutrition Alliance (IUNA). (2011). National Adult Nutrition Survey. Summary Report.

What are the energy sources in the diet?

1. **Carbohydrates** are an essential source of energy
2. **Fat** has a lot of energy (kJ/kcal) so have these in small amounts. This also includes foods high in saturated fat, for example, meat fat, cheese, lard, butter, cream, sausages, poultry fat and palm oil
3. **Protein** is an energy source but your body needs to break it down in order to use it as energy
4. **Alcohol** – our bodies get energy straight from alcohol. It contains a lot of energy (kJ/kcal); but it is not a nutrient and is not needed in our diet.

Carbohydrates

These are an important group of foods in the diet. You need to eat more than half of your energy (kJ/kcal) as carbohydrate everyday – so include carbohydrates at every meal and most snack times.

Carbohydrates are the main source of useable energy in the diet. Your body only stores a small amount of carbohydrate so you need to keep your stores topped up.

If you are very active, you need extra servings of carbohydrates each day so you'll have the energy (kJ/kcal) to use during physical activity.

Breads, cereals, potatoes, pasta and rice are the best type of energy (kJ/kcal) for maintaining a healthy weight. Choose wholegrain varieties whenever you can, or eat potatoes with their skins on for more fibre.

Some people think carbohydrate foods are fattening, but gram for gram they contain fewer than half the energy (kJ/kcal) of fat. So carbohydrates themselves are not fattening, it is the fat that's added to them that increases the energy (kJ/kcal) in your diet.

Keep added fat, oils and sauces to a minimum. For example, the small (10g) catering pack of spread you get in cafes is enough for one to two slices of bread. Reduce the amount of fat, salt and sugar foods in your diet as well.

Fat

Everyone needs a certain amount of fat each day to stay healthy. When you think of fat it's important to think of the right type and the right amount.

- Healthy fats are found in foods such as vegetable oils, oily fish – for example, salmon, sardines, mackerel – nuts or avocados.
- Foods containing less-healthy fats include crisps, pastries and fried foods – limit how much of these you eat.

Cut down on unhealthy fats
Use reduced-fat spread made from polyunsaturated or monounsaturated (vegetable) oils, for example, spread made from sunflower oil
Choose lower fat varieties of milk and yogurt
Use mayonnaise and high-fat spreads sparingly
Eat less of the unhealthy fats – confectionery, pastries, pies, cakes and biscuits.

Remember all fats and oils are high in energy (kJ/kcal) so choose reduced-fat spread where possible and use sparingly.

Protein

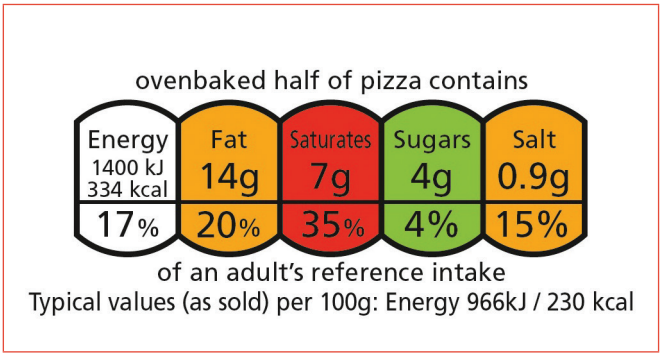
This is an energy source but your body needs to break it down in order to use it as energy. It is not the best source of energy.

Comparing the energy (kJ/kcal) in different foods

Pre-packaged foods

The information found on packs allows you to compare the energy in different foods. Read the label of a few different foods and focus on comparing energy (kJ/kcal) in these foods.

Here's an example of a label that provides the energy (kJ/kcal) value.



Getting the balance right

We all need energy to grow, stay alive, keep warm and be active. The amount of energy we need depends on our age, gender, body size and how active we are. Eating too much or too little can be bad for our health.

The importance of getting the energy balance right

To be a healthy weight we must balance the energy we eat from food and drinks with the energy we use every day through moving. If we take in the right amount of energy to meet our needs, we are said to be in energy balance. We will have enough energy without putting on weight.

If there are some days when we put in more energy than we use, then there should also be days where the opposite is true, so that overall the energy in and energy used remain balanced.

Weight gain occurs when we regularly put more energy into our bodies than we use. Over time, that excess energy is stored by the body as fat. Being overweight leads to health problems, such as heart disease, high blood pressure and type 2 diabetes.

Being underweight can also affect our health. If we take in less energy than we use, this can affect our growth, physical health, mood and behaviour. It is important to be a healthy weight.

To get the balance right, it is important to eat only as much as we need and make healthier choices.

Here are some tips

Eat more foods naturally low in fat
Fruit and vegetables
Starchy foods such as bread, pasta and rice
Lean sources of protein

Eat less
Fats and oils
Foods high in fat, especially saturates, for example fatty cuts of meat, cakes and biscuits
Foods high in sugar, for example, sweets
Foods high in salt, for example, crisps salted popcorn and salted nuts

How do we use our energy?

Physical activity, such as walking, running or playing sport, use energy and balance the energy we get from eating food. Different activities use up different amounts of energy, so if you are physically active, follow the healthy eating guidelines below.

Healthy eating tips for physically active people

1. Eat plenty of starchy foods, such as bread, rice, pasta and cereals, choosing wholegrain versions whenever possible.
2. Eat lots of fruit and vegetables.
3. Have some dairy and protein-rich foods, such as lean meat, fish, poultry, eggs, nuts and pulses.
4. Limit your intake of food and drinks high in fat, sugar and salt.
5. Drink plenty of fluids.

Transform your choices

If you're gaining weight, it's usually because you're eating and drinking more energy (kJ/kcal) than you've been using through physical activity.

To lose weight, you need to tip that energy (kJ, kcal) balance in the other direction. With just a few small changes to your diet, cutting down on energy (kJ/kcal) might not be so hard. So here's a few suggestions to get you started. And remember, each pound of fat = 14,700kJ or 3,500kcal or each 1 kg of fat = 32,340kJ or 7,700kcal, so the more small changes you make, the better.

Just look at how some simple changes can reduce your intake of energy (kJ, kcal).

Some more tips on how to make healthier choices

Cut down the fat

Cutting down on small amounts of fat in your diet can have big benefits for your health. Choosing lower fat varieties whenever you can, trimming the fat off meat and limiting snacks are little steps to eating healthily.

- Swap full-fat milk and yogurts for lower fat varieties. Do not use lower fat varieties of milk for children under two years of age.
- Swap frying food for baking, grilling or roasting.

Swap this:

Battered fish, chips and portion of beans

For this:

Fish fillet, beans, and oven chips

Or better still this:

Fish fillet, salad and potatoes

There are lots more ideas for food swaps on the next page.

FOOD SWAPS

SWAP	FOR THIS	ENERGY SAVING	
Breakfast		**kJ**	**kcal**
Breakfast roll Demi bread roll, two rashers, two black pudding, two sausages, one egg, dollop of ketchup) Total: 5,040kJ/1,200kcal	Portable porridge pot 693kJ/165kcal One medium banana (without skin) 399kJ/95kcal One pot of lower fat fruit yogurt 491kJ/117kcal Total: 1,583kJ/377kcal	**3,494**	**823**
Two fried eggs 765kJ/180 kcal	Two boiled eggs 617kJ/147kcal	**139**	**33**
Four mini sausage rolls 2,033kJ/484kcal	Plain scone and butter (62g) 1,159kJ/276kcal	**874**	**208**
Whole milk 273kJ/65kcal	Lower fat milk (100g) 197kJ/47kcal	**76**	**18**
Croissant 949kJ/226kcal	Bagel (70g) 781kJ/186kcal	**168**	**40**
Bagel 781kJ/186kcal	Two slices wholemeal toast 655kJ/156kcal	**126**	**30**
Butter 311kJ/74kcal	Lower fat spread 147kJ/35kcal	**164**	**39**
Lunch		**kJ**	**kcal**
Hot chicken roll (breaded chicken, cheese and coleslaw) 4,511kJ/1,074kcal	Chicken salad sandwich (chicken, lettuce, mayo and tomato) 1,487kJ/354kcal	**3,024**	**720**
Ham and cheese baguette 4,116kJ/980kcal	Ham and cheese sandwich 1,831kJ/436kcal	**2,285**	**544**
Cheddar cheese 781kJ/186kcal	Lower fat cheddar cheese 538kJ/128kcal	**244**	**58**
Mayonnaise 437kJ/104kcal	Tomato relish 71kJ/17kcal	**365**	**87**
Dinner		**kJ**	**kcal**
Breaded chicken fillet (grilled) 1,890kJ/450kcal	Uncoated chicken fillet (grilled) 630kJ/150kcal	**1,260**	**300**
Deep pan pepperoni pizza 12" 7,526kJ/1,792kcal	Thin pan pepperoni pizza 12" 6,182kJ/1,472kcal	**1,344**	**320**
Deep pan pepperoni pizza 12" 7,526kJ/1,792kcal	Thin pan cheese and tomato pizza 12" 5,342kJ/1,272kcal	**2,184**	**520**
Quarter pounder with cheese 3,020kJ/719kcal	Regular plain burger 1,428kJ/340kcal	**1,592**	**379**
Fried rice 3,053kJ/727kcal	Boiled Rice 2,381kJ/567kcal	**672**	**160**
Roast potatoes 521kJ/124kcal	Boiled potatoes 248kJ/59kcal	**273**	**65**
Potato waffles 739kJ/176kcal	Sweet potato 227kJ/54kcal	**512**	**122**
Sour cream 311kJ/74kcal	Plain yogurt 84kJ/20kcal	**227**	**54**
Snacks		**kJ**	**kcal**
Two chocolate digestive biscuits 743kJ/177kcal	Two plain digestives biscuits 580kJ/138kcal	**164**	**39**
Bag of crisps 811kJ/193kcal	Bag of popcorn 559kJ/133kcal	**252**	**60**
Curry chips 2,201kJ/524kcal	Plain chips 1,625kJ/387kcal	**575**	**137**

Calorie savings are based on estimates only
See more at **www.safefood.eu/Utility/About-us/Campaigns/Operation-Transformation/Transform-your-choices/Calorie-swaps.aspx**

Malnutrition

Malnutrition happens when a person's diet does not contain certain nutrients, i.e. the protein, vitamins and minerals etc. needed to meet the demands of their body. This can affect growth, physical health, mood, behaviour and many of the functions of the body. Malnutrition is usually due to either one of the following:

1. they are **not getting enough nutrients** in their everyday diet to meet their body's needs and usually look extremely thin, for example, a lack of red meat and iron = anaemia; a lack of fibre, whole grains and fruit and vegetables = constipation.

2. they **have an unbalanced diet** – this means **they are eating too much of the wrong foods,** i.e. processed, high-fat and high sugar foods – these foods are lacking important nutrients that the body needs to work properly. Being malnourished does not always mean that you are skinny or hungry.

You can become malnourished if your diet does not contain the right balance of nutrients. It is possible to eat a diet high in energy (kJ/kcal) but containing few vitamins and minerals. This means you can become malnourished, even though you might be overweight or obese.

Symptoms of malnutrition

- Tiredness and sluggishness
- Alterations in mood
- Loss of appetite – disinterest in food and/or fluids
- General 'slowing up,' for example, taking a long time to understand and answer questions
- Condition of hair and skin adversely affected.

How is malnutrition treated?

Dealing with malnutrition will vary depending on what has caused it. The main treatment for people diagnosed with malnutrition is dietary change.

A. Not eating enough food each day?

If you are underweight or experiencing symptoms it is advisable that you go to see your GP.

B. An unbalanced diet?

As previously stated, it is possible to eat a diet high in energy (kJ/kcal) and still become malnourished. It is important to try to eat a healthy balanced diet. This requires a wide range of foods so that your body receives all the nutrients it needs. The practical tips in Module 2 Topic 1 cover the basics of healthy eating, and can help you make healthier choices using the food groups. To eat a balanced diet, you need to combine several different types of foods – from each of the main food groups – in the right amounts so your body gets all the nutrients it needs while maintaining a healthy weight.

Excess weight

Obesity is a term used to describe somebody who is very overweight and with a high degree of body fat. Being obese increases your risk of developing a number of serious and potentially life-threatening diseases, such as:

- Type 2 diabetes
- Heart disease
- Some types of cancer such as breast cancer and colon cancer
- Stroke

In addition, obesity can damage your quality of life and can often trigger depression.

SUITABLE FOR OVER 18 YEARS OF AGE ONLY

If trainers have individuals who are over 18 in the group encourage them to:

1. Measure their waist

2. Calculate their Body Mass Index (BMI)

1. Measuring up

There are different ways your weight can be assessed.

Measuring your waist

This is a useful and simple method to check your fat distribution. Carrying too much weight around your middle increases your risk of developing many conditions including heart disease, high blood pressure and diabetes.

To measure your waist, find the bottom of your ribs and the top of your hips. Measure around your middle at a point midway between these (for many people this will be the tummy button). Make sure that the person is not breathing in when measuring. Visit **www.safefood.eu/Stop-The-Spread.aspx** to work out your own waist measurement.

These measurements refer to adults only. People with very big waists (94cm/37"or more in men and 80cm/32" or more in women) are more likely to develop obesity-related health problems.

If you are at increased risk, make healthy lifestyle changes that will reduce or prevent any further increase. If you are at high risk, then losing weight and reducing your waist size would improve your health. Changing your eating habits and becoming more physically active will also have many benefits.

2. Body Mass Index

Your Body Mass Index (BMI) is a means of finding out if your weight is putting you at increased risk of certain medical conditions. It is based on your height and weight.

You can use the ***safe*food** calculator at **www.safefood.eu/Healthy-Eating/Weight-Loss/BMI-calculator.aspx** to work out your own BMI.

BMI	This means you are
Under 18.5	underweight
18.5–25	a normal weight
25–29	considered overweight
30–40	considered obese
Over 40	considered very obese (known as "morbidly obese")

INFORMATION SHEET
FEEL YOU NEED AN ENERGY BOOST? DITCH THE ENERGY DRINKS!

Module 3: Topic 2

Many teenagers consume energy drinks on a daily basis for a 'quick-fix' of energy but they are not fully aware of their high sugar and caffeine levels. Sugar-containing energy drinks are classified as sugar-sweetened beverages (SSB) which have been linked with weight gain and obesity in adults and children.

Drinks that contain added sugars are high in energy and really don't have many other nutrients. Drinking lots of sugary drinks can lead to weight gain and obesity which increases your risk of heart disease and type 2 diabetes. Water, milk, and diet or sugar-free options are the best choices for drinking regularly throughout the day.

The difference between energy drinks and sport drinks

	Used	Caffeine content	Other ingredients
Energy Drink	Used as a stimulant	Caffeine is usually its main ingredient	Contains other ingredients such as taurine, vitamins, guarana and ginseng
Sports Drink	Used to rehydrate after physical activity	Contains little or no caffeine	Contains other ingredients such as electrolytes, to replace those lost through sweat in physical activity

Fast facts about energy drinks

- Non-alcoholic
- Contain caffeine as a main ingredient
- Contain 80mg of caffeine in a standard 250ml can
- Marketed as a stimulant to improve energy levels and performance

The impact caffeine has on your energy

Caffeine is a stimulant. Drinks containing caffeine can temporarily make us feel more alert or less drowsy. Caffeine affects some people more than others, and the effect can depend on how much caffeine you normally consume. Some energy drinks are high in both sugar and caffeine.

Caffeine and sugar facts

- The level of caffeine in a standard 250ml can of an energy drink is the same as 1.5 bottles (500ml) of standard cola or 2 (200ml) cups of tea
- The most common energy drink size (250ml) contains about 6 cubes of sugar
- Excess sugar can:
  - Lead to weight gain and obesity
  - Increase the risk of heart disease and diabetes
  - Seriously damage your liver, like alcohol
  - Have a negative impact on dental health

To find out more about caffeine download this fact sheet
http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/efsaexplainscaffeine150527.pdf

Get the facts – it's all on the label

Checking the nutrition label on energy drinks, sports drinks and soft drinks such as fruit juices and fizzy drinks can help you make healthier choices. Here are some examples of the energy, caffeine and sugar in drinks.

Beverage per 250ml serving	Energy (kcal)	Caffeine (mg)*	Number of sugar cubes**
Standard energy drink	116kcal	76mg	5
Cola	105kcal	34mg	5
Diet Cola	1kcal	46mg	0
No added sugar squash (100ml concentrate)	7kcal	0mg	0
Milk	129kcal	0mg	2
Water	0kcal	0mg	0

Remember! From 11 years old upwards you should have no more than 30g/day of free sugar. Free sugar is any sugars added, sugar from honey and fruit juice, but does not include sugar from milk or whole fruit/veg. So if you drink one standard energy drink you have almost used up your full allowance for the whole day!

* According to EU Food Labelling Regulation energy drinks which contain more than 150mg/l must be labelled as 'High caffeine content-not recommended for children or breastfeeding women'.

** 1 cube of sugar equals 5g

EASY AND HEALTHY WAYS FOR TEENAGERS TO BOOST THEIR ENERGY

Start the day the right way with these tasty and super quick breakfast options

- 2 slices of wholegrain toast with some peanut butter and banana
- Scrambled egg on wholegrain toast with low-fat spread
- Porridge made with low-fat milk
- Weetabix with low-fat milk
- Prepare a breakfast smoothie to grab and go on busy mornings. Try a sliced banana, 2 tablespoons of oats a cup of low-fat milk

Top-up with these energy boosting snacks

- Air popped popcorn
- Yoghurt – especially low-fat or Greek style
- Fresh fruit – especially bananas
- Small handful of nuts

Get enough sleep

Teenagers need at least 8 hours of sleep a night to maintain energy levels and focus properly during the day.

Be active

Regular exercise increases overall energy levels and improves fitness levels. Aim to get at least 60 minutes of physical activity a day. This doesn't have to be done all at once – spread out your exercise throughout the day.

Sugar & Caffeine in Energy Drinks

safefood

	Rockstar Xdurance	Energise Edge	Monster Energy	Monster Assault	Tiger	Red Bull Energy Drink	Red Bull The Blue Edition	Relentless Origin	Lucozade Energy Original	Boost	Tesco Blue Spark	Red Thunder	Blue Bear	Emerge	Monster Rehab	KX Energy	Mountain Dew
	500ml	440ml	500ml	500ml	250ml	250ml	250ml	500ml	380ml	250ml	250ml	250ml	250ml	250ml	500ml	250ml*	500ml
Sugar	17	14	14	14	7	7	7	6	4	3	3	3	3	3	3	1	0
	69g	55g	55g	55g	28g	28g	28g	24g	17g	12g	12g	12g	12g	11g	11g	4g	0g
Caffeine	2	2	2	2	1	1	1	2	½	1	1	1	1	1	2	1	1
	160mg	160mg	160mg	160mg	80mg	80mg	80mg	160mg	46mg	75mg	75mg	75mg	75mg	75mg	160mg	75mg	76mg

1 teaspoon = 4g sugar

1 cup of espresso = 80mg caffeine

Data collected April 2019

*KX Energy is no longer available in 250ml

Check before you choose

Energy drinks are not suitable:

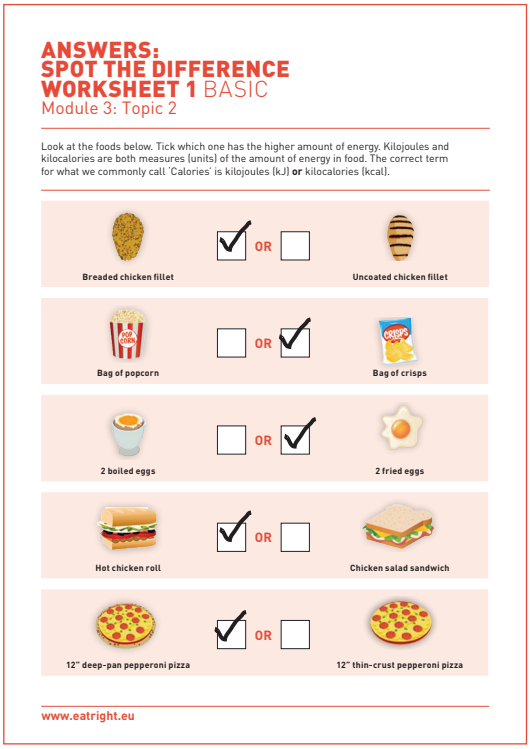
- for children under 16 years of age
- for rehydration after sport or exercise
- as a mixer with alcohol
- for pregnant or breast-feeding women

INSTRUCTIONS AND ANSWERS: SPOT THE DIFFERENCE WORKSHEET 1

Module 3: Topic 2

Duration	30 minutes
Required	Give each person a printout of the worksheet, and a pen or pencil.
Learning outcomes	Understand that different foods provide different amounts of energy.
Preparation	Discuss that foods have different amounts of energy. Explain that the energy is measured in kJ/kcal. Explain how we use that energy in everyday life.
Instructions	The basic worksheet shows images of food, presented in sets of two. They identify the food that has the highest number of kilojoules/kilocalories. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal). The advanced worksheet lists foods. They are presented in sets of two. They identify the food that has the highest amount of energy. They are asked why they think it is higher in energy.

Answers



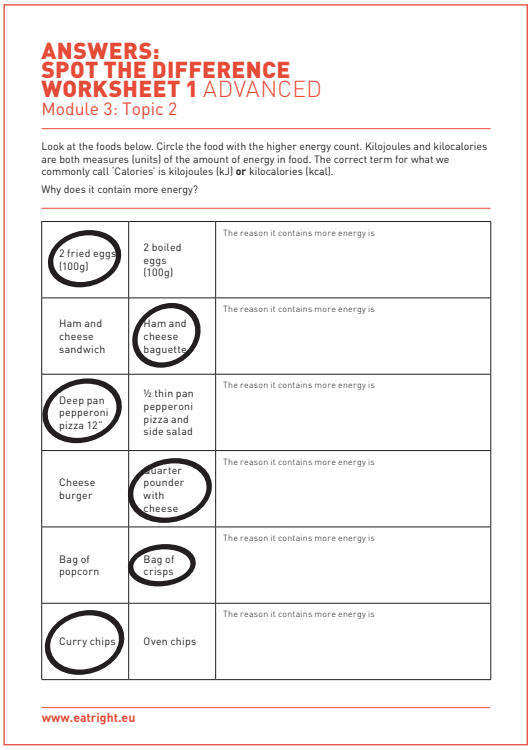
ANSWERS: SPOT THE DIFFERENCE WORKSHEET 1 BASIC

Module 3: Topic 2

Look at the foods below. Tick which one has the higher amount of energy. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Breaded chicken fillet	☑ OR ☐	Uncoated chicken fillet
Bag of popcorn	☐ OR ☑	Bag of crisps
2 boiled eggs	☐ OR ☑	2 fried eggs
Hot chicken roll	☑ OR ☐	Chicken salad sandwich
12" deep-pan pepperoni pizza	☑ OR ☐	12" thin-crust pepperoni pizza

www.eatright.eu



ANSWERS: SPOT THE DIFFERENCE WORKSHEET 1 ADVANCED

Module 3: Topic 2

Look at the foods below. Circle the food with the higher energy count. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Why does it contain more energy?

(2 fried eggs (100g))	2 boiled eggs (100g)	The reason it contains more energy is
Ham and cheese sandwich	(Ham and cheese baguette)	The reason it contains more energy is
(Deep pan pepperoni pizza 12")	½ thin pan pepperoni pizza and side salad	The reason it contains more energy is
Cheese burger	(quarter pounder with cheese)	The reason it contains more energy is
Bag of popcorn	(Bag of crisps)	The reason it contains more energy is
(Curry chips)	Oven chips	The reason it contains more energy is

www.eatright.eu

WORKSHEET 1 BASIC
SPOT THE DIFFERENCE
Module 3: Topic 2

Look at the foods below. Tick which one has the higher amount of energy. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Breaded chicken fillet

☐ OR ☐

Uncoated chicken fillet

Bag of popcorn

☐ OR ☐

Bag of crisps

2 boiled eggs

☐ OR ☐

2 fried eggs

Hot chicken roll

☐ OR ☐

Chicken salad sandwich

12" deep-pan pepperoni pizza

☐ OR ☐

12" thin-crust pepperoni pizza

WORKSHEET 1 ADVANCED
SPOT THE DIFFERENCE
Module 3: Topic 2

Look at the foods below. Circle the food with the higher energy count. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Why does it contain more energy?

2 fried eggs (100g)	2 boiled eggs (100g)	The reason it contains more energy is
Ham and cheese sandwich	Ham and cheese baguette	The reason it contains more energy is
Deep pan pepperoni pizza 12"	½ thin pan pepperoni pizza and side salad	The reason it contains more energy is
Cheese burger	Quarter pounder with cheese	The reason it contains more energy is
Bag of popcorn	Bag of crisps	The reason it contains more energy is
Curry chips	Oven chips	The reason it contains more energy is

INSTRUCTIONS AND ANSWERS: THE ENERGY TO BE ACTIVE WORKSHEET 2

Module 3: Topic 2

Duration	30 minutes
Required	Give each person a printout of the worksheet and a pen or pencil.
Learning outcomes	Understand that the energy in foods varies and can fuel different activities.
Preparation	Discuss that foods have different amounts of energy. Explain that the energy is measured in kilojoules/kilocalories and how we use that energy in everyday life. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).
Instructions	The worksheet lists six foods and provides the energy count for each. Two options are given for physical activities. They choose which physical actvity matches the food in terms of energy.

Answers

ANSWERS: THE ENERGY TO BE ACTIVE WORKSHEET 2 ADVANCED

Module 3: Topic 2

Look at the foods below. The amount of energy (kJ/kcal)contained in each is shown. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Circle the activity that uses that amount of energy.

FOOD	Energy		Activity 1	Activity 2
	kJ	kcal		
3 mini sausage rolls	1,512	360	1 hour of dancing	10 minutes of dancing
2 fried eggs	756	180	30 minutes of walking	1 hour of walking
Deep pan pepperoni pizza 12"	7,526	1,792	3 hours of jogging	1 hour of jogging
Quarter pounder with cheese (227g)	3,020	719	1 hour of aerobics	2 hours of aerobics
Bag of crisps	810	193	1 hour of football	30 minutes football
Curry chips	2,200	524	2 hours of walking	1 hour of walking

www.eatright.eu

WORKSHEET 2 ADVANCED
THE ENERGY TO BE ACTIVE
Module 3: Topic 2

Look at the foods below. The amount of energy (kJ/kcal) contained in each is shown. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Circle the activity that uses that amount of energy.

FOOD	Energy			Activity 1	Activity 2
	kJ	OR	kcal		
3 mini sausage rolls	1,512	OR	360	1 hour of dancing	10 minutes of dancing
2 fried eggs	756	OR	180	30 minutes of walking	1 hour of walking
Deep pan pepperoni pizza 12"	7,526	OR	1,792	3 hours of jogging	1 hour of jogging
Quarter pounder with cheese (227g)	3,020	OR	719	1 hour of aerobics	2 hours of aerobics
Bag of crisps	810	OR	193	1 hour of football	30 minutes football
Curry chips	2,200	OR	524	2 hours of walking	1 hour of walking

INSTRUCTIONS: COUNTING KJ/KCAL WORKSHEET 3

Module 3: Topic 2

Duration	30 minutes
Required	Give each person a printout of the worksheet, and a pen or pencil.
Learning outcomes	Understand that men and women have different energy requirements.
Preparation	Discuss that foods have different amounts of energy, measured in kilojoules/ kilocalories. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal). Explain that the average man needs 10,500 kJ/2,500 kcal a day and the average woman needs 8,400 kJ/2,000 kcal a day.
Instructions	Suitable for advanced level. The worksheet lists 12 foods and 6 drinks with their energy values. They create a balanced diet for a man OR a woman, based on the food choices provided.

WORKSHEET 3 ADVANCED COUNTING KJ/KCAL

Module 3: Topic 2

Using the foods listed below, feed either a man (10,500kJ/2,500kcal) or a woman (8,400kJ/2,000kcal) for one day.

Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

FOOD	ENERGY		
	kJ	OR	kcal
Quarter pounder with cheese	3,020	OR	719
Two Boiled eggs	617	OR	147
Two fried eggs	756	OR	180
Plain yogurt	84	OR	20
Two plain digestive biscuits	580	OR	138
Two slices of white bread	672	OR	160
Boiled Rice (323g)	2,381	OR	567
One Apple	222	OR	53
Two slices of wholemeal toast	1,226	OR	292

FOOD	ENERGY		
	kJ	OR	kcal
Hot chicken roll (breaded chicken, cheese and coleslaw)	4,510	OR	1,074
Ham and cheese sandwich	1,831	OR	436
Uncoated chicken fillet (grilled) (100g)	630	OR	150
Deep pan pepperoni pizza 12"	7,526	OR	1792
Boiled potatoes (85g)	248	OR	59
Plain chips (165g)	1,615	OR	387
Carrots (128g)	218	OR	52
Regular plain burger (109g)	1,873	OR	446
Bag of plain popcorn (30g)	559	OR	133

DRINK	ENERGY		
	kJ	OR	kcal
Whole milk (100ml)	273	OR	65
Semi-skimmed milk (100ml)	197	OR	47
Tea with milk	92	OR	22

DRINK	ENERGY		
	kJ	OR	kcal
Sugary fizzy drink (standard 330ml can)	584	OR	139
Water	0	OR	0
Orange juice (100ml)	185	OR	44

INSTRUCTIONS AND ANSWERS: HIGHER OR LOWER QUIZ

Module 3: Topic 2

Duration	30 minutes
Required	Give each group a printout of the worksheet, and a pen or pencil.
Learning outcomes	Understand that foods have different amounts of energy.
Preparation	Discuss that foods have different amounts of energy. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal). Explain that the energy amount is a combination of the food, what was added to it and how it was cooked.
Instructions	Groups of two or maximum three people look at the foods listed. The foods are listed in sets of two. They are given the energy count for one of the foods in each set. They choose the kJ/kcal count of Food 2.

ANSWERS: HIGHER OR LOWER QUIZ

Module 3: Topic 2

Look at the foods below. The energy count is given for one. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Circle the kJ/kcal count for Food 2.

Food 1	Food 2	kJ/kcal Option 1	kJ/kcal Option 2
Roast potatoes (85g) **520kJ/124kcal**	Boiled potatoes (85g)	248kJ/59kcal	748kJ/178kcal
Sweet potato (62g) **226kJ/54kcal**	Potato waffles (2–90g)	739kJ/176kcal	168kJ/40kcal
Cheese burger (130g) **1,730kJ/412kcal**	Quarter pounder with cheese (227g)	3,012kJ/719kcal	920kJ/219kcal
Deep pan pepperoni pizza 12" **7,526kJ/1,792kcal**	Thin pan cheese and tomato pizza 12"	8,282kJ/1,972kcal	5,342kJ/1,272kcal
Curry chips (315g) **2,200kJ/524kcal**	Plain chips (165g)	1,625kJ/387kcal	4,187kJ/997kcal
Bag of popcorn (30g) **559kJ/133kcal**	Bag of crisps (37g)	810kJ/193kcal	643kJ/153kcal
Boiled rice (323g) **2,381kJ/567kcal**	Fried rice (359g)	1,373kJ/327kcal	3,053kJ/727kcal
2 chocolate digestive biscuits (36g) **743kJ/177kcal**	2 plain digestive biscuits (30g)	580kJ/138kcal	873kJ/208kcal

www.eatright.eu

HIGHER OR LOWER QUIZ

Module 3: Topic 2

Look at the foods below. The energy count is given for one. Kilojoules and kilocalories are both measures (units) of the amount of energy in food. The correct term for what we commonly call 'Calories' is kilojoules (kJ) **or** kilocalories (kcal).

Circle the kJ/kcal count for Food 2.

Food 1	**Food 2**	**kJ/kcal Option 1**	**kJ/kcal Option 2**
Roast potatoes (85g) **520kJ/124kcal**	Boiled potatoes (85g)	248kJ/59kcal	748kJ/178kcal
Sweet potato (62g) **226kJ/54kcal**	Potato waffles (2–90g)	739kJ/176kcal	168kJ/40kcal
Cheese burger (130g) **1,730kJ/412kcal**	Quarter pounder with cheese (227g)	3,012kJ/719kcal	920kJ/219kcal
Deep pan pepperoni pizza 12" **7,526kJ/1,792kcal**	Thin pan cheese and tomato pizza 12"	8,282kJ/1,972kcal	5,342kJ/1,272kcal
Curry chips (315g) **2,200kJ/524kcal**	Plain chips (165g)	1,625kJ/387kcal	4,187kJ/997kcal
Bag of popcorn (30g) **559kJ/133kcal**	Bag of crisps (37g)	810kJ/193kcal	643kJ/153kcal
Boiled rice (323g) **2,381kJ/567kcal**	Fried rice (359g)	1,373kJ/327kcal	3,053kJ/727kcal
2 chocolate digestive biscuits (36g) **743kJ/177kcal**	2 plain digestive biscuits (30g)	580kJ/138kcal	873kJ/208kcal

INSTRUCTIONS: EAT WELL TO STAY WELL GROUP DISCUSSION

Module 3: Topic 2

Duration	40 minutes
Required	Pen and flip chart
Learning outcomes	Understand that eating too much or too little food impacts on your health.
Preparation	Discuss the importance of a healthy balanced diet and that this provides your body with the fuel it needs to keep you going. Explain that eating too little or eating too much can lead to problems with your health. Talk about obesity and malnutrition.

Instructions

Ask if the following statements are true or false:

If we take in more energy than we use, we may put on weight	**True**
If we take in less energy than we use, we may loss weight	**True**
If you are overweight you can't be malnourished	**False**

Now ask if they know where we get the energy we use – prompt a discussion about the energy different types of food and drink give our bodies. Are some sources of energy better than others?

Ask them to compare

- a banana to a chocolate bar
- a sugary drink and a fruit juice
- fried chips and oven chips

What's the difference between the energy they provide?

Ask them to discuss how they feel when they have skipped a meal – tired, cranky? Why does that happen?

Ask them if they were really hungry, what would they do to fill up. Write up the answers. Does the full-up feeling last for a few hours or go away quickly. Does the food they choose affect that?

Conclude by reviewing the foods listed on the flip chart. Ask what other food they could eat to get the energy they need.