Zig Zag Education

Food and Nutrition KS3

Starters and Plenaries for KS3 Cooking and Nutrition

zigzageducation.co.uk

POD 8882

Contents

Teacher's Introduction

This pack of *Starters and Plenaries* is designed to help you deliver the content of N
Design and Technology Programmes of Study – Cooking and Nutrition Key Stage 3

The starter worksheets aim to either introduce new ide topics or trigger cr
are to summarise the basic concept of the less n nd p to take the main mess

A range of activities has been ted in this resource which incorporates indepe
and which will be en s r e students. The varied nature of the activities pr
range of le ty s to be developed, including visual, verbal, auditory and kin

A Content Table has been provided to identify the main topics each activity cover
activities are considered starters and which plenaries. However, the identificatio
plenary is only a suggestion and you might find that some of the activities are inte

Each worksheet should take a maximum of 10 to 15 minutes, which makes it easy

Content Table and Instruc

This table will enable you to pick and ch[illegible] starters or plenaries relevant to the topic you are t[illegible] starter or a plenary, you should b[illegible] ware that many starter and plenary tasks may be interchan[illegible] not work so well as a st[illegible] plenary. It is at the teacher's discretion when and how to use ea[illegible]

Activity number	Activity title	Topic
		Diet, nutrition and health
1.	Functional Match-up	Functions of macronutrients
2.	Diamond Energy	Sources of energy
3.	Energy Post-it Notes	Energy needs
4.	Calorie Counter	Energy in food
5.	Test the Waters Rebus	The m[illegible]an[illegible]g o[illegible]ter for health: functions of water
6.	Dehydration Diary	Th[illegible]eaning of water for health: effects of dehydration
7.	Meal Designer	The Eatwell Guide
8.	So[illegible]r's	Sources of nutrients in a diet
9.	Te[illegible]nowledge	The eight tips for healthy eating
10.	The Unbalanced Crossword	Malnutrition and obesity
11.	Social Media Page	Physical activity and its meaning for health
		Where food comes from
12.	Piece-ful Food	Where food comes from
13.	Around the World in 26 Letters	Origin of food
14.	It's a Season for Noughts and Crosses	Sea[illegible]l f[illegible]
15.	True or False	[illegible]Methods of farming
16.	Environmenta[illegible]on[illegible]Map	Food and the environment
17.	Th[illegible]s o[illegible]Food Factory	Food additives
18.	Tas[illegible]grams	British cuisine

		Factors which influence food choice
19.	Food Choices Quiz Cube	Fa[illegible]hich influence food choice
20.	Cheaping in	Calculating the cost of a dish
21.	C[illegible]afe	Vegetarian and vegan diets
22.	True Colours of Vegetarianism	Vegetarian and vegan diets
23.	(Un)healthy Choices	Adjusting and modifying recipes to meet different dietary needs
24.	Uncle Sage Advice	Adjusting and modifying recipes to meet different dietary needs
25.	Hot Potato	Food allergies
26.	(Not So Secret) Fact Files	Food intoleranc[illegible]
27.	How Much Do You Know?	Inte[illegible]ti[illegible] fo[illegible]abels – logos and signs
28.	Questionable Label	Ar[illegible]ing and interpreting food labels
		Cooking and food preparation
29.	To[illegible]he [illegible] Food Game	Kitchen equipment
30.	Ho[illegible]?	Food safety
31.	Handy Hygiene	Health and safety practices
32.	Hot Seat	Storage conditions
33.	Ready, Steady, Draw!	Food preparation
34.	Master of Creation	Cooking of food
35.	Career Paths Rebus	Jobs in the [illegible]ry

Activity 1 – Functions of Macronutrients – F

Teacher's Notes

	Starter activity – Match-up
Aim of the activity	To introduce the vari[illegible]s of macronutrients in the h
Teacher's instructions	Copy th[illegible] worksheet to allow one per person. Allow students 10 minutes to complete the activity.

Answers

Proteins:

- Build and repair cells
- Build important hormones
- Improve digestion by working as enzymes (biological catalysts) to break dow
- Act as an emergency (secondary) source of energy (after fats and carbohydra
- Help build antibodies to improve immunity

Fats:

- (Primary) source of energy
- Help provide insulation to protect us from cold
- Help dissolve vitamins
- Help build important hormones
- Help protect vital organs

Carbohydr[illegible]

- (Primar[illegible]rce of energy
- Build the DNA (genetic material) in cells
- Build important hormones

Protein sparer means that carbohydrates/fats are used as a primary source of ene
can be used for other functions (not providing energy), like repairing and building

Functional Match-up

Food is made of proteins, fats and carbohydrates. These chemicals are kn
we provide them in large amounts with diet. Proteins, fats and carbohydr
texture and taste of the food, but they also play important roles in the hu
you know about them!

Match up the macronutrients below with the functions they play in the hu
a classmate check if they are correct!

PROTEINS

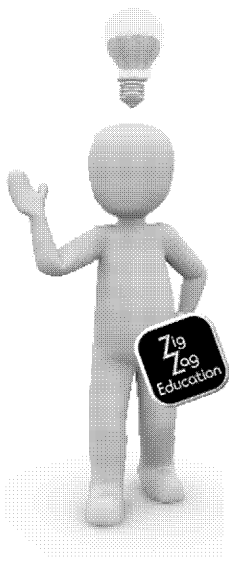
FATS

CARBOHYDRATES

Sour
Help provide insula
Help di
Help build
Help build the DN
Help build i
Improve digestion by v catalysts) to b
Act as an emer
Help build antibo
Helps pr

Bonus question:

Carbohydrates are often called 'protein sparers'. What do you think this m



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Activity 2 – Sources of Energy – Dia

Teacher's Notes

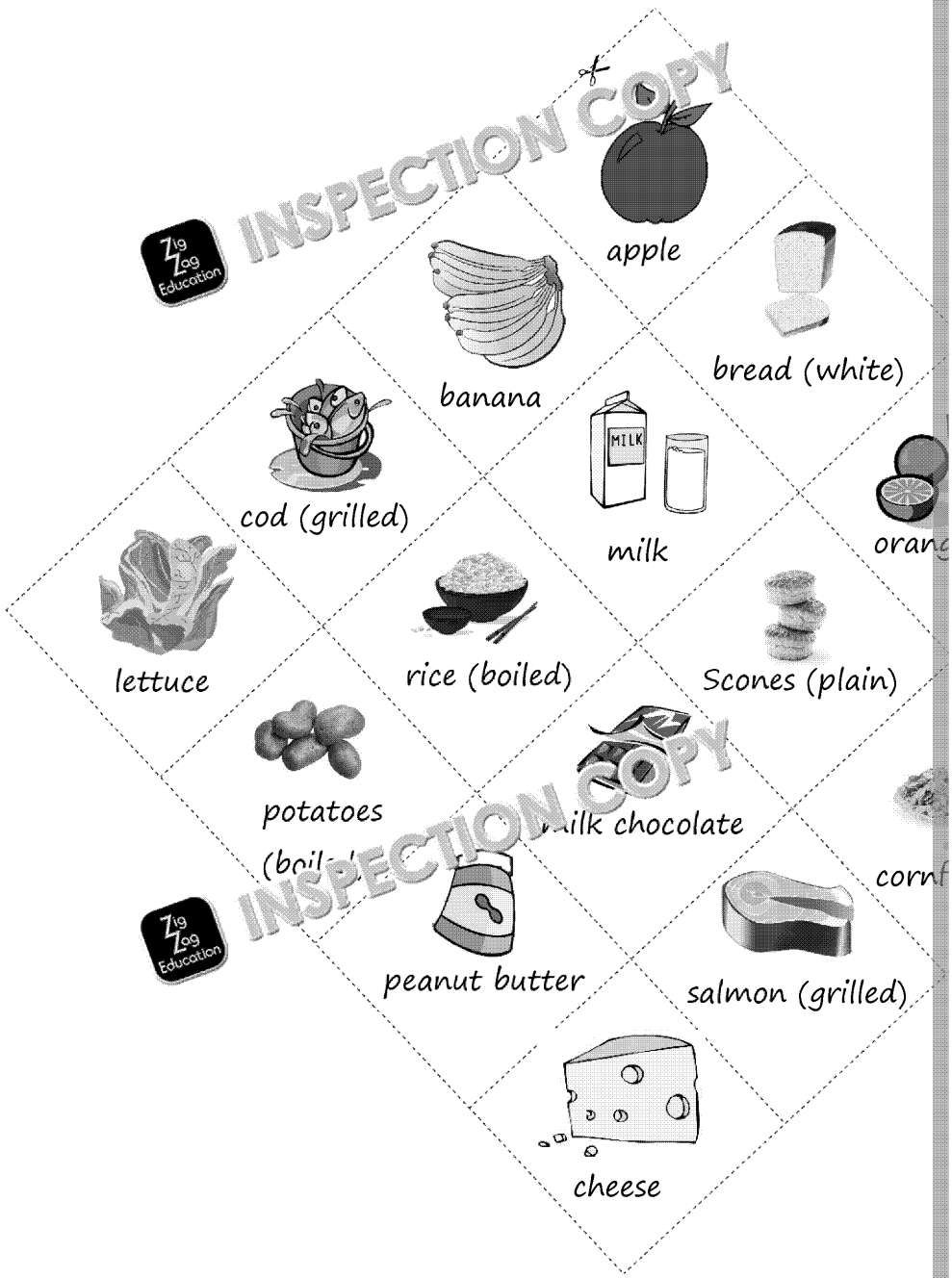
	Starter activity: Diamonding
Aim of the activity	To introduce foods which provide different amounts of energy
Teacher instructions	Split students into pairs. Copy the labels on the next page acc pair. In each pair, students should cut out the labels and then try to Foods which provide the least calories should be placed at the provide the most calories should be placed on top of the diam The pair which is the closest to the answers, wins. Continue the lesson to discuss the importance of calories for calories in a diet.

Answers

Peanut butter	60
Chocolate (milk)	519 kcal /
Cheddar cheese	416 kcal /
Cornflakes (plain)	376 kcal
Scones (plain)	352 kcal
Bread (white, average)	236 kcal
Salmon (grilled)	210 kcal /
Ice cream (vanilla)	169 kcal /
Rice (boiled)	145 kcal /
Cod (grilled)	98 kcal /
Bananas (raw)	81 kc
Potatoes (boiled)	74 kc
Milk (whole)	63 kc
Apples	51 kcal
Orange juice	33 kcal
Lettuce	11 kcal /

Source: **htt[illegible]efood.foodafactoflife.org.uk/**

Labels

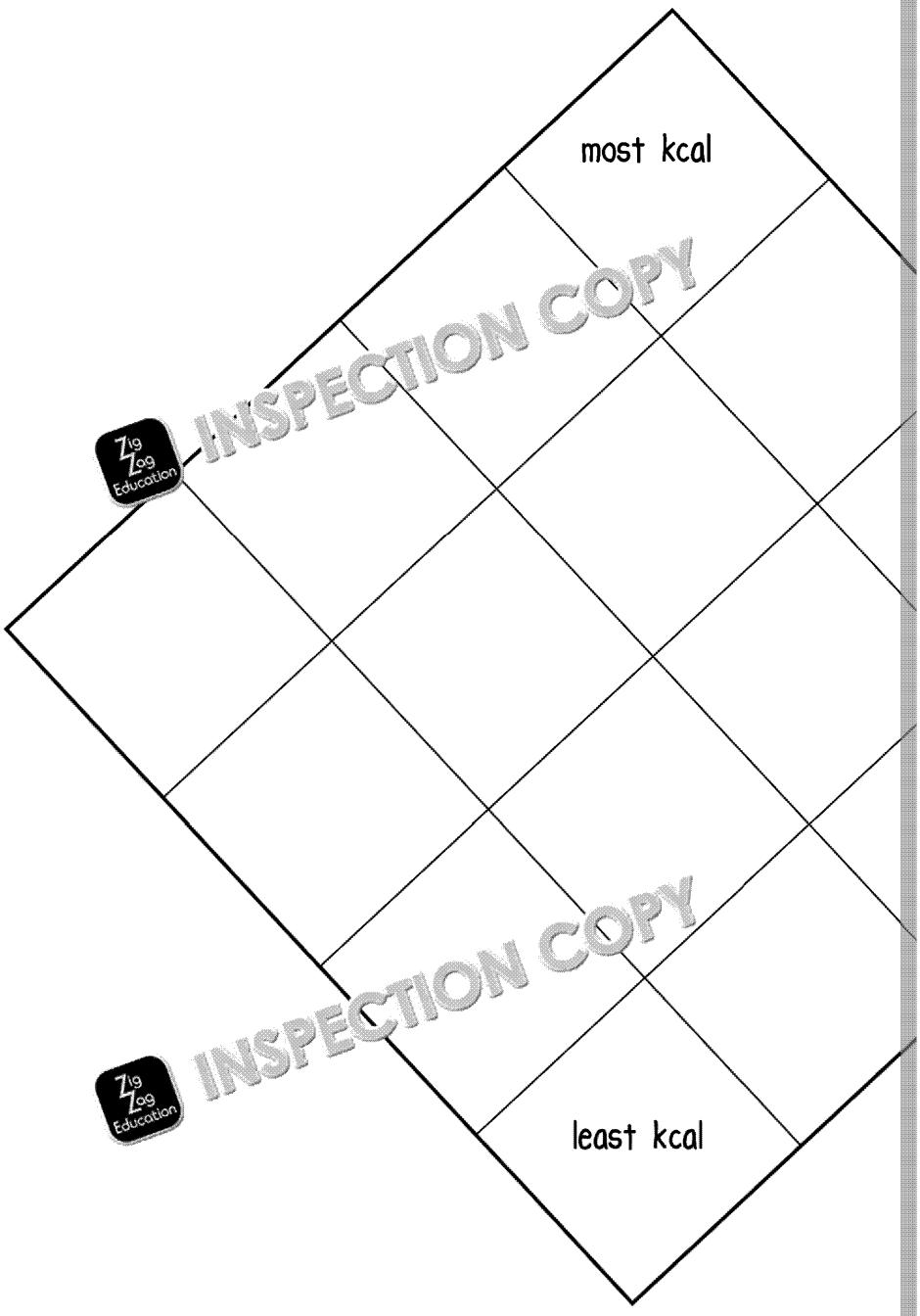


Diamond Energy

The food we eat provides us with energy, which is necessary to carry out a functions and activities – from breathing and maintaining a stable body t dressing up, showering, hoovering and cycling.

Energy is measured in kilocalories [kcal] or kilojoules [kJ]. 1 kcal equals 4. fats, proteins and carbohydrates are called macronutrients. The food mixture of all of them, so the energy value of different foods varies. If a fo energy in a small amount, we call it energy-dense. Can you tell which foods are energy-dense?

Get into groups of four. Your teacher will provide you with a set of labels. Your task is to arrange them in the diamond below so that those which provide the least energy (in 100 g) are at the bottom, and those which provide the most energy (in 100 g) are at the top of the diam



Activity 3 – Energy Needs – Energy P

Teacher's Notes

	Starter activity: Post-it notes
Aim of the activity	To introduce the idea of energy needs and various factors that
Teacher instructions	Prepare Post-it notes in two colours (e.g. yellow and ora Give each pupil a couple of Post-it cards in different colours a factors that increase energy needs on yellow cards, and those requirements on orange cards. Then ask them to stick the Po how various factors affect the energy needs of individuals.

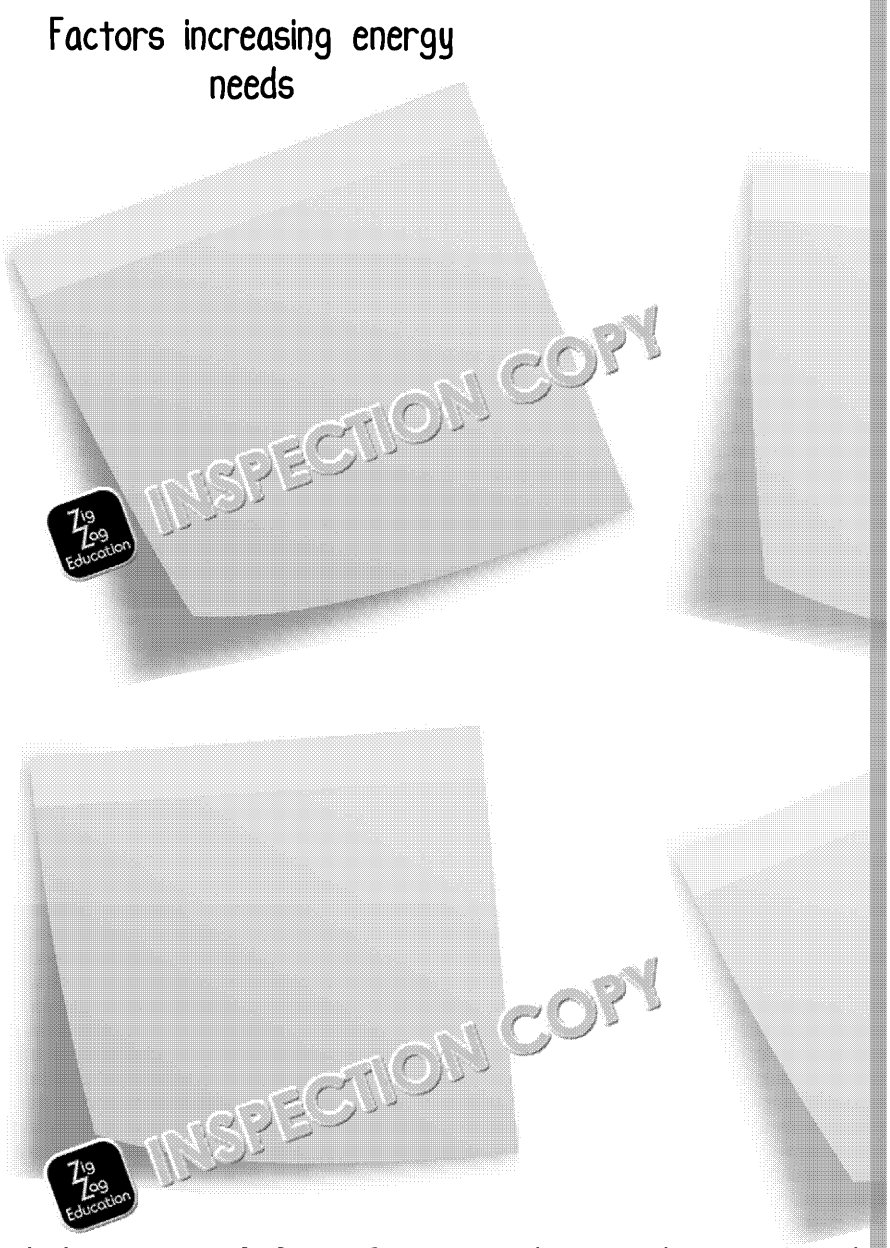
Answers

Factors increasing energy needs	Factors decr
Male sex	Female sex
Body composition: more muscles	Body composition: mo
Life stage: growth spurt (childhood, adolescence)	Life stage: adulthood, o
Pregnancy (last trimester) and lactation	-
Body weight and height (the larger the person, the higher the needs)	Body weight and height on, the lower the n
Genetics: fast metabolism	Genetics: slow metabol
Occupation: physical work/job	Occupation: sitting/non
Lifestyle: high physical activity	Lifestyle: sedentary
Health state: certain forms of cancer, cystic fibrosis, extensive burns and scalds	Health state: obesity, o

Energy Post-it Notes

We all need a lot of energy to live. It is used to keep us warm, to make the
and make the guts pass food through. It is needed by our brain, muscles
each person needs a different amount of energy – that's how it's so difficu
that would fulfil the requirements of all people [illegible]! Do you know w
people?

Grab some Post-it notes in [illegible] different colours. On one colour (e.g. yello
you think increase energy needs (cause people to need more calories). O
write down factors which decrease energy needs (cause people to need le
Post-its on the whiteboard or wall in the class and see what others came u



We speak about **energy balance** if a person's diet provides as many calor
a person consumes too much, there is surplus energy, which is stored in t
tissue, causing **weight gain**. If a person eats too little, the body uses the f
causing **weight loss**.

Activity 4 – Energy in Food – Calori

Teacher's Notes

Starter activity: Calcu[illegible]g the energy va	
Aim of the activity	To calculate the en[illegible]y [illegible]ferent foods, measure and weigh
Teach[illegible] instructi	Split t[illegible]a[illegible]ed pairs. Copy the student's worksheet accor[illegible] k[illegible]scale, measuring jug and food ingredients. Allow students 10 minutes to plan their snack, and another 10 Students may use this activity as practice and then redo it usin[illegible] available in class.

Answers

Ensure that the students know how to calculate the energy value of food.

Ensure that students weigh and measure their ingredients correctly.

Lower-ability students may benefit from using a database or food table

http://explorefood.foodafactoflife.org.uk/

https://www.nhs.uk/Tools/Pages/Calorie-checker.aspx

https://www.verywellfit.com/recipe-nutrition-a[illegible]a[illegible]er-4157076

https://www.myfitnesspal.com/re[illegible]e/[illegible]ulator

http://nutritiondata.s[illegible]/[illegible]nd/myrecipes/welcome?returnto=/myn[illegible]

Calorie Counter

Food is a source of energy, which is necessary to carry out all life activities much energy actually IS in food? Today you're going to find out!

Get into pairs. Using the data below, plan a snack which will provide 100 can you use and in what amounts? Once you know that, weigh and meas what 100 kcal really looks like!

Tip: how to count how many calories are in food?

Most data and food tables give information on how many calories a food. But what if there is less or more than 100 grams?!

To calculate this, use the equation below:

$$\text{energy in a portion of food (in grams)} = \frac{\text{portion size (in grams)} \times \text{number}}{100 \text{ gra}}$$

For example, if 100 g of white bread provides 219 kcal, then 35 g (standar

$$\text{slice of bread} = \frac{35 \text{ grams} \times 219 \text{ kcal}}{100 \text{ grams}} = 76.65 \text{ kc}$$

Food	kcal (per 100 g)	Food	kcal (per 100 g)	
white bread	219	ham	107	ve fa
cream cracke	445	Cheddar	416	ch nu
naan bread	285	cottage cheese	103	M
malted bread	238	tomato	14	
scones	346	lettuce	11	fr
pitta bread	255	avocado	190	
rice cakes	358	red pepper	21	h
Other:		Other:		
Other:		Other:		

My calculations:

Activity 5 – The Importance of Water for H
Water – Test the Waters Reb

Teacher's Notes

	ter activity: Rebus
Aim of the activity	To i[illegible] the importance of water for health.
Teache[illegible] instructions	Copy the student's worksheet to allow one per person. Allow students 5 minutes to complete the activity, and then ch[illegible] managed to guess all of the puzzles. Then allow them 5 to 10[illegible] second part of the activity.

Answers

1. **Stable temperature**
   [Stable + Temple (minus the L) + Hat (where H equals R) + ure]
2. **Removing toxins**
   [Lemon (where L equals R and N equals V) + King (minus the K) + TO +Pins
3. **Aiding digestion**
   [Rain (minus the R and the N) + Ring (where R equals D) + Dice (where C equa

Other functions of water could include:

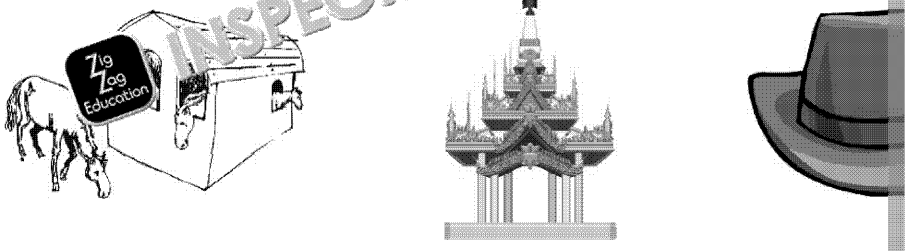
- dissolving ingredients in f[illegible]
- making sw[illegible]lov[illegible]
- making [illegible]tric juices
- transporting nutrients around the body
- taking part in chemical reactions

Test the Waters Rebus

There is no life without water. It is needed in the human body for a numb
functions – but what are they?

Solve these rebus puzzles to find out!

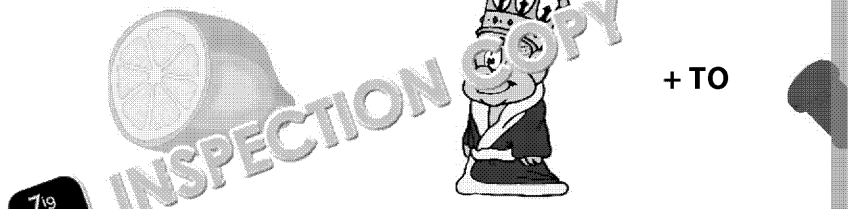
1.



- L H =

Answer: .....

2.



L = R N = V - K + TO

Answer: .....

3.

- R, - N C = G

Answer: .....

Can you think of any other function of water in the body? Draw your own
classmate to complete!

Answer: .....

Activity 6 – The Importance of Water for H
Dehydration – Dehydration Di

Teacher's Notes

Plenary activity: Dear diary	
Aim of the activity	To s[illegible] knowledge about the importance of water and
Teacher instructions	Copy the student's worksheet accordingly to allow one per pe Allow students 10 minutes to write a short diary note on the the answers and analyse them to discuss in the next lesson.

Answers

The answers should refer to various symptoms of dehydration, from mild to mor

Answers could include:

Mild symptoms:

- increased thirst
- dry mouth
- lack of saliva
- decreased urination
- dark urine
- dark patches under the eyes

Moderate symptoms:

- constip
- dry, wrinkled skin
- sunken eyes
- muscle cramps
- low blood pressure

Severe symptoms:

- feeling very tired
- dizziness when standing
- weak and rapid pulse
- seizures
- heat stroke
- loss of consciousness

Dehydration Diary

No living organism can survive without water – be it a bacterium, a flowe
Water is crucial for a number of life processes – it helps to maintain a stab
remove toxins from the body, enable digestion by dissolving nutrients fr
reactions within cells, and many others. A healthy adult person should dr
day, as drinking too little can cause dehydration.

Last week you went for a trip to Africa. Naturally, there was no water in th
drinking too little. Write a diary entry to describe how you felt and what s
you noticed during your trip.

Dear diary,

Activity 7 – The Eatwell Guide – Mea

Teacher's Notes

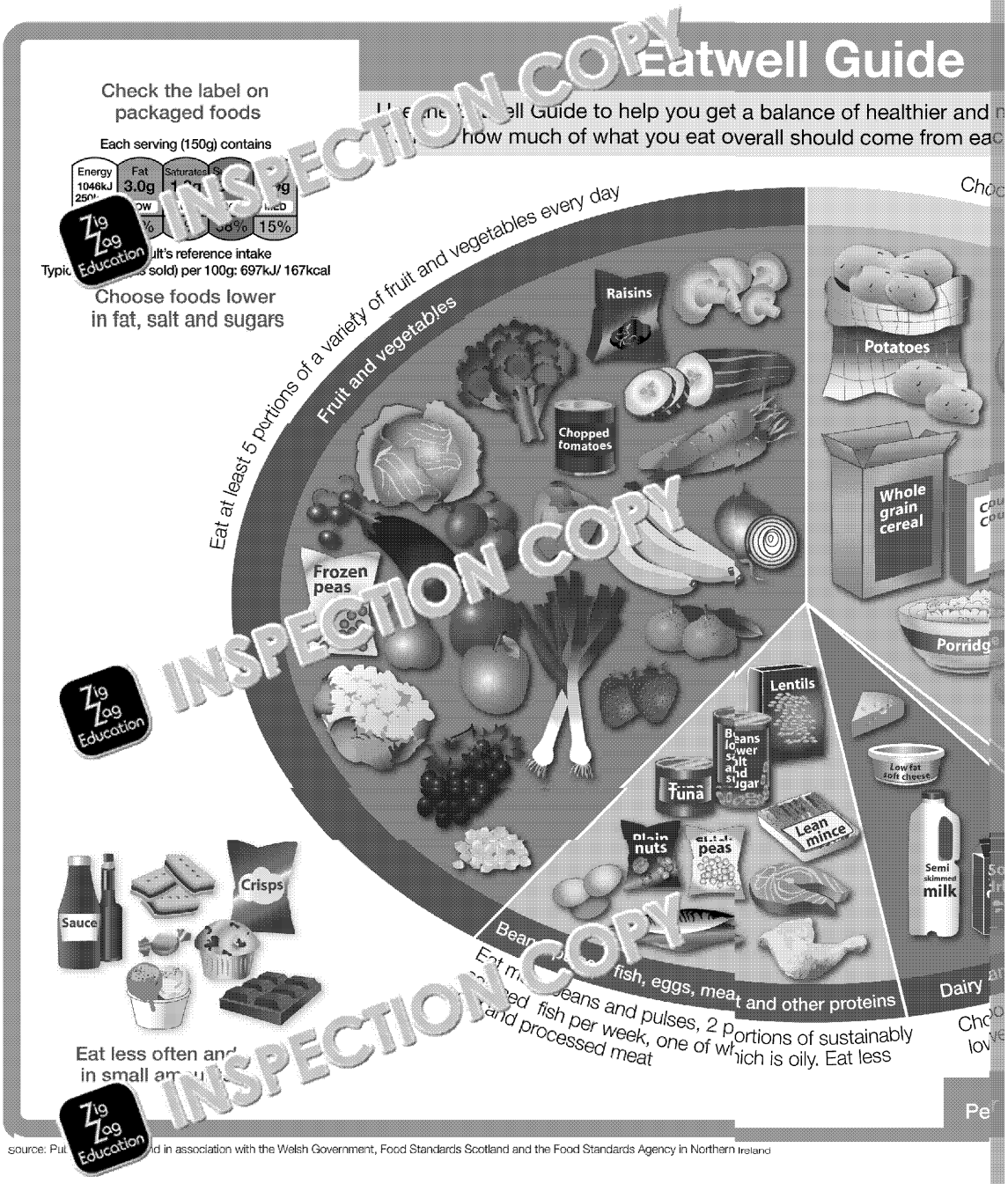
	Starter activity – Designing a meal
Aim of the activity	To summarise information about the Eatwell Guide and how to groups to plan a healthy balanced diet.
Teacher instructions	Split the class into pairs. Copy the student's worksheet accor Allow students 10 minutes to complete the activity. As an extension, you may then ask them to actually cook the r the calories it provides using an online calculator such as **http://explorefood.foodafactoflife.org.uk/** . Remember to so students can complete the additional activity.

Answers

A complete meal should include:

- a source of starch – e.g. rice, pasta, potatoes, bread
- vegetables – cooked or fresh, e.g. in the form of a salad or soup
- a source of protein – e.g. meat, fish, eggs, beans, lentils, chickpeas
- milk or dairy – e.g. milk, milkshake or yoghurt to drink or cheese as a side
- fruits – e.g. a fresh fruit served instead of a dessert, or a fruit smoothie
- fats and oils – either from other foods (e.g. cheese, meat) or added (e.g. for f
- a drink – ideally unsweetened, like water, fruit or herbal tea, or milk

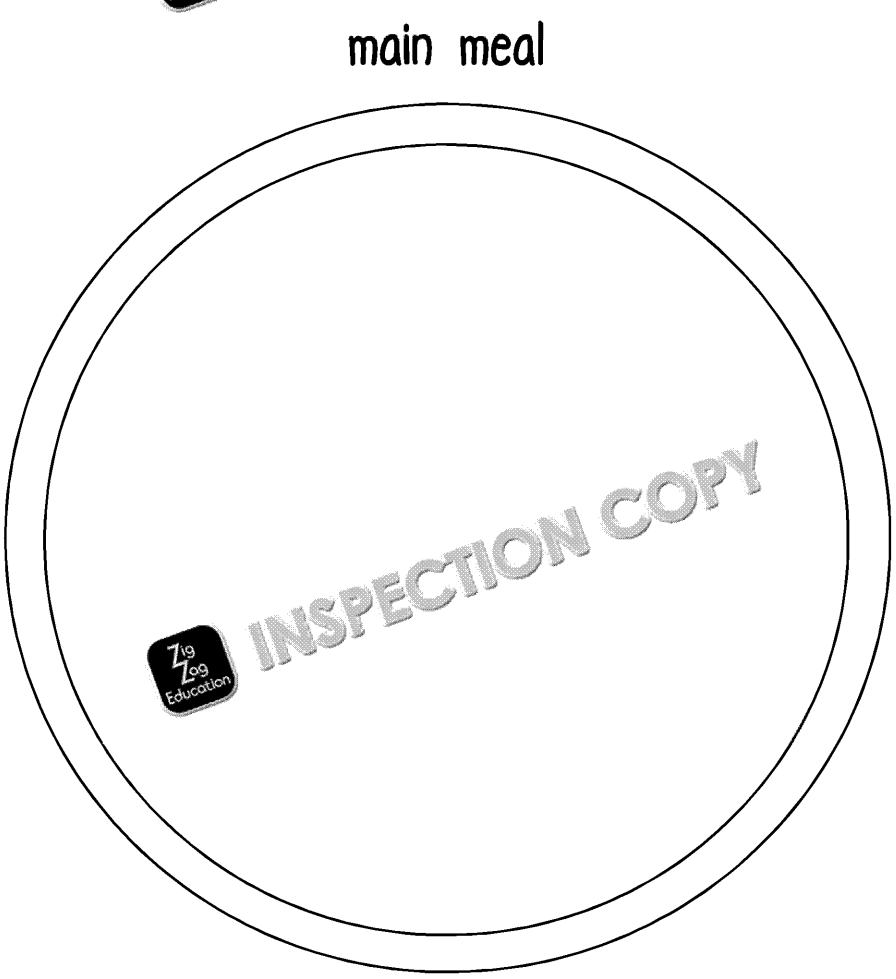
You can co the Eatwell Guide attached on the next page for students haven't heard about it, to support them in completing the activity, or to results.



Meal Designer

The Eatwell Guide is a simple guide which shows what foods to eat and in
quantities in order to eat a healthy, balanced diet. A balanced diet is one w
macronutrients and micronutrients in the correct amounts necessary to re
the Eatwell Guide, we should base our diets on
also include some milk and dairy, some
and oils. We also need to drink

Get into pairs. In
Eatwell Gu



Tick ✓ all the items you included in your meal.

- ☐ vegetables
- ☐ fruits
- ☐ starchy foods
- ☐ protein-rich food
- ☐ milk or dairy
- ☐ fats and oils
- ☐ drink

Is anything missing? How can you improve your meal?

.....

.....

Teacher's Notes

	Plenary activity – Categorising
Aim of the activity	To recap knowledge about sources of various macronutrients
Teacher instructions	Split the class into groups of four. Copy the student's worksh Allow students 10 to 15 minutes to cut out the labels and com To save time, ask students to simply write the sources above e them out.

Answers

Proteins: almonds, beef steak, chicken breast, cod fillet, milk, salmon, shrimps, to

Carbohydrates: bananas, bread, carrots, chips, flour, milk, pancakes, potatoes, r

Fats: almonds, avocados, butter, chips, lard, mayonnaise, milk, olive oil, salmon, w

Note that some foods are a source of multiple nutrients (e.g. milk) and could be a once. You can use this opportunity to discuss why we need a varied diet (to prov amounts).

So(u)rcerer's Food

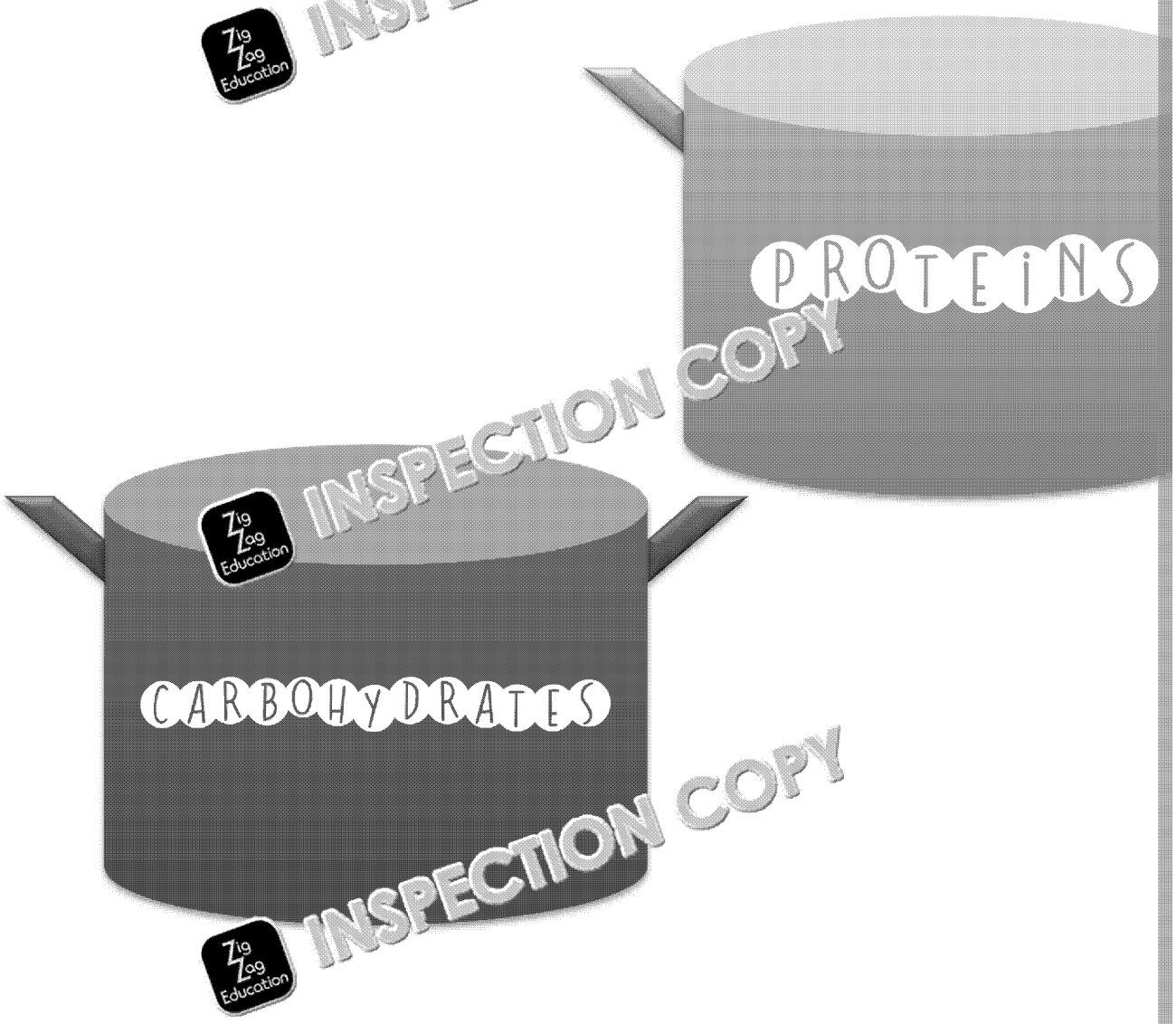
Food – everyone has their favourite! But did you know that it is not only t
but also healthy? Yes, that's right! Food provides us with important macr
micronutrients, without which we would quickly die!

Macronutrients include proteins, fats and ca bo. v rates and are needed
amounts. We can find them in a v iet foods. But do you know which

Cut out the labels be w n attach them above the correct category ('so
nutrient th ov e.

avocados	cod fillet	pancakes	mayon
almonds	bread	shrimps	salm
carrots	beef steak	walnuts	lar
tofu	butter	yoghurt	flou
pota	tortilla	chips	banar

Stick your sources in the correct pans!



Activity 9 – The Eight Tips for Healthy Eat Knowledge

Teacher's Notes

	Plenary activity: Multiple choice quiz
Aim of the activity	To summ... knowledge about the eight tips for healthy eatin...
Teacher instructions	Split the class into pairs. Copy the student's worksheet accor... Allow students 10 minutes to complete the quiz. Once done, ... answers into a box. Analyse them and discuss the most probl...

Answers

1. Starchy foods
2. Sweet potato
3. Five
4. Because it can cause tooth decay
5. Cod
6. Bacon
7. It can cause heart disease and stroke.
8. Yoghurt
9. To re... the risk of high blood pressure
10. 60 minutes every day
11. Dehydration
12. It improves concentration.

Test Your Knowledge

Doctors, dietitians and nutritionists put a lot of effort into creating guideli
for healthy eating and cooking. One of them is known as the eight tips fo
how much you know about it!

Get into pairs and try to solve the quiz belo[illegible] [illegible]ti[illegible]ing ✓ the correct ans

1. The firs[illegible] [illegible]at you should base your [illegible]n…

- ☐ starchy foods
- ☐ protein-rich foods
- ☐ foods rich in fats

2. Speaking of starchy foods – identify one example of a starchy food.

- ☐ carrot
- ☐ lettuce
- ☐ sweet potato

3. How many portions of fruits and vegetables should you eat each day?

- ☐ Three
- ☐ Four
- ☐ Five

4. Why i[illegible]k[illegible] [illegible]it juice not recon[illegible]led by the guide?

- ☐ because it can cause tooth decay
- ☐ because it can cause scurvy
- ☐ because it can cause weight loss

5. The guide states that you should eat two portions of oily fish a week. Which is not an example of an oily fish?

- ☐ mackerel
- ☐ salmon
- ☐ cod

6. It is also important to cut down on saturated fats. Which of the[illegible] is rich in saturated fats?

- ☐ av[illegible]o
- ☐ b[illegible]
- ☐ sal[illegible]on

7. Why is satura unhealthy?

- ☐ It can cau
- ☐ It can cau
- ☐ It can cau

8. Select the fo content.

- ☐ Cheddar c
- ☐ roasted h
- ☐ yoghurt

9. Why is it imp of salt a day?

- ☐ to reduce
- ☐ to reduce pressure
- ☐ to reduce

10. How often sh people (ages healthy and n weight?

- ☐ 60 minute
- ☐ 60 minute
- ☐ 60 minute

11. What conditi too little wat

- ☐ hydration
- ☐ dehydrati
- ☐ rehydratio

12. Eating a brea because…

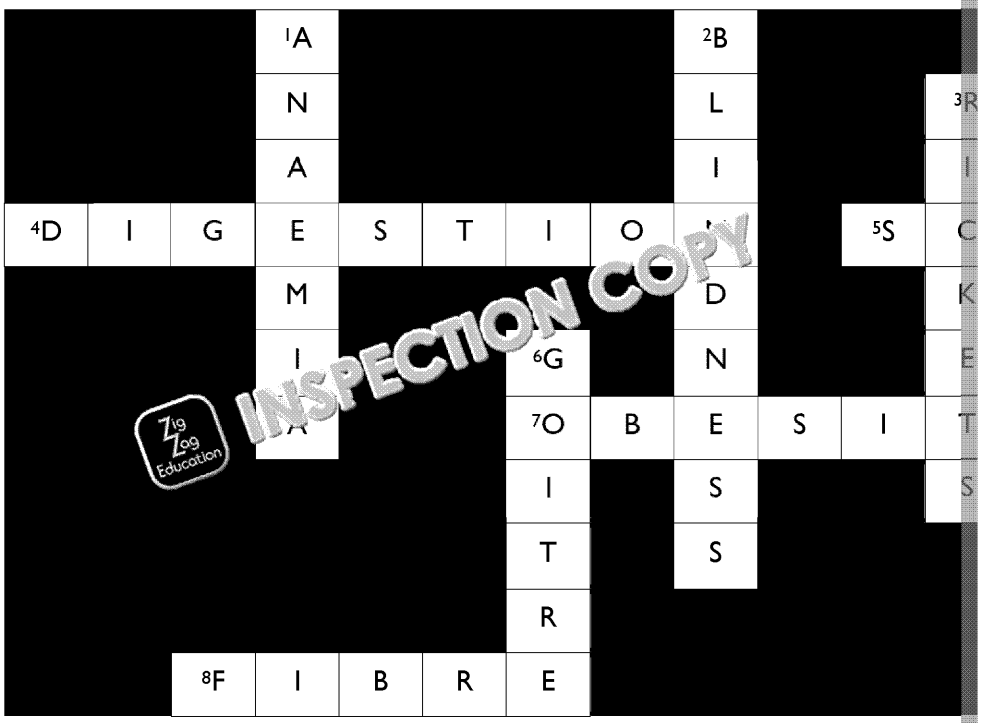
- ☐ It improve
- ☐ It improve
- ☐ It stimulat

Activity 10 – Malnutrition and Obesity – Crossword

Teacher's Notes

Plenary activity: Crossword	
Aim of the activity	To recap knowledge about the most important effects of excess
Teacher instructions	Split the class into pairs. Copy the student's worksheet accordingly. Allow students 10 minutes to complete the activity. Take answers and explain possible issues.

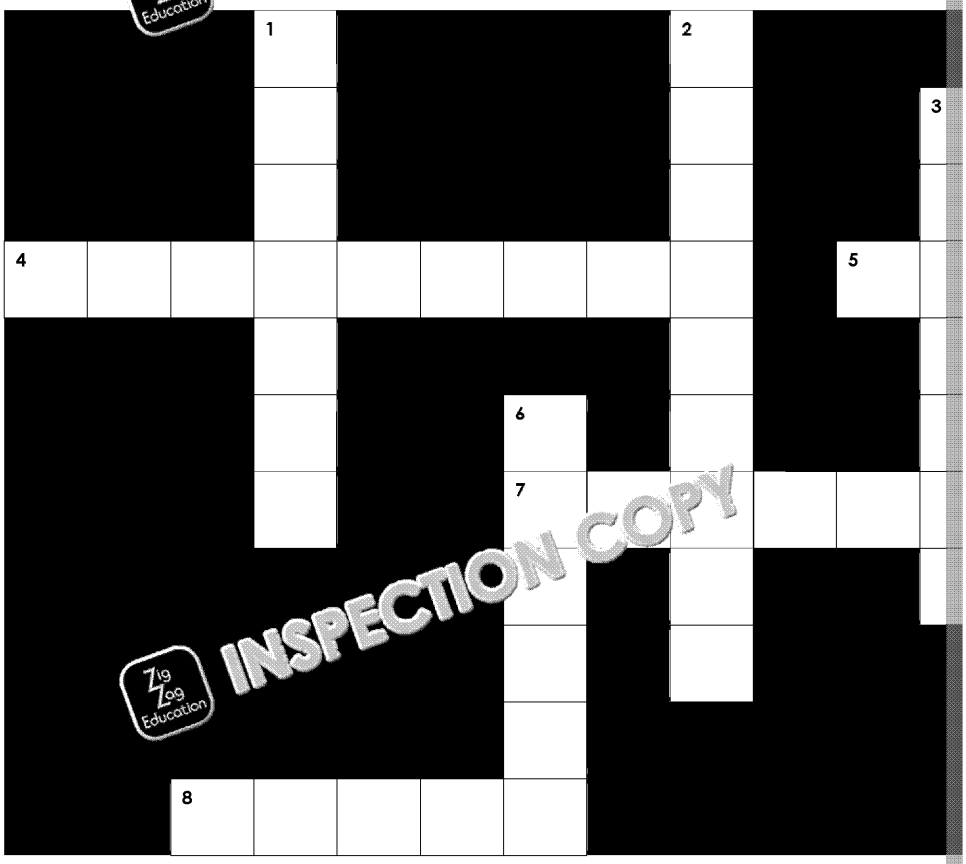
Answers



The Unbalanced Crossword

You already know that eating a balanced diet helps to keep you healthy a
of energy. But what happens when your diet is NOT balanced? Both defi
excess (eating too much) of nutrients can cause more or less severe healt
they are?

Get into pairs and try to solve this crossword to check how much you alre
of eating an unbalanced di



Across

4. The process of breaking down nutrients in the body.
5. In this disease, common among sixteenth century sailors, the gums bleed and recede, causing tooth loss.
7. This condition is usually caused by consuming too much food.
8. Cannot be broken down in the body, but is necessary for good health and bowel movements.

Down

1. Disease caused when there are very
2. Night _____ deficiency.
3. In this conditi vitamin D, du bend outward
6. This disease is in a diet.

Activity 11 – Physical Activity and Its Meani
Social Media Page

Teacher's Notes

	Plenary activity: ...cial media page
Aim of the activity	To recap knowledge ab... h, ...ical activity and its meaning fo... weight.
Teacher's instruct...	Split t... groups of four. Copy the student's worksh... ...dents 10 minutes to create a simple social media pag... affects health and helps to maintain a healthy body weight.

Answers

Students' social network pages could include the following health benefits of physi...

- helping to lose weight
- burning excess calories
- preventing overweight and obesity
- preventing cardiovascular diseases
- improving heart rate
- lowering the risk of hypertension (high blood pressure)
- improving glycaemia (the level of glucose in the blood)
- improving lung capacity and breathing rate
- lowering stress
- strengthening the bones
- lowering the risk of ...
- improv... ...dy ... ...position (increasing the amount of muscle and lowering ...
- improv... ...od cholesterol levels (more 'good cholesterol' HDL, less total ... LDL)
- increasing immunity
- improving mood and self esteem
- slowing down ageing
- increasing metabolism

Social Media Page

Physical activity is very important for health. It helps to control body weig
up excess calories, strengthens muscles and bones, improves performanc
You can see more and more people jogging in the morning or attending
some are still reluctant!

Get int roups of four. In groups, create a soc
ers that physical activity equals health! Wh
How will you present your information? A sim
infographic? Or maybe something else? It's ti
and #GetActive!

MySocioFace

	Ti
(choose a photo)	Type your stat Older posts
About:	
Reviews:	
Likes:	
Link t e:	

Activity 12 – Where Food Comes from –

Teacher's Notes

	Starter activity: In pieces
Aim of the activity	To introduce foods which are gro[illegible]d, caught and gathe
Teacher's instructi[illegible]	Split the class into gr[illegible] four. Copy the student's worksh[illegible] Allow stude[illegible] minutes to complete the activity and [illegible] mana[illegible] and correctly categorise all of the ingredients To save time, you can ask students to simply cross off the tiles rather than cut them out.

Answers

- **Grown:** apples, potatoes, beans, rice, carrot, pears
  Grown foods include all plant foods cultivated purposefully in fields, orchards, green
- **Reared:** cattle, sheep, chicken, pork, turkey
  Reared foods include all livestock (cattle, poultry, fish, etc.) which are reared on far
- **Caught:** salmon*, game, venison*, partridge, lobster
  Caught foods include all foods which come from animals living in the wild (aren't re
- **Gathered:** mushrooms**, herbs**
  Gathered foods include plant foods which grow in the wild (a[illegible] not cultivated purpo

*can also be reared

**can also be grown

Piece-ful Food

The foods we eat can be grown, reared, caught or even gathered. Let's se
much you know about where food comes from!

Get into groups of four. Cut out the labels below an[illegible]e them to create
Then decide whether these foods are grown, reared, caught or gathered!

SAL	[illegible]	CAR	CHI	MUS
LOB	SHE	GA	ER	HER
VE	PE	POT	MON	ARS
KEY	HRO	PO	ST	NI
CAT	BE	BS	SON	ROT
EN	PAR	APP	CE	DGE

Foods which are:

grown:

.....

.....

reared:

.....

.....

caught:

.....

.....

gathered:

.....

.....

Activity 13 – Foods from around the Worl
World in 26 Letters

Teacher's Notes

	Plenary activity: The alphabet game
Aim of the activity	To recognise foods beginning from different parts of the wor
Teacher instructions	Get students to stand in a circle. Pick a student to begin the gam The first student must say a food beginning with the letter A a what cuisine it is characteristic of. The next student should fo the next letter in the alphabet. Students who provide correct Those who struggle may ask a friend for help. The game ends covered (if you have a group bigger than 26 students, you can twice so that everybody gets a chance).

Answers

Examples could include:

- A – apple (Great Britain), almonds (Mediterranean countries), apricots (Turk
- B – beetroot (Great Britain), banana (South America), bulgur (North Africa)
- C – cherries (Great Britain), coconut (United States), couscous (North Afric
- D – Danish blue cheese (Denmark), dates (Mediterranean countries), dragon
- E – elderflower (Great Britain), edamame beans (East Asia), eggplant (Medite
- F – feta (Greece), figs (Mediterranean countries), [illegible]e (East Asia)
- G – grapes (Mediterranean countries), garlic (Great Britain), grapefruit (Chin
- H – harissa (North Africa), [illegible] (North Africa), halloumi (Greece)
- I – iceberg lettuce (Great Britain)
- J – Jeru[illegible] (North America), juniper berries (Great Britain)
- K – kal[illegible]t Britain), kohlrabi (Great Britain), kiwi (New Zealand)
- L – lime and lemon (Mediterranean countries), lobster (USA, Norway), leek
- M – melon (Mediterranean countries), mango (East Asia), mozzarella (Italy)
- N – nutmeg (Asia, India), nori (East Asia), nigella seeds (North Africa)
- O– oats (Great Britain), orange (Mediterranean countries), oregano (Italy)
- P – pistachios (Mediterranean countries), passionfruit (South America), polen
- Q – quince (Great Britain), quinoa (South America)
- R – radish (Great Britain), rosemary (Italy), rice (East Asia, India)
- S – spearmint (Great Britain), salmon (Norway), soy beans (East Asia), seawe
- T – tamarind (East Asia), tapioca (North and South America), tomatoes (Nor
- U – udon noodles (China)
- V – vanilla (Madagascar), veal (Great Britain), [illegible] noodles (Italy)
- W – wheat (Great Britain), watermelon (Mediterranean countries), wasabi (E
- X – xigua (African melon), [illegible] (fish from Spain)
- Y – yeast (worldwide), yogurt (worldwide)
- Z – zu[illegible] (Italy), zwieback (Germany)

*Note that it might be very difficult to name foods beginning with certain letters, such as I, U, X or Z. You may easier, or keep them to make it challenging. You may continue the lesson by discussing with students why some United Kingdom, and how food production affects the environment.

**Some foods may obviously be sourced from multiple countries, but only the main/most obvious source countr

Around the World in 26 letters

The experts say that you have to eat a variety of foods to provide all nutri
healthy. But how many foods can you actua
challenge!

Stand in a circle. The teacher will pick one pe
first pers st name a food beginning wit
it can e om. The next person must name a
llowing letter in the alphabet. For each cor
If you struggle, you can ask a friend for help.
alphabet is over!

You can note the foods named by your class
you think of any other foods?

Letter	Food	Origin	Letter	Foo
A.			B.	
C.			D.	
E.			F.	
G.			H.	
I.			J.	
K.			L.	
M.			N.	
O.			P.	
Q.			R.	
S.			T.	
U.			V.	
W.			X.	
Y.			Z.	

Activity 14 – Seasonal Foods – It's a Season Crosses

Teacher's Notes

Plenary activity: Noughts and crosses	
Aim of the activity	To introduce seasonality as characteristic of British cuisine.
Teacher's instructions	Split the class into four groups. Assign each group a different season (spring, autumn and winter). Groups should take it in turns to name foods characteristic of the season; there will be six rounds: 1. spring vs summer 2. spring vs autumn 3. spring vs winter 4. summer vs autumn 5. summer vs winter 6. autumn vs winter If students are right, they can draw a nought or cross on the board. Answers cannot be repeated. The group which manages to win the most

Answers

Some foods characteristic of different seasons include, but are not limited to:

spring	asparagus, new potatoes, watercress, sprouts, radish, rhubarb, plaice, salad greens
summer	artichoke, broccoli, courgette, kohlrabi, watermelon, strawberries, blackberries, apricots, peaches, beans, lettuce, spinach, mackerel
autumn	apples, pears, plums, pumpkin, kale, elderberries, figs, grapes, oysters, turbot
winter	beetroot, Brussel sprouts, cabbage, potatoes, carrots, turnips, fowl, turkey, hare, mallard, partridge, winkles, lobster

You can also find more information about seasonal foods on the following website

http://www.lovebritishfood.co.uk/british-food-and-drinks/whats-in-season

http://www.eattheseasons.co.uk/

It's a Season for Noughts and Crosses

You probably noticed that we eat more of certain foods in different seaso of the year. This is known as seasonality and refers to the life cycle of plar

Let's see how many foods specific to each season y[illegible]now!

Split into four groups – one for each se[illegible] of the year. Now you will hav another group! In turns, nam[illegible] that is characteristic of your seas you can draw a cross [illegible] on the board. Remember that you canno of the batt[illegible] group which manages to win the most battles, wins!

Battle	Score	Battle
spring vs summer		summer vs autumn
spring vs autumn		summer vs winter
spring vs winter		autumn vs winter

Foods characteristic of seasons of the year:

Activity 15 - Methods of Farming - Tr

Teacher's Notes

	Starter activity: True or false
Aim of the activity	To introduce various methods of f[illegible]g and explain the diffe[illegible]
Teacher's instructions	Read the statements [illegible]d aloud and ask students to vote [illegible] think they are cor[illegible], and with their left hand if they think the[illegible] stud[illegible]s to be props, e.g. red and blue cards to vote with, or [illegible] a[illegible] down for false.

Answers

1. In organic farming farmers cannot use artificial pesticides or herbicides.
2. In conventional farming antibiotics are not used at all.
3. Free-range eggs are more nutritious than cage eggs.
4. Organic food usually has less pesticides than conventional food.
5. By buying Fairtrade products you support farmers in developing countries.
6. In conventional farming animal welfare standards are often breached.
7. Organic food usually has more vitamins than conventional food.
8. Sustainable farming helps to use resources in a reasonable way.
9. Organic farming usually is less costly than conventional farming.
10. In organic farming, artificial fertilisers are used to produce high-yield crops.

True or False

You probably have noticed that some food products in the shops are labe
'organic', 'free-range', 'Fairtrade', etc. But what does it actually mean? Le
already know!

Your teacher will read some statements alou[illegible] your right hand up if y
your left hand up if you think it is fals[illegible] Then write the correct statements

1. True/False

   .....

2. True/False

   .....

3. True/False

   .....

4. True/False

   .....

5. True/False

   .....

6. True/False

   .....

7. True/F[illegible]

   .....

8. True/False

   .....

9. True/False

   .....

10. True/False

    .....

So how many of them did you get right? ____

What else do you need to lea[illegible] or discover about different meth
production?

.....

.....

.....

Activity 16 – Food and the Environment – Connections Map

Teacher's Notes

Starter activity: Connect… map (brainsto…	
Aim of the activity	To explain how fo… …tion and the food industry affect t…
Teach… instructi…	Split … …s groups of four. Copy the student's worksh… … Allow students 10 minutes to create a connections map to ind… affects the environment. Allow each group to present their id… actions have a good or bad impact on the environment.

Answers

This activity is intended to be open, as it allows the students to input their own vi… that other people may view the same topic in another way. By comparing the co… different groups, students will be able to discover various points of view and links… the environment.

The answers could refer to:

- climate change
- global warming
- packaging
- use of non-renewable resources
- food miles
- carbon fo…
- pollutio…
- deforestation
- extinction of species
- recycling
- the quality of soil (overexploitation, low in nutrients)
- exploitation of resources and overfishing
- use of genetically modified foods

Example 1:

*Food packaging can have a **good impact** as it helps to **protect the food from spoi… **wastage**; it can also have a **bad influence** as it uses a lot of **natural resources** to b… **pollution** once used and discarded; this can then have a **go… …pact** again if it is be… it's left in garbage dumps.*

You can help students by asking th… …nsider how food packaging affects the… come up with a different …

Example 2:

*When cattle are reared, they require **a lot of land area** so they can graze. This has a environment as the same area could be used to grow plants (and usually the amount of bigger than the amount of food produced by using the area for grazing). The cattle also **impact**) and produce a lot of **methane** and **carbon dioxide** (**bad impact** as these However, their **manure** can be used as a **natural fertiliser** when growing plants (**go coal** to produce warmth, which helps to exploit less areas of farmland (**good impact**).*

You can help students by asking them to consider how rearing animals for meat, environment.

Example 3:

*Some foods are imported to the UK from other countries. This has a **bad impact** on th **use of water and oil**, and increases **emissions of carbon dioxide** into the atmosph **global warming**. To produce these foods, forests need to be cut down (**bad impact**). which are produced in accordance with **Fairtrade** or **Rainforest Alliance** schemes, yo environment as these foods are made with as little damage to the environment as possib*

You can help students by asking them to consider how importing foods from othe environment, and whether there is anything they can do about it.

Example 4:

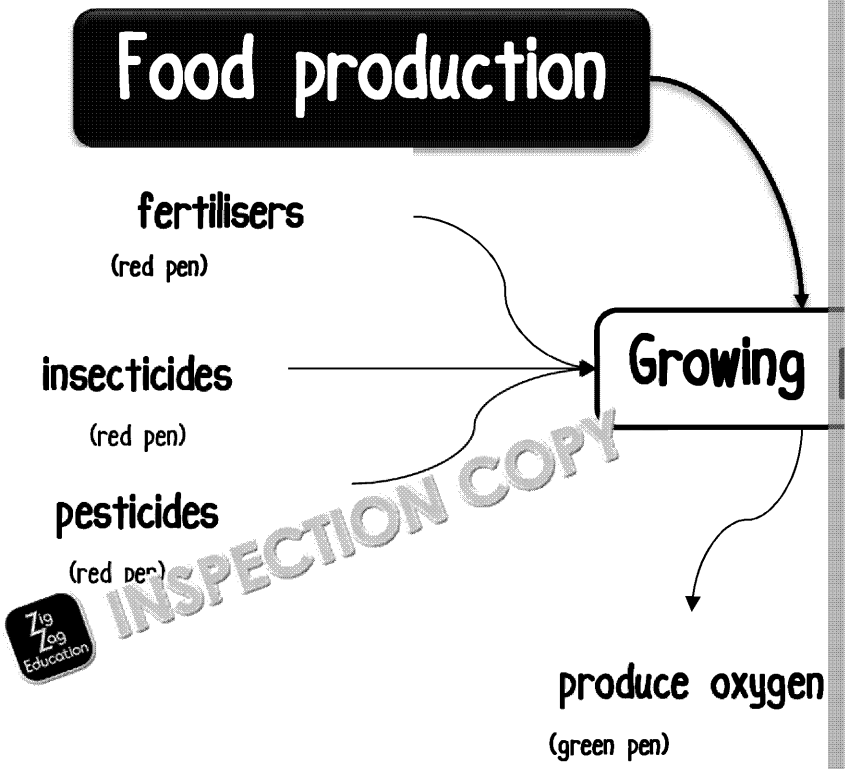
*In industrial farming farmers often decide to use large amounts of **artificial fertilisers**, boost the crops and prevent damage. This has a **bad impact** on the environment as th azotanes in the soil, so it is not suitable for growing other types of plants. Also, pesticide are poisoned and **cannot pollinate plants (bad impact)**. The use of antibiotics can and create potentially untreatable new diseases in plants, animals and humans (**bad im fertilisers wisely may **improve the soil quality (good impact**) so it can be used for a farming usually **requires less land area** and the remainder can be used for other pur*

You can help students by asking them to consider how industrial farming and orga environmen

Environmental Connections Map

The food industry requires a lot of resources to produce the food we eat: from ingredients and fertilisers to grow them, to transporting them to fac packaging, to selling, cooking and eating. Each stage has a great impact positive or a negative influence? Let's see how much you know!

Get into groups of four. In each group, create a connections map to iden production and processing and indicate how they affect the environmen identify the bad influences, and a green one to show the good influences



Activity 17 – Additives in Food – The Sec
Factory

Teacher's Notes

	Starter activit – Wordsearch
Aim of the activity	To introduce vari s o dditives.
Teacher's instruct	Split t a groups of four. Copy the student's worksh dents 5 minutes to find all the words in the grid, and to complete the other part of the activity.

Answers

	H	C	R	A	T	S	D	E	I	F	I	D	O
E	M	U	L	S	I	F	I	E	R				
									S	W	E	E	T
								F					
						C	O	L	O	U	R	A	N
A	N	T	I	O	X	I	D	A	N	T			
					T			V					
					A	S	C	O	R	B	I	C	A
					R			U					
					T			R					
A					R			I					
S		N			A			N					
P		I			Z			G					
A		H											
R		T			N								
T	H	C	K	E	N	E	R						
A													
M		E											
E		L				E	V	I	T	A	V	R	E

Bonus Question (Answers):

Group:	Example:	Source (exemplary):
antioxidant	ascorbic acid	bread, fruit juices, dried milk, ja
colourant	tartrazine	processed cheese, canned and
flavouring	monosodium glutamate	ready-to-eat foods, salt substitu
preservative	sulfur dioxide	dried fruit, wine, processed pot
sweetener	aspartame	bevera nd drinks, ice crea gums
thickener	modified starch	ayonnaise and other sauces, y
emulsifier	lecithin	dried milk, mayonnaise, pasta, b foods

You may c the lesson to discuss why additives are used and draw advanta them.

The Secrets of a Food Factory

Food additives are substances which are not food in themselves, but are a
products during manufacturing for different reasons: to improve the qual
the food, increase its shelf life and prevent spoilage.

In this food factory everything is top secret - from the ratio of ingredients
the products! Some of them are hidden in the supergrid below – can you

C	H	C	K	T	S	D	E	I	F	I	D	O	M
O			A	Y	B	L	E	B	J	F	R	C	Q	O
E	M	U	L	S	I	F	I	E	R	Z	T	W	A	B
M	U	R	B	L	E	S	N	W	S	W	E	E	T	E
E	R	S	I	O	S	T	U	F	I	E	R	R	E	H
I	M	K	O	C	L	C	O	L	O	U	R	A	N	T
A	N	T	I	O	X	I	D	A	N	T	Y	T	E	M
N	U	A	R	L	T	V	E	V	I	O	A	L	B	E
A	R	R	A	T	A	S	C	O	R	B	I	C	A	C
N	T	T	D	U	R	P	L	U	C	K	N	H	C	O
D	S	Z	I	R	T	I	R	R	S	T	I	R	Q	V
A	E	W	A	R	C	K	I	N	E	H	L	K	R	
S			T	H	A	U	R	N	E	R	G	Y	I	A
P	A	I	E	W	Z	E	B	G	R	O	U	S	S	I
A	B	H	N	S	I	Z	E	H	F	E	I	H	Z	O
R	E	T	T	C	N	I	J	C	O	G	L	E	S	H
T	H	I	C	K	E	N	E	R	H	E	L	E	M	U
A	S	C	H	U	T	E	F	A	S	U	M	N	E	R
M	T	E	P	Q	E	S	T	L	B	W	G	O	S	U
E	N	L	I	P	F	E	V	I	[illegible]	A	V	R	E	S

- ☐ antioxidant
- ☐ as[illegible]c a[illegible]
- ☐ as[illegible]ne
- ☐ colourants
- ☐ emulsifier
- ☐ flavouring
- ☐ lecithin
- ☐ modified
- ☐ monosod[illegible]
- ☐ preservati[illegible]
- ☐ sweetene[illegible]
- ☐ sulfur dio[illegible]
- ☐ tartrazine
- ☐ thickener

Bonus question: You probably noticed that the words in the grid can be
Indeed, some of them are general categories of additives, while others a
substances used. Can you tell which are which? Write the names in the t
source of food each of them can be found in!

Group	Example	

Activity 18 – British Cuisine – Tasty

Teacher's Notes

	Starter activity: Tasty anagrams
Aim of the activity	To introduce foods and ingredient[illegible]ac[illegible]eristic of British cui
Teacher's instructions	Copy the student's w[illegible]et to allow one per person. Allow stude[illegible]up t[illegible]minutes to solve the anagrams and disc cha[illegible]e[illegible]at[illegible]of British cuisine. Then allow another 5 minutes c[illegible]ctivity.

Answers

1. Trout
2. Apple
3. Beef
4. Carrot
5. Bread
6. Peach
7. Tuna
8. Beans
9. Plum
10. Clams
11. Lamb
12. Leek
13. Cottage pie
14. Cornish pasty
15. Roast [illegible]
16. Ploughi[illegible]unch

Tasty Anagrams

British cuisine is full of tasty, healthy foods. They can be either produced i
or imported from abroad. Let's see how many of these foods you can gue

Look at the anagrams below. An anagram is a word in which, if the letters a
into another word (or just a jumbled mess of letters). For example, melon

**Read the anagrams below and rearrange the letters to discover what
them!**

1	tutor	_ _ _ _ _	.....
2	appel	_ _ _ _ _	.....
3	feeb	_ _ _ _	.....
4	trocar	_ _ _ _ _ _	.....
5	beard	_ _ _ _ _	.....
6	cheap	_ _ _ _ _	.....
7	aunt	_ _ _ _	.....
8	banes	_ _ _ _ _	.....
9	lump	_ _ _ _	.....
10	calms	_ _ _ _ _	.....
11	balm	_ _ _ _	.....
12	keel	_ _ _ _	.....

Got it? It's time for something more difficult!

13	poetic gate	_ _ _ _ _ _ _ _ _ _
14	sporty chains	_ _ _ _ _ _ _ _ _ _ _ _
15	free boats	_ _ _ _ _ _ _ _ _
16	hung lump on clash	_ _ _ _ _ _ _ _ _ _ _ _ _

Got some spare time? Think about recipes and dishes the ingredients ab
write them next to their name. How many can you think of?

Activity 19 – Factors which Influence Food Choices Quiz Cube

Teacher's Notes

Starter activity: Quiz cube	
Aim of the activity	To discuss how various factors influence humans' food choices
Teacher's instructions	Split the class into six groups. Get students to cut out and glue the dice. Then allow each gr group students should discuss how the drawn factor influences group draws the same factor, ask them to add more informati dice again until a different topic is drawn. To save time, you may ask students to prepare the dice at hon You can also choose to discuss only one topic per lesson, and lessons, until all topics are covered.

Answers*

Religion – it plays a major role in food choices, especially for Muslims, Jews, Hind Buddhists and Christians (less so in other religions); each religion has a set of food which are forbidden, as well as festivals during which special food is eaten; for exa pork or alcohol, Jews will not eat beef together with milk, and Christians sometim

Health – people who wish to eat a healthy, balanced diet may choose to eat cert others, e.g. eat fresh vegetables and fruit, and avoid eating processed, deep-fried fat or sugar; also certain conditions and diseases may require special diets, e.g. in t type 2 diabetes, etc.

Time of year – an important factor due to seasonality of produce and due to during certain times in a year.

Age – is an important factor as, depending on age, people have different nutrition baby should only be fed milk (breast or formula), while a toddler should be introd foods; similarly, teenagers should eat a diet rich in protein, iron and calcium, while much of these nutrients.

Physical activity – can influence people to eat different foods, or to increase or certain products; for example, people who wish to improve their muscles may ch proteins (to include special protein drinks, powders, bars, etc.), while people who need more carbohydrates in their diet; physical activity also increases energy need more in general.

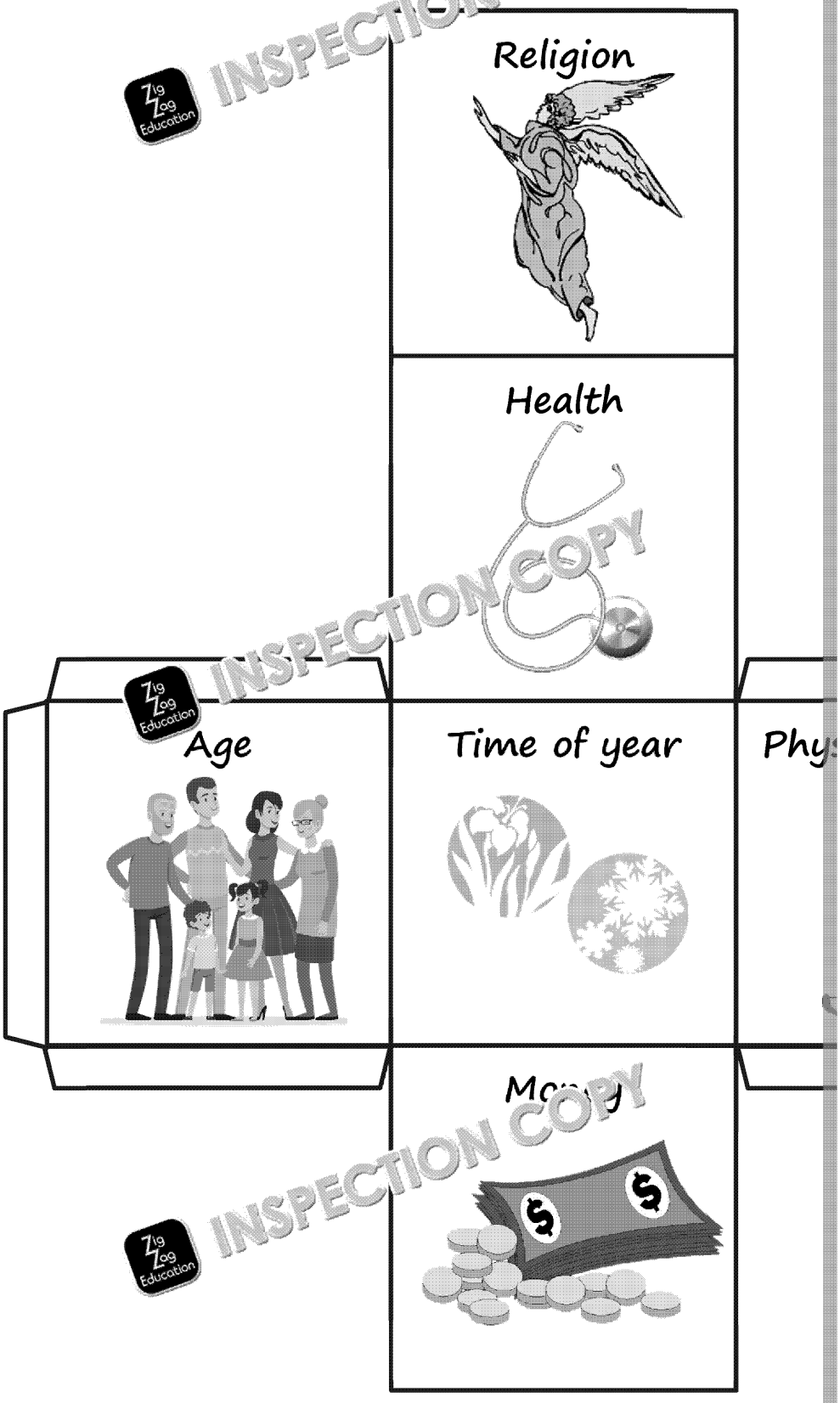
Money – money is a very important factor in food choices; the amount of money of food in the shop, will often dictate what consumers will buy; it is important to no to buy a lot of cheap food (e.g. those on low income, with larger families), while more expensive items.

*Please note these answers are exemplary only and students may come up with other

Food Choices Quiz Cube

Have you ever wondered why people eat what they eat? Why we choose certain foods in the morning, and other foods in the evening? And why w

Cut out the dice and glue it together. Throw the di[illegible]d try to explain h people's food choices!



Activity 20 – Calculating the Cost of a Di

Teacher's Notes

	Plenary activity: Cheaping in
Aim of the activity	To indicate that good and healthy food doesn't need to be exp affordable and available for all.
Teacher's instructions	After a practical cool[illegible]on ask students to get back into t in (i.e. if they [illegible] pairs, let them get back into the same Ask them to open a price comparison website either o[illegible] phones (if they have any and are allowed to use them i Allow students 10 to 15 minutes to calculate an average cost o they cooked more than one, ask them to choose one only). Then ask them to find three ways in which the dish can be ma Websites you could use include **https://www.mysupermar[illegible]** **https://www.pricecheck.co.za/categories/8342/Groceri[illegible]** supermarket (e.g. one which is closest to school). Please note that there is an additional worksheet for less able understand how to work out the cost of a dish. You can print

Answers

There are no good or bad answers. Ensure that students [illegible]erstand how to calc portion.

Some ideas for lowering the price of a dish could include:

- buying in a differ[illegible]
- choosi[illegible]pe market's own brand products
- buying i[illegible]s which are on discount
- bulk buying
- replacing more expensive foods with their cheaper substitutes
- replacing meat with cheaper options
- using frozen vegetables as often they are cheaper than fresh ones (yet equally

Cheaping in

The most exciting part of any food-related course is actually cooking it. O
just prepared something really delicious in class. We're sure you put in ev
and look good, but… what about the cost?

Today you're about to find out how much a portion of your dish costs.

Go to a price comparison website (your teacher will tell you which one) ar
of all ingredients used to prepare your dish. Remember to adjust the pric
how much it costs to prepare ONE PORTION of your food!

Use the table below to list all the ingredients you used, their price per pac
portion. Then add the prices up to see how much one portion costs.

Ingredient	Price per package	Size of package	Size por
		Sum:	

The price of food is very important – in fact, it is one of the most importan
when buying food. Do you think there is a way of making your dish cheap

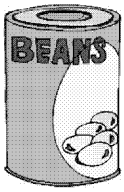
1. .....

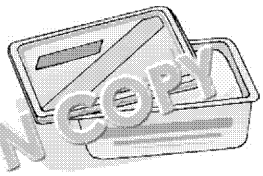
2. .....

3. .....

How to Calculate the Price of a Portion o

1. Check the price of all ingredients used.

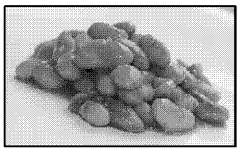




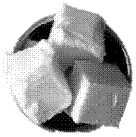
can of beans (400 g) = £1.0

block of butter (250 g) = £1.50

2. Check how much of each ingredient you actually need to make one p
example, to make beans on toast you only need:

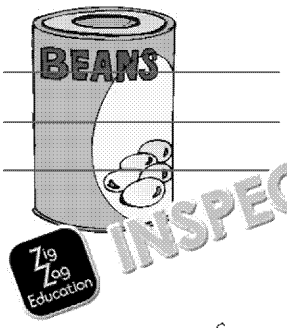


100 g of beans

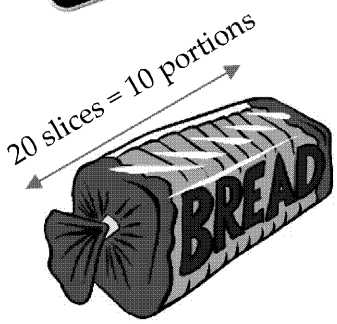


10 g of butter

3. Get your calculator ready!



A can of beans weighs 400 g, but you only nee
This means that one po ion of beans will cost
£1.00 / 400 g = £0.2
In oth words, one can of beans holds four po
ar hat you can simply divide the price of t
he number of portions to see how much each
£1.00 / 4 = £0.25

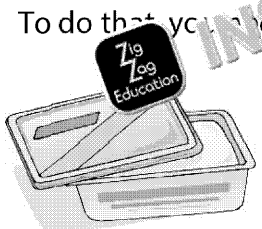


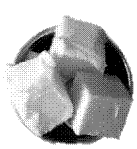
A block of butter weighs 250 g, but you only ne
portion of butter will cost 10 g: * £1.50 / 250 g =
In other words, a block of butter holds 25 porti
divide the price of the block by the number of p
them costs.
£1.50 / 25 = £0.06

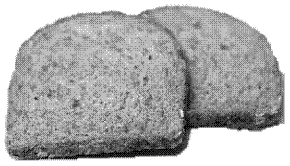
A loaf of bread holds 20 slices in it, but you onl
that one portion (2 slices) of bread will cost 2 sl
In other words, a loaf of bread holds 10 portion
containing two slices. You can divide the price
portions to calculate how much each of them c

4. Once you know how much a portion of each ingredient costs, you ca
portion of the dish.

To do that, you need to total the price of one portion of each ingredi







100 g beans costs £0.25

10 g butter costs £0.06

2 slices of bread cost £0.10

Activity 21 – Vegetarian and Vegan Diets –

Teacher's Notes

	Starter activity: Crack the safe
Aim of the activity	To introduce various types of vegetari[illegible]n and veganism, and on the environment.
Teacher's instructions	Split the class into gr[illegible] four. Copy the answer tiles and s accordingly. Allow students 10 minutes to cut out the tiles an

Answers

[P] Scientists around the world have proved that eating meat is unsustainable – m earth and

[ES] to human body. It contributes to global warming, deforestation, and diseases

[C] bowel cancer. For this reason, many people decide to become vegetarian. V

[A] eating meat. Vegetarian diet is mostly based on fruits and vegetables. Howev choose to eat

[TA] some foods of animal origin. Those who choose to eat milk and dairy are ca

[R] lacto-vegetarians. Those who choose to eat eggs are

[IA] called ovo-vegetarians and those who eat both are calle[illegible]

[N] lacto-ovo-vegetarians. A special group of vegetar[illegible]s who do not eat any foo

[S] origin are called vegans.

The code is [illegible]TARIANS – a specific group of people who, except for plant-d shellfish.

Activity 21 – Crack the Safe Tiles

lacto-vegetarians. Those who choose to eat eggs are **R**	Scientists around the world have proved that eating meat is unsustainable – meaning that it is harmful to the earth and **P**	eati is m veg grou to e
bowel cancer. For this reason, many people decide to become vegetarian. Vegetarians are people who avoid **C**	lacto-ovo-vegetarians. A special group of vegetarians who do not eat any food of animal **N**	to t con war dise
origin are called vegans. **S**	some foods of animal origin. Those who choose to eat milk and dairy are called **TA**	call thos

lacto-vegetarians. Those who choose to eat eggs are **R**	Scientists around the world have proved that eating meat is unsustainable – meaning that it is harmful to the earth and **P**	eati is m veg grou to e
bowel cancer. For this reason, many people decide to become vegetarian. Vegetarians are people who avoid **C**	lacto-ovo-vegetarians. A special group of vegetarians who do not eat any food of animal **N**	to t con war dise
origin are called vegans. **S**	some foods of animal origin. Those who choose to eat milk and dairy are called **TA**	call thos

Crack the Safe

Your teacher will provide you with some tiles. Cut them out and stick the in the correct order to reveal the code and crack the safe!

stick the labels here	*stick the labels here*	
stick the labels here	*stick the labels here*	

C	O		L	=							

Do you know what that word means?

.....

.....

.....

.....

Activity 22 – Vegetarian and Vegan Diets – Vegetarianism

Teacher's Notes

	Plenary activity – Colour-coding
Aim of the activity	To recap knowledge about vegetarian and vegan diets.
Teacher's instructions	Split the class into pairs. Copy the student's worksheet accordingly. Allow students 10 minutes to complete the activity.

Answers

Suitable for lactovegetarians:

- milkshake
- couscous with vegetables
- baked beans
- hummus
- tikka masala sauce (made with yoghurt)
- tea with honey
- plain corn tortilla
- tomato ketchup
- broccoli and stilton soup

Suitable for ovovegetarians:

- couscous with veg
- baked
- hummu
- Glamorgan sausages (made with eggs)
- scrambled eggs
- falafels (made with eggs)
- tea with honey
- mayonnaise (made with eggs)
- plain corn tortilla
- tomato ketchup

Suitable for vegans:

- couscous with v
- baked beans
- hummus
- plain corn tortil
- tomato ketchup

Not suitable for any

- spaghetti bolog
- pancakes (conta
- cream tea (cont forms)
- fish and chips (c
- beefburger (co
- cheesecake (co
- pork sausage (c

Bonus question: The logo would be used on the labels of vegan foods.

True Colours of Vegetarianism

You already know what vegetarians and vegans eat – or do you? Let's find out!

Get into pairs. Colour-code the different kinds of diet below and then choose which foods and dishes are suitable for each of them.

Note that some may be suitable for more than one group, and others may not be suitable for any.

	lactovegetarian		ovovegetarian		

milkshake	couscous with vegetables	spaghetti bolognese
hummus	pancakes	cream tea
fish and chips	Glamorgan sausages	scrambled eggs
tea with honey	mayonnaise	beefburger
pork sausage	plain corn tortilla	tomato ketchup

Bonus question: Can you tell which foods would be labelled with the

.....

Activity 23 – Adjusting and Modifying Re
Different Dietary Needs – (Un)health

Teacher's Notes

	Starter activity: Match up
Aim of the activity	To show and explain how recipes can be chosen or modified t needs.
Teacher instructions	Split the class into pairs. Copy the student's worksheet accor Allow students 10 minutes to complete the activity. Collect th aloud, asking students to vote whether they are right or wron choosing correct foods can help improve one's health.

Answers

	Suitable	Not suitable	
Obesity	sushi	macaroni cheese	high in
	tuna salad	apple crumble	contai
	corn tortilla	hot dog	high in
	cottage pie	quiche Lorraine	high in
	rare beef steak	rice pudding	high in
		chocolate	high in
		cheesecake	high in
		sausage rolls	high in
		cheese and ham sandwich	high in
		fish and chips	high in
		pizza margherita	high in
Tooth decay	sushi	apple crumble	high in
	macaroni cheese	rice pudding	high in
	tuna salad	chocolate	high in
	corn tortilla	cheesecake	high in
	hot dog		
	quiche Lorraine		
	cottage pie		
	rare beef steak		
	sausage rolls		
	cheese and ham sandwich		
	pizza margherita		
	fish and chips		

	Suitable	Not suitable	
High blood pressure	sushi	macaroni cheese	high in
	tuna salad	hot dog	high in
	corn tortilla	quiche Lorraine	high in
	apple crumble	cottage pie	high in
	rice pudding	chocolate	high in
	rare beef steak	cheesecake	high in
		sausage rolls	high in
		cheese and ham sandwich	high in
		pizza margherita	high in
		fish and chips	high in
Milk allergy	sushi	macaroni cheese	contai
	tuna salad	quiche Lorraine	contai butter
	corn tortilla	rice pudding	contai
	apple crumble	cottage pie	contai chees
	hot dog	chocolate	contai
	rare beef steak	cheesecake	contai
	sausage rolls	cheese and ham sandwich	contai
	fish and chips	pizza margherita	contai
Pregnancy	macaroni cheese	sushi	contai
	corn tortilla	tuna salad	contai
	apple crumble	rare beef steak	contai
	hot dog		
	quiche Lorraine		
	rice pudding		
	cottage pie		
	chocolate		
	cheesecake		
	sausage rolls		
	cheese and ham sandwich		
	pizza margherita		
	fish and chips		

	Suitable	Not suitable	Why?
Lactose intolerance	sushi	macaroni cheese	contains high amoun cheese, butter)
	tuna salad	quiche Lorraine	contains high amoun cheese, cream, butte
	corn tortilla	rice pudding	contains high amoun cream, butter)
	apple crumble	chocolate	contains milk
	hot dog		
	cottage pie*		
	rare beef steak		
	cheesecake*		
	sausage ro		
	cheese and sandwich*		
	pizza margherita*		
	fish and chips		
Coronary heart disease	sushi	macaroni cheese	high in fats and salt
	tuna salad	hot dog	high in fats and salt
	corn tortilla	quiche Lorraine	high in fats and salt
	apple crumble	chocolate	high in fats and sugar
	rice pudding	cheesecake	high in fats and sugar
	cottage pie	sausage rolls	high in fats and salt
	rare beef steak	cheese and ham sandwich	high in fats and salt
		pizza margherita	igh in fats and salt
		fish and chips	high in fat and salt
Coeliac disease	sushi	macar	contains wheat (past
	tuna salad	rumble	contains wheat (flou
	corn tortil	hot dog	contains wheat (bun
	rice puddin	quiche Lorraine	contains wheat (past
	chocolate	crêpes	contains wheat (flou
	rare beef steak	cheesecake	contains wheat (bisc
		sausage rolls	contain wheat (pastr
		cheese and ham sandwich	contains wheat (brea
		pizza margherita	contains wheat (dou
		fish and chips	contains wheat (batt

*These foods may (or do) contain cheese. These may need to be avoided by people with lactose intoleran produced using milk, however the sugar found in milk (lactose) is fermented duri production. Therefo less lactose than milk itself, but if it is consumed in high proportions it ma to lactose intolerant peop symptoms.

obesity	tooth decay	high blood pressure	milk allergy	pregnancy	lactose intoleran
sushi	sushi	sushi	sushi	sushi	sushi
macaroni cheese	macaroni cheese	macaroni cheese	macaroni cheese	macaroni cheese	macaroni cheese
tuna salad	tuna salad	tuna salad	tuna salad	tuna salad	tuna salad
corn tortilla	corn tortilla	corn tortilla	corn tortilla	corn tortilla	corn tortilla
apple crumble	apple crumble	apple crumble	apple crumble	apple crumble	apple crumble
hot dog	hot dog	hot dog	hot dog	hot dog	hot dog
quiche Lorraine	quiche Lorraine	quiche Lorraine	quiche Lorraine	quiche Lorraine	quiche Lorraine
rice pudding	rice pudding	rice pudding	rice pudding	rice pudding	rice pudding
cottage pie	cottage pie	cottage pie	cottage pie	cottage pie	cottage pie
chocolate	chocolate	chocolate	chocolate	chocolate	chocolate
rare beef steak	rare beef steak	rare beef steak	rare beef steak	rare beef steak	rare beef steak
cheesecake	cheesecake	cheesecake	cheesecake	cheesecake	cheesecake
sausage rolls	sausage rolls	sausage rolls	sausage rolls	sausage rolls	sausage rolls
cheddar and ham sandwich	cheddar and ham sandwich	cheddar and ham sandwich	cheddar and ham sandwich	cheddar and ham sandwich	cheddar and ham sandwich
pizza margherita	pizza margherita	pizza margherita	pizza margherita	pizza margherita	pizza margherita
fish and chips	fish and chips	fish and chips	fish and chips	fish and chips	fish and chips

2. What could happen if someone had the unsuitable foods:

- **Obesity** – the chances of losing weight would be slim; they could continue to increase the chances of developing other conditions such as type 2 diabetes and others.
- **Tooth decay** – the condition might worsen and lead to pain and tooth
- **High blood pressure** – the blood pressure could rise even higher, leading to strokes.
- **Milk allergy** – the person could develop a life-threatening anaphylactic as the lining in the trachea would swell up, making breathing impossible).
- **Pregnancy** – the woman could become sick from pathogens in the food the foetus; also heavy metals (mercury) could harm the foetus' nervous
- **Lactose intolerance** – the person could experience bloating, stomach
- **Coronary heart disease** – nothing may happen immediately, but in the worsen, increasing the risk of heart attack or stroke.
- **Coeliac disease** – gluten could damage villi in the digestive tract, leading to malnutrition; also painful stomach cramps and diarrhoea could occur.

(Un)healthy Choices

We're pretty sure everyone in class has their favourite food, which they lik
often and on various occasions. But some people cannot eat certain food
state, religious or ethical beliefs, or other reasons. In such cases, people w
food need to modify and adjust recipes to cater to their needs. But how

1. Get into pairs. In each pair, colour code the foods that are suitable
Try to explain why other foods are not suitable for them.

ob	tooth decay	high blood pressure	milk allergy	pregnancy	lacto intole
sushi	sushi	sushi	sushi	sushi	sush
macaroni cheese	macaroni cheese	macaroni cheese	macaroni cheese	macaroni cheese	macar chee
tuna salad	tuna salad	tuna salad	tuna salad	tuna salad	tuna sa
corn tortilla	corn tortilla	corn tortilla	corn tortilla	corn tortilla	corn tor
apple crumble	apple crumble	apple crumble	apple crumble	apple crumble	appl crum
hot dog	hot dog	hot dog	hot dog	hot dog	hot d
quiche Lorraine	quich	quiche Lorraine	quiche Lorraine	quiche Lorraine	quich Lorra
rice pudding	rice pudding	rice pudding	rice pudding	rice pudding	rice pud
cottage pie	cottage pie	cottage pie	cottage pie	cottage pie	cottag
chocolate	chocolate	chocolate	chocolate	chocolate	chocol
rare beef steak	rare beef steak	rare beef steak	rare beef steak	rare beef steak	rare be steak
cheesecake	cheesecake	cheesecake	cheesecake	cheesecake	cheese
sausage rolls	sausage rolls	sausage rolls	sausage rolls	sausage rolls	sausage
cheddar and ham sandwich	cheddar and ham	sandwich	cheddar and ham sandwich	cheddar and ham sandwich	cheddar ham sandw
pizza margherita	pizza margherita	pizza margherita	pizza margherita	pizza margherita	pizza marghe
fish and chips	fish and chips	fish and chips	fish and chips	fish and chips	fish a chip

2. What do you think would happen if they tried them anyway?

Obesity .....

.....

Tooth decay .....

.....

High blood pressure .....

.....

Milk allergy .....

.....

Pregnancy .....

.....

Lactose intolerance .....

.....

Coronary heart disease .....

.....

Coeliac disease .....

.....

Activity 24 – Adjusting and Modifying Re
Different Dietary needs – Uncle Sag

Teacher's Notes

	Plenary activity: Uncle Sage Advice
Aim of the activity	To recap knowledge abo[illegible] to adjust and modify recipes t[illegible] various groups [illegible]
Teache[illegible] instructi[illegible]	Split t[illegible] into groups of four. Copy the student's worksh[illegible] a[illegible] recipes and characteristics labels. Ask each group to draw one recipe and one label. Allow stud[illegible] many modifications as possible to make the recipe healthier o[illegible] individual.

Answers

Instead of using provided recipes, you can also cut out recipes from newspapers c[illegible] own.

Some ideas could include:

- replacing bacon with a low-sodium variety
- replacing beef mince with a low-fat variety
- replacing cheese with a vegan cheese (e.g. tofu)
- replacing whole milk with a skimmed one
- adding raisin, nuts or chopped fruit instead of su[illegible]
- using milk instead of cream
- replacing mayonnaise with a l[illegible] variety, or replacing part of it with yoghu[illegible]
- adding grated or ch[illegible] vegetables to increase the amount of fibre
- replaci[illegible] w[illegible] safe alternative, e.g. silken tofu or apple sauce
- replacin[illegible] flour with a wholemeal one

What to pay attention to for each individual:

John: needs to cut down on sugar, saturated and total fats, needs to increase con[illegible] dietary fibre

Jane: needs to eat more foods rich in vitamin D and calcium, such as oily fish, sar[illegible]

Chris: needs to avoid wheat, rye and barley, so plain flour in all recipes must be s[illegible] flour

Laura: needs to avoid eggs and milk in all forms, but also would benefit from cutt[illegible] (to avoid tooth decay)

Ethan: needs a lot of protein and energy, so would benefit from extra-lean meat, [illegible] substitutes in recipes

Layla: needs more prote[illegible] the rapid growth of her body, and more iron c[illegible] benefit from [illegible] tar[illegible]ndly, high-protein foods such as tofu, soy, quinoa, hum[illegible] Protein, Qu[illegible] but also from foods rich in vitamin C, which improves iron abs[illegible]

Ibrahim: needs to cut down on saturated fats, total fats, sugar and salt; may nee[illegible] use ready-made sauces (such as Worcester sauce and mayonnaise) and preserved [illegible] capers)

Zara: needs to cut down on salt consumption

Recipes

Quiche Lorraine

Pastry: 225g plain flour, 100g [illegible] salt

Filling: 6 rashers [illegible] bacon, 5 large eggs, ½ pint single cream, 150ml whole milk, 150g Cheddar cheese

Serves 4

Fishcakes

Fish cakes: 450g had[illegible] 350g potatoes, 1 egg breadcrumbs, 500ml

Tartare sauce: 125ml 1 shallot onion, 1 tsp parsley, 1 tsp choppe

Serves 6

Leek and potato soup

225g potatoes, 2 leeks, 1 litre chicken stock, 150ml double cream, 50ml sunflower oil, 1 onion, salt, pepper

Serves 6

Cauli[illegible]

1kg cauliflower, 50g [illegible] 500ml whole milk, 1 t cheese, salt, pepper

Serves 8

Ham and cheese sandwich

2 slices soft white bread, 20g butter, 50g smoked ham, 50g Cheddar cheese

Serves 1

F[illegible]

125g butter, 125g ca[illegible] syrup, 300g rolled oa[illegible]

Serves 16

Spaghetti bolognese

350g white spaghetti pasta, 2 [illegible] garlic cloves, 500g beef mi[illegible] chopped tomatoes, [illegible]ml [illegible] stock, 1 tbsp Worcester sauce, sal[illegible]per

Serves 4

F[illegible]

Crust: 575g plain flou

Stuffing: 800g pork s[illegible] 250g smoked bacon, egg for glazing

Serves 16

Characters

Case study 1: John

Age: 52

Profession: chef

Physical activity: only at work

Dietary needs: obese, needs to lose weight

Case study 2: Jane

Age: 75

Profession: retired t

Physical activity: w

Chihuahua 3 times

Dietary needs: osteop

calcium and vitam

Case study 3: Chris

Age: 15

Profession: student

Physical activity: member of the school's rugby team

Dietary needs: coeliac (cannot eat gluten)

Case study 4: Laura

Age: 8

Profession: student

Physical activity: trai

three times a week

Dietary needs: allergi

and milk

Case study 5: Ethan

Age: 21

Profession: teach

Physical a plays rugby twice a week

Dietary needs: high physical activity (needs a lot of energy and protein to improve performance)

Case study 6: Layla

Age: 13

Profession: student

Physical activity: cur

as has broken her l

ago

Dietary needs: begins

recently became ve

(will need more iro

Case study 7: Ibrahim

Age: 35

Profession: doctor

Physical activity: cycles to work every day

Dietary nee co heart disease (needs to contro blood cholesterol levels and cut down on saturated fats and sugar)

Case study 8: Zara

Age: 45

Profession: sales ma

Physical activity: wor

hours so has no ti

the gym

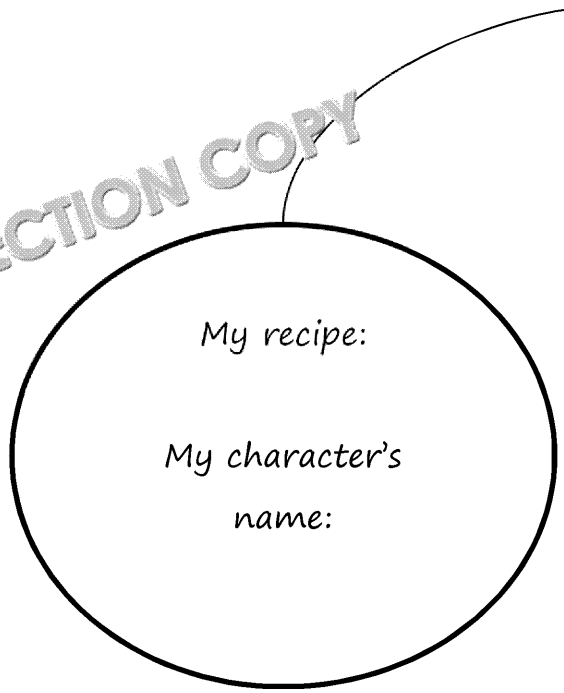
Dietary needs: high b

pressure (needs to

Uncle Sage Advice

Meet Uncle Sage Advice – he's a funny, supportive and surprisingly competent old guy who loves to help others and lend a hand with all tasks from fixing a leaking sink to cat-sitting to lawnmowing. Well, he's got sick and needs some assistance in adjusting some food recipes for his neighbours.

Your teacher has prepared some food recipes and people's dietary needs cards. Get in groups of four and draw one card from each stack. Your task is to suggest as many ways to adjust or modify the recipe as possible to make it suitable for your drawn individual! Do your best, you don't want to disappoint Uncle Sage Advice, do you?



Activity 25 – Food Allergies – Hot

Teacher's Notes

	Plenary activity: Hot potato
Aim of the activity	To recap knowledge about food allergens.
Teacher's instructions	Get pupils to stand in a circle. Students should throw a ball (or naming a food allergen from allergens required to be listed on who does so correctly get a point. The student who collects th

Answers

There are 14 groups of food allergens that have to be indicated on a food label by the wider category (e.g. peanut) or a specific product that contains them (e.g. pea case, students should also state what allergen occurs in the product (e.g. bread –

Possible answers could include:

Allergen	Examples of answe
celery	celeriac, celery salt, Waldorf salad, stock cubes
cereals containing gluten	wheat, rye, barley, spelt, Khorasan wheat, breadcru cookies, pasta, white sauce, soy sauce, beer, pastry,
crustaceans	crab, lobster, prawn, scampi, shrimp paste, crayfish
eggs	mayonnaise, pasta, quiche, pastis, pastry
fish	all fish species, fish sauce, Worcester sauce, stock cu
lupin	seeds, bread, flour, pasta
milk	butter, cream, powdered milk, milk chocolate, yogh white sauce, rice pudding, custard
molluscs	mussels, snails, squid, whelks, octopus, oysters, clam
mustard	mustard powder, mustard seed, pickles, curry, sauce
peanuts	peanut butter, cookies, peanut oil, stir-fry, curry, sat M&M's®
sesame seeds	bread, breadsticks, tahini paste, sesame oil, hummus
soya	tofu, edamame beans, soy sauce, TVP, soy cream, so
sulphur dioxide (sulphite)	dried fruits, raisins, apricots, prunes, wine, beer
tree nuts	cashew, almonds, Brazil nuts, hazelnuts, pistachios, v chocolate bars, curry, tikka masala sauce

*Oats are naturally gluten-free, but are often processed in factories alongside gluten-conta become contaminated.

Hot Potato

Food allergy is a reaction of your immune system to a particle in food. As your mouth and throat can swell up, you can develop hives (a red rash on your skin) or experience difficulties breathing. Your blood pressure can d and you can develop a dangerous reaction calle[illegible]ylactic shock.

There are 14 food allergens which [illegible]mmon that they have to be indicated on a food label [illegible]et's see how many of them you know.

Grab a sm[illegible] a[illegible]tand in a circle. Throw the ball while naming one o these 14 fo[illegible]ergens. Students who correctly name an allergen (or a fo containing it) get a point. Make sure nobody repeats the answers! The student who collects the most points, wins!

You can use the table below to note down the allergens you have learnt about today!

	Main food allergens	Foods that co
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		

Activity 26 – Food Intolerances – (Not So

Teacher's Notes

	Plenary activity: Fact file
Aim of the activity	To recap information about the most [illegible]mon food intoleranc gluten intolerance (coeliac dis[illegible]
Teacher's instructions	Split the class into pa[illegible]y the student's worksheet accor Allow studen[illegible]ces to complete the fact files about lact Then [illegible] their answers and analyse them to discuss in the

Answers

Lactose Intolerance

'Origin' could include what lactose is / where it occurs (a disaccharide found in mi

'Charges' could include most common symptoms, such as bloating, diarrhoea, sto

'Last seen' could include foods which contain it, e.g. milk, butter, milk chocolate, v

Coeliac Disease

'Origin' could include what gluten is / where it occurs (a protein found in cereals).

'Charges' could include most common symptoms, such a[illegible]ting, diarrhoea, dam impaired absorption.

'Last seen' could include foods wh[illegible]n it, e.g. wheat, barley, rye and all foo bread, pasta.

(Not So Secret) Fact Files

Food intolerance is a reaction of the digestive system to a food product. Food intolerances can be either acquired during a lifetime, or develop ea predispositions.

The X Archive has a cabinet full of secret dat . You need to find the hidde Ms Lactose Intolerance and her pa t e . rime, Mr Coeliac Disease. Go complete the fact file whi ll h lp you catch the mischievous couple!

Suspect: *Ms Lactose Intolerance*

Origin:

Charges:

Last seen:

Suspe

Origin:

Charges:

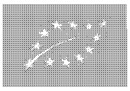
Last seen:

Activity 27 – Food Labelling – How Much

Teacher's Notes

Starter activity: How much do you kno	
Aim of the activity	To interpret the information incl[illegible]od labels.
Teacher's instructions	Split the class into gr[illegible] four. Copy the student's worksh[illegible] Allow stude[illegible]es to complete the activity. Take 5 m[illegible] were [illegible]

Answers



European Union organic food logo: may be used on all foods prod[illegible] fruits, vegetables, meat, milk, dairy products.

European Vegetarian Union mark: may be used on all products sui[illegible] from meat.

Universal mark used on food packaging to indicate that it is suitab[illegible] all packaging which is recyclable, e.g. paper, carton, tin, glass.

Gluten-free mark: may be used on [illegible] which are free from g[illegible] rye or barley.

[illegible] use with food: may be used on food packaging that ha[illegible] h food, e.g. plastic plates and cups.

Fairtrade: may be used on foods which were produced in compli[illegible] bananas, coffee, sugar.

Marine Stewardship Council: may be used on all fish and shellfish [illegible] in a sustainable way, e.g. canned tuna.

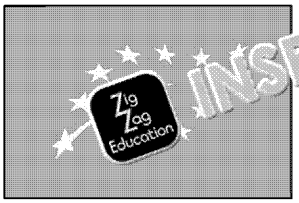
Soil Association: may be used on all food pro[illegible]ucts that were asse[illegible] in the UK.

RSPCA: [illegible] on foods that were produced with respect t[illegible] ea[illegible]

How Much Do You Know?

If you look at a food's package, you may notice various signs and symbols. But do you know what they all mean? Let's check how much you know!

Under each of the signs below write what you think it means. Then try to find them on!



What does it mean?

.....

What foods is it used on?

.....

.....

.....

What does it mean?

.....

What foods is it used on?

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Wha

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What does it mean?

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What foods is it used on?

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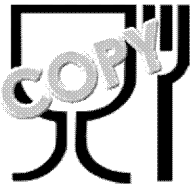

What does it mean?

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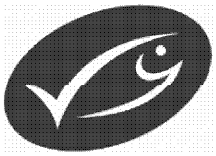

What does it mean?

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What foods is it used on?

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What does it mean?

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What foods is it used on?

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Activity 28 – Analysing and Interpreting Questionable Label

Teacher's Notes

	Plenary activity – applied questions
Aim of the activity	To develop practical skills that enable students to make inform
Teacher's instructions	Copy student's worksheet accordingly to allow one per pe Allow students 10 minutes to answer the questions, and then

Answers

1. 200 g (half a can).
2. 162 kcal.
3. Beans (it is first in the list of ingredients, which means that it was used in the
of beans may also be used, but navy or haricot beans are most commonly us
4. There are no major allergens in baked beans.
5. Baked *beans* are safe for consumption by both vegetarians and vegans as the
animal origin.
6. RI means Reference Intake. It shows how much
beans, so that we can easily calculate how m
baked beans would not be a g
7. This is because the
an unp
8. This is b
sealed and sterilised. Thanks to this, oxygen is removed from the tin and ba
food spoilage.

Questionable Label

Food labels have many various functions: they inform what food is contai
give information about its nutritional value, origin, instructions for use an

Inspect the information found on a food label belo[illegible]d answer the follo

Baked beans in rich tomato sauce, 400 g

Nutrition Facts			
	per 100 g	per portion (1/2 can)	% RI per serving
Energy	78 kcal	162 kcal	**8%**
Fat	0.2g	0.4g	**1%**
Saturates	trace	trace	**<1%**
Carbohydrates	12.5g	25.9g	**10%**
Sugars	4.7g	9.8g	**11%**
Proteins	4.7g	9.7g	**19%**
Fibre	3.7g	7.7g	
Salt	0.6g	1.2g	**21%**

Ingredients
water, suga
cornflour, s
extract

After openi
beans into
container. F

Best befor

1. How many grams is a portion of baked beans?

.....

2. How many calo[illegible]e provided with a portion of baked beans?

.....

3. Which ingredient was used in the largest amount?

.....

4. Are there any allergens in the baked beans? What are they?

.....

5. Can baked beans be eaten by vegetarians? How about vegans?

.....

6. What does RI sta[illegible]? Why is it important?

.....

.....

7. Why should you pour the beans into a bowl after opening the can?

.....

.....

.....

.....

8. How is this process for baked beans to have a very long shelf life?

.....

.....

.....

.....

Did you know?

No matter how many beans you eat during the day, it counts as **one** of your **5 a day** only!

This is because, although beans are high in fibre, they provide fewer other nutrients, so it's important to eat other fruits and vegetables to provide them all.

Activity 29 – Kitchen Equipment – Tools of Game

Teacher's Notes

	Starter activity: Taboo
Aim of the activity	To introduce various kitchen equipment and utensils and unde
Teacher's instructions	Copy enough of this worksheet to allow one per person. Each student has to prepare a list of five items or utensils foun 'taboo' words for each. Then students should get into groups game to see how many words their classmates will guess.

Answers

There are no good or bad answers as long as students understand the rules of the

An example could include 'a knife' – taboo words (words which cannot be used w 'cutting, chopping, vegetable, sharp, pointed, slicing'.

Tools of the Trade Taboo Game

So it's happening – you're going to learn how to prepare and cook food! Before you do that, you need to get to know what utensils and equipmen and learn how to use them properly!

Go around the class and list five items or ute[illegible] [illegible]hen for each of them words cannot be used when desc[illegible] [illegible]se items.

Get into groups of fo[illegible] [illegible] to describe your utensils. How many of th guess? Do[illegible] thi[illegible] you could have made the clues more difficult?

Utensil/equipment piece:	**Utensil/equipment**
Taboo words: 1. 2. 3. 4. 5. 6.	Taboo words: 1. 2. 3. 4. 5.
Utensil/equipment piece:	**Utensil/equipment**
Taboo words: 1. 2. 3. 4. 5. 6.	Taboo words: 1. 2. 3. 4. 5. 6.
Utensil/equipment piece:	**Utensil/eq**
Taboo words: 1. 2. 3. 4. 5. 6.	Taboo words: 1. 3. 4. 5. 6.

Activity 30 – Food Safety – Hot

Teacher's Notes

Starter activity: Hot or cold?	
Aim of the activity	To int[illegible]ical temperatures for food safety.
Teacher's instructions	S[illegible] the class into groups of six. Copy the student's worksheet accordingly. Each student in each group will take it in turns to moderate th Give each student in each group one of the labels, so that they the questions only. The rest of the pupils must guess the corr who knows the answer helps them by saying 'cold', 'getting wa the correct one.

Answers

The temperature food should be chilled at: from 0 to 5 °C.

The temperature food should be frozen at: most commonly -18 °C, but different from -12 °C to even -80 °C.

Body temperature: 36.6 °C.

Danger zone temperature: from 5 to 63 °C

Boiling temperature: for [illegible] °C, for most foods it's above that temperatu

Core temp[illegible] o[illegible] cooked food: 75 °C.

Answer Cards

Cut these out and give one to each student in each group.

What is the temperature food should be chilled at?

From 0 to 5°C but walk-in chillers can be set up to 8°C.

What is the temperature food should be frozen at?

Most commonly -18°C but use temperatures from

What is body temperature?

36.6°C.

It provides perfect conditions for microorganisms' growth!

What is the danger zone?

From 5 to 63°C.

Danger zone temperatures are temperatures in which bacteria grow fastest!

What is the temperature at which water boils?

Water boils at 100°C.

Other beverages and most foods will boil at different temperatures though!

What is the core temperature?

75°C.

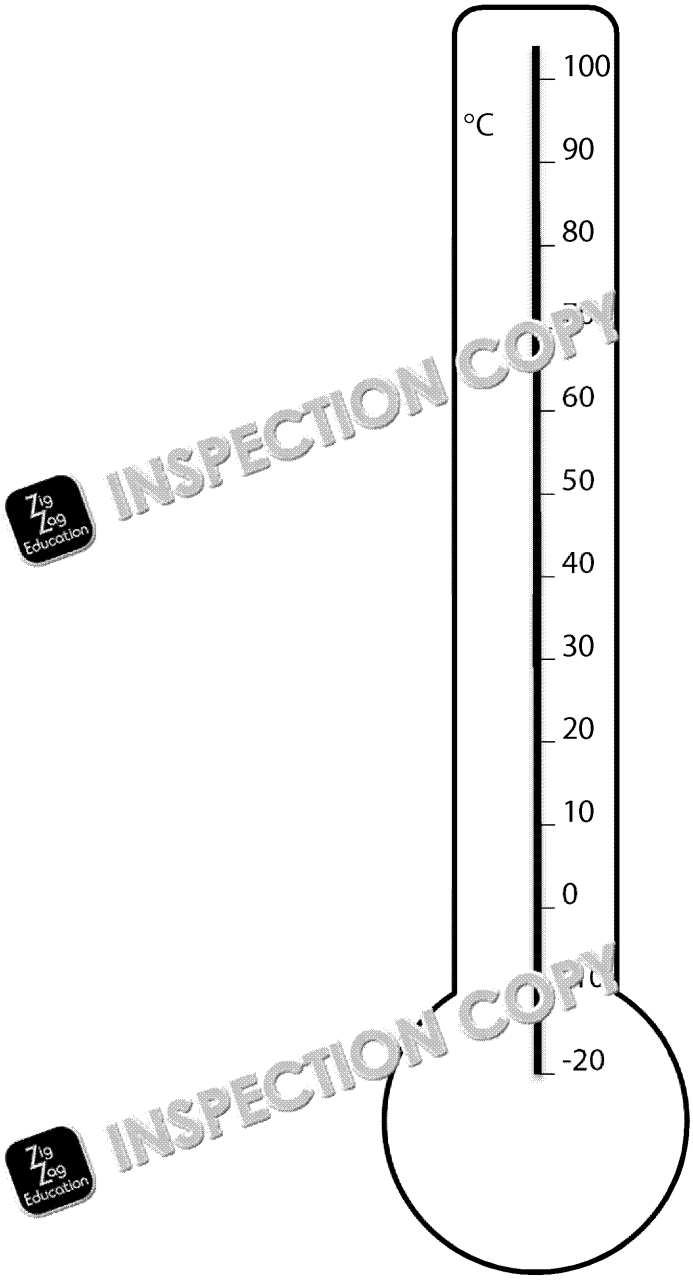
It can be checked by using a probe.

Hot or Cold?

Microorganisms such as bacteria, mould and yeast need water, warmth, ti
and food to grow. In optimal conditions (best for growth) they are able to
20 minutes! This means that even if there is only one bacterium in food, v
conditions it will multiply – after 20 minutes there will be two bacteria, af
minutes – eight, and after only three hours – 512!

To control and prevent microorganisms' growth, you need to adjust or co
Water can be removed by drying, time can be limited by eating food soon
what about temperature?

Get into groups of six. Your teacher will give each of you a card with a qu
turns, you will have to ask the question to other students in your group an
them find the answer!



Activity 31 – Health and Safety Practices

Teacher's Notes

	Plenary activity: Charades
Aim of the activity	To introduce and explain how to deal [illegible] food in a healthy a[illegible] cross-contamination, food poi[illegible]g [illegible] allergic reactions.
Teacher's instructi[illegible]	Split the class into fo[illegible]ps. Copy the student's worksheet Assign to ea[illegible] gro[illegible]e of the 4 Cs of food safety (i.e. chillin[illegible] conta[illegible]). In each group, students should list health and t[illegible]p to prevent food poisoning and prepare food in a safe In turns, students should demonstrate their ideas to other gro allow them to use the board to make it easier).

Answers

Some ideas for each field could include:

chilling

- covering the food
- cooling the food completely before putting it into the fridge
- keeping raw meats on the bottom shelf of the fridge
- storing raw and cooked foods separately / on separate shelves
- controlling the temperature in the fridge

cooking

- controlling the food's tem[illegible]atu[illegible]e with a food temperature probe
- using separate ut[illegible]s for raw and cooked foods
- cookin[illegible]oo[illegible]horoughly
- thawing[illegible]s completely before cooking
- checking that the food is cooked with a skewer, visual checks, food temperat

cleaning

- sorting dishes into cleaner and dirtier before washing up
- washing the cleaner dishes first
- not putting knives into the sink
- disinfecting the kitchen counter with an antibacterial spray
- using hot, soapy water when washing up
- using only clean kitchen towels

cross-contamination

- preparing high-risk foods separat[illegible]
- using colour-coded ut[illegible]s [illegible]nives, chopping boards)
- washing th[illegible]ut[illegible]s th[illegible]roughly after each use
- washin[illegible] before and after dealing with a high-risk food

Handy Hygiene

When cooking, you not only need to know how to make a tasty dish, but a
to make it safe to eat. But how to do it? What do you have to remember?
4Cs of food safety will help!

Get into fo[illegible] pu[illegible]e for each C. In your group, think about what yo
food is ma[illegible] safe, hygienic way. But sshhh! Don't say it too loud! Pla
your ideas to your classmates without speaking!

My topic:
What can I do in this area to make food safe?

Teacher's Notes

	Plenary activity: Hot seat
Aim of the activity	To recap information about corre[illegible] storage conditions.
Teacher instructions	Ask students to pl[illegible] hairs in the middle of the class an you have [illegible] than pupils). Play [illegible] for 10 seconds and ask students to dance aro [illegible]ould take a seat. The one without a chair has to answ classmates about storage conditions. If the student answers co of the student who asked the question (and that student leaves answered incorrectly, (s)he leaves the circle. After each round there are always fewer chairs than students. The game ends w left. Ensure that there are no obstacles which could cause students tables and place them against the walls, ask students to place th Remind students not to run or push each other, and to abide b

Answers

The questions asked by students should refer directly to different storage conditio each student has to answer one, two or more questions (e.g. lower-ability studen but higher-ability students may be asked to answer more).

Questions could include:

- Why do we have to cover food when stor[illegible] it? ([illegible] prevent cross-contamin foods, and to limit contact with [illegible] well as to prevent tainting – takin
- What is the correct te[illegible]ure for storing food in a fridge? (from 0 to 5°C
- What is th[illegible] co[illegible]perature for storing food in a freezer? (below -18°C
- On wh[illegible]lf of a fridge should we store raw chicken? (the bottom shelf)
- Why ca[illegible] some foods be stored in a cupboard? (because they have no water them)
- Why do some foods have to be preserved? (to kill microbes which could ca
- Why does food have to be stored in a 'cool, dry place'? (Bacteria need warm lack of these features will disable the process.)
- Why on a carton of UHT milk does it say to 'refrigerate after opening'? (bec carton after opening, and cause spoilage)
- How is UHT milk produced to have such a long shelf life? (It is sterilised at a short time, which kills all bacteria and spores, so they cannot spoil it.)
- What is a shelf life? (It's the amount of time a food can be safely stored for, value, sensory characteristics or safety.)
- Name three methods of food preservation ([illegible]g. [illegible]ing, bottling, sterilising, f pickling).
- Can bacteria actually he[illegible] pr[illegible]ve food? (Yes, probiotic bacteria are com such as certain [illegible] cheeses and vegetables, e.g. sauerkraut.)
- Why a[illegible]e foods packaged in dark-coloured glass? (to protect it from su loss)

Hot Seat

Storing food in correct conditions is very important to maintain its freshness, flavour, nutritional value and safety. But what ARE the correct conditions? Well, you're about to find out!

Ask all your classmates to put their chairs in the middle of the classroom and then remove one of them – there should be one chair less than all of you. Now your teacher will play some music for a short time – move around sensibly and when the music stops, take a seat! The person who doesn't manage to grab a chair, has to answer a question about food storage. If they answer correctly, they take the seat of the person who asked the question (and that person has to leave the game); if they answer incorrectly, they leave the game! After each round remove one chair. The game ends when there is only one student left!

After the lesson…

List three things you learnt today.

1. .....

2. .....

3. .....

List two things you still want to learn about food storage.

1. .....

2. .....

List one thing that surprised you.

1. .....

Activity 33 – Food Preparation – Ready,

Teacher's Notes

	Starter activity: Spider diagram
Aim of the activity	To help students understand the id[illegible]n se *en place* when pr[illegible]
Teacher's instruct[illegible]	This activity needs to be carried out at the beginning of a prac[illegible] Explain to students what they are going to cook today and han[illegible] [illegible] student's worksheet accordingly to allow one per pe[illegible] Allow students up to 10 minutes to complete the activity, and prepare their workstation.

Answers

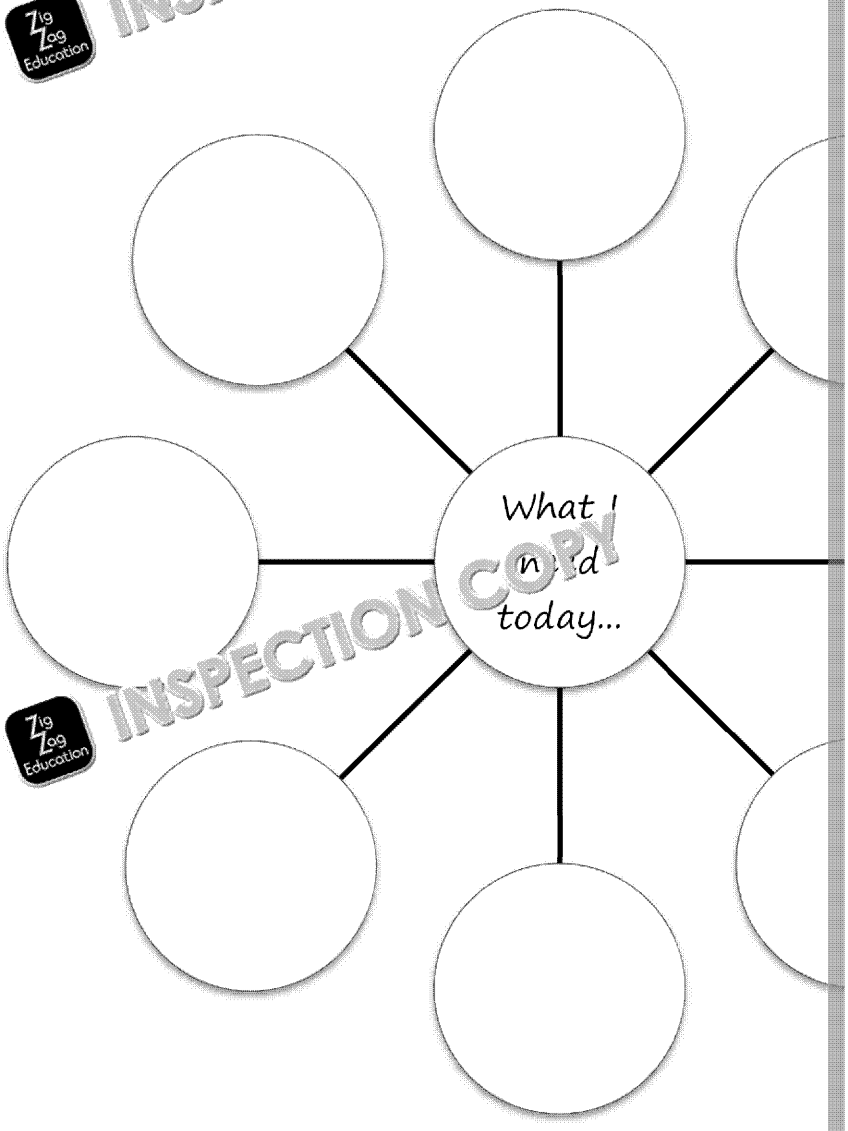
Reasons why *mise en place* is important include:

- to have all ingredients, spices, herbs, condiments, utensils and tools at hand
- to save time
- to be able to follow the recipe/procedure
- to ensure that the proper amount of ingredients is used
- to make sure that you add salt (or any other ingredient) only once
- to make sure that raw ingredients are separate from those that don't need c[illegible]
- to allow a smooth workflow
- to help to prevent unexpected incidents and mistakes, e.g. burning onions wh[illegible] vegetables

Ready, Steady, Draw!

Food lessons aren't all about theory. In fact, they are here to teach you h
healthy and tasty dishes to feed your family and friends!

Your teacher will tell you what you are cooking tod t is a good practi
before you begin cooking – this is called mis e ace. Read the recipe a
diagram below all the equipment d sils you're going to need! Mak
available in the class!



Don't forget to prepare all of the ingredients too!

Why do you think it is important to prep e ything before you start c

1. .....
2. .....
3. .....

Teacher's Notes

	Starter activity: Complete the table
Aim of the activity	To introduce various ways of food preparation and cooking to
Teacher's instruct	Split the class into pairs. Copy the student's worksheet accor Allow students 5 minutes to complete the table. Then, get the group, and add even more cooking and preparation methods.

Answers

Some ideas could include…

- **tomatoes** – raw in a salad or sandwich, stewed into ketchup or chutney, ch tomato sauce, tomato paste to spread on bread, grilled to serve as a side
- **strawberries** – raw in a drink or cocktail, in a milkshake, blended into a cou blended and frozen into a sorbet, stewed into jam or jelly, served with ice cr freeze-dried
- **eggs** – fried, soft-boiled, hard-boiled, scrambled, omelette, cloud eggs, poach
- **bread** – in a sandwich, as croutons, as breadcrumbs, in a bread-and-butter p hollowed out to serve a soup in
- **beef (meat)** – raw as carpaccio, stewed, grilled, roasted, simmered, fried, as
- **milk** – in custard, in rice puddi[illegible] white sauce, to poach fish, in a potato m in milkshakes, to make [illegible]
- **tuna** – f[illegible] ca[illegible]ved with sushi, canned can be served in salads, tuna p into a [illegible] teaks can be grilled, fried, steamed, poached

Master of Creation

Cooking food helps to kill dangerous bacteria, improve the texture and appearance,
and prevent food spoilage. But it also helps to develop new flavours and increases the variety of the diet! Professional chefs often have to be very creative to ensure that their food is not only tasty, but also original and different from food offered by their competitors.

Get into pairs and think about different ways of preparing and cooking the following ingredients. For each ingredient list THREE different methods in which it can be prepared, cooked or served.

	Three ways to prepare, cook or
tomatoes	
strawberries	
eggs	
bread	
beef (meat)	
milk	
tuna	

Now boost your creativity even more. Swap your table with another ways of preparing, cooking or serving the foods above!

Activity 35 – Jobs in the Food Industry – C

Teacher's Notes

	Starter activity: Rebus
Aim of the activity	To introduce the variety of job ro[illegible] career paths within t
Teacher's instructions	Split the class into pa[illegible] by the student's worksheet accor[illegible] Allow stude[illegible] up t[illegible] minutes to solve the puzzles, and then their [illegible] puzzles.

Answers

1. **Food scientist**

   [(door backwards) (where R equals F) + S + (cent + I) + list (minus the L)]

2. **Waiter**

   [Waist (minus the S) + pear (minus P and minus A)]

3. **Celebrity chef**

   [scale (minus the S) (where A equals E) + brick (where CK equals TY) + che[illegible]

4. **Restaurant manager**

   [store (minus STO) + star (where R equals UR) + a[illegible] + han + age + R]

5. **Food safety officer**

   [foot (where T equals D) + safe[illegible]Y + offer (plus IC inside)]

Career Paths Rebus

The food industry is very broad and varied. There are thousands of peopl
to ensure everybody can access good, healthy and safe food. But who ar

Solve these rebus puzzles to find out!

1.

Answer: .....

2.

Answer: .....

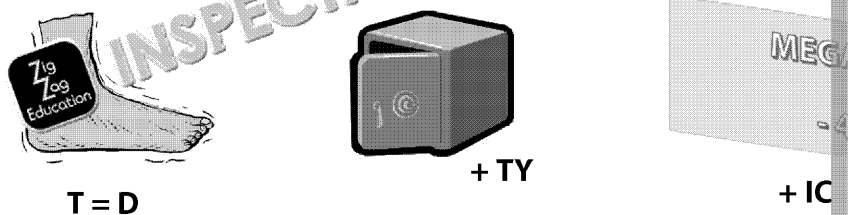
3.

Answer: .....

4.

Answer: .....

5.



Answer: .....

All done? Great! Now list five other job roles within the food industry. O
and create your own rebus puzzle for a classmate to solve!

1. .....
2. .....
3. .....
4. .....
5. .....

(Fold the page here and cut so that your partner doesn't see t

Answer:.....