



Pre-Assessment Tasks

for BTEC Nationals Health and Social Care
Unit 14: Physiological Disorders and their Care

For Pearson BTEC Level 3 National in Health and Social Care:
Extended Certificate (601/7197/2)
Foundation Diploma (601/7199/6)
Diploma (601/7194/7)
Extended Diploma (601/7198/4)
Extended Diploma in Health Studies

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Teacher's Introduction

These activities are designed to provide opportunities for students to try out their classroom learning, prior to starting their assignments. They're intended to test out knowledge, so that teachers and students can identify gaps in learning, and also to consolidate and apply knowledge to specific circumstances, such as through case studies.

Many of them involve group or paired working, which allows students to talk topics through and learn from each other. The case studies offer examples that may be used in written coursework or at least give an opportunity to consider the impact of physiological disorders on all aspects of a service user's health and well-being.

There is an activity for each point on the specification, trying to include visual, auditory and kinaesthetic elements. Visual, because they all involve reading, images and writing, such as an email. Auditory, because groups and pairs require students to talk to each other and share their ideas and knowledge. Kinaesthetic, because many of them involve making or doing something, such as matching, pairing or making a mind map.

Each activity is designed to be short and stimulating, but some offer opportunities to extend the activities through relevant discussions and extension tasks.

August 2019

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Specification Reference Table

This table will enable you to pick and choose how to use these activities, either as a starter (to consolidate knowledge before teaching a topic) or as plenaries (i.e. to consolidate knowledge after teaching a topic) relevant to the specification topic you are teaching. While each activity has a starter or a plenary you should be aware that many starter and plenary tasks may be interchanged to teach the content of the specification. Some may not be suitable as well as a starter or plenary, at your discretion when to use each task.

Specification reference	Activity	Resource
Learning Aim A: Investigate the causes and effects of physiological disorders		
A1: Types of physiological disorders and effects on body systems and functions	1 Endocrine system disorders: Match up	
	2 Endocrine system disorders (diabetes type 2): Case study (Email)	
	3 Nervous system disorders (Parkinson's disease and dementia): multi-choice quiz	
	4 Musculoskeletal disorders (rheumatoid arthritis): 'How much do you know?'	
	5 Respiratory system disorders (chronic obstructive pulmonary disease (COPD) and asthma: Case study and review *	
	6 Circulatory system disorders: Define and question	
	7 Cancer (bowel and prostate cancer): Black and green mind map	Black and Green
	8 Impact of physiological disorders on physical, mental, social and emotional health: 'Have a chat' case study	
A2: Causes of physiological disorders	9 Inherited traits: Match-up	
	10 Lifestyle choices: 'Speed talking'	Speed
	11 Diet: 'Dietary bingo'	
	12 Environment (housing): 'Spin the wheel'	
	13 Environment (air pollution): 'Fishbone'	
A3: Signs and symptoms of physiological disorders	14 Signs and symptoms experienced by the individual: Timed multi-choice quiz	
Learning Aim B: Examine the investigation and diagnosis of physiological disorders		
B1: Investigative procedures for physiological disorders	15 General measurements: Match-up	
	16 Investigative procedures appropriate for each individual: Case study and diagnose	
B2: Diagnostic procedures for physiological disorders	17 Procedures based on specific signs and symptoms: 'Speed dating'	Speed
	18 Importance of recognising non-specific or confusing symptoms: Case study (letter)	

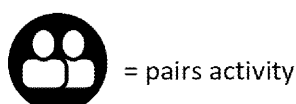
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Specification Reference	Activity	
Learning Aim C: Examine treatment and support for service users with		
C1: Provision of treatment and support	19	Medication: Black and green mind map
	20	Surgery: Define and cloze paragraph
	21	Rehabilitation programmes: Case study and advice
	22	Formal and voluntary therapies: Advantages and disadvantages
	23	Advice on lifestyle changes: Spider diagrams
C2: Types of carers and care settings	24	Professional carers: Keyword paragraph
	25	Informal carers: Case study (email)
	26	Private and voluntary carers: 'How much do you know?'
	27	Care settings: Advantages and disadvantages
	28	Care settings: 'Pass the hat'
Learning Aim D: Develop a treatment plan for service users with physiological		
D1: Care methods and strategies	29	Assessment of care needs: Case study (letter)
	30	Reviewing care needs: Case study (home visit)
	31	Validity and reliability of sources of information on possible treatments: Article and keyword
D2: Treatment planning processes	32	Cycle of planning: Black and green mind map
	33	Individual needs, including culture, gender, age, religion and disability: Case study and meet *
	34	The purpose and aim of care for an individual, outcomes to be achieved and actions to be taken: Case study and action
	35	Overcoming potential barriers: Case study and email
	36	Professional responsibilities: Keyword paragraph
	37	Advantages and disadvantages of different types of treatment: Case study and decide
	38	Scheduling and timescales for achievement: Case study, email, and

Activities marked with * are extension activities.



Activity 1 – Endocrine system disorders

Teacher's notes

Plenary Activity: Match-up	
Aim of the activity	To encourage students to use their knowledge of anatomy, physiology, hypothyroidism and hyperthyroidism to work out the effects of these disorders on the endocrine systems.
Teacher instructions	<p>Prior to lesson (if possible): The cards should be photocopied on to card and laminated, for re-use.</p> <p>During lesson: Get students into pairs or small groups. Hand each pair or group a set of cards. They should match up (by colour-coding and numbering) the disorders, with the effects and reasons. Then check through student answers as a group. Note that some disorders can have more than one effect. This activity should take no longer than 15 minutes.</p>

Answers

Disorder	Effects	Reasons
Diabetes types 1 and 2	14. Poor circulation, especially in hands and feet, leading to tissue damage and possible amputations	<p>In types 1 and 2 diabetes, raised levels of sugar in the blood cause damage to the blood vessel walls, leading to fatty deposits and plaque being laid down.</p> <p>This will cause the blood vessels to become narrower, meaning less oxygenated blood can reach the tissues.</p>
	12. Increased likelihood of a stroke	<p>Raised levels of sugar in the blood stream, in types 1 and 2 diabetes, cause damage to the blood vessel walls, leading to a risk of fatty deposits and plaque being laid down.</p> <p>This will cause the blood vessels to become narrower, meaning less oxygenated blood can reach the brain.</p>
	13. Eyesight problems	In types 1 and 2 diabetes, raised blood sugar levels can cause tiny blood vessels in this part of the body to become damaged.
Diabetes types 1 and 2 Hypothyroidism	15. Heart disease	<p>Thyroxine (thyroid hormone) plays a role in keeping the heart muscle strong and maintaining a healthy rhythm. Hypothyroidism reduces thyroxine levels, which can eventually weaken the cardiac muscle, leading to heart failure.</p> <p>In types 1 and 2 diabetes, high levels of sugar in the blood can cause damage to the walls of the blood vessels, leading to fatty deposits and plaque being laid down.</p>
	5. Problems in pregnancy	<p>For a woman with type 1 or 2 diabetes, pregnancy can cause the body to need more insulin to keep blood sugars stable. There may be complications for the mother and also of the mother having a larger baby, making it difficult to deliver naturally through the pelvis, making a caesarean section more likely.</p> <p>The body will also need more thyroxine levels, which a healthy thyroid gland would normally produce.</p>

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Disorder	Effects	
Hypothyroidism	6. Myxoedema coma	Thyroxine helps the body to maintain a normal body temperature and contributes to temperature maintenance.
	3. Tiredness	Thyroid hormone is essential for the metabolic rate, causing the individual to feel cold, low body temperature, dry skin and tiredness.
	2. Disturbance to menstrual cycle	Thyroid hormones help control the menstrual cycle. Hypothyroidism can lead to heavier and longer periods.
	7. Low mood and depression	There is a link between depression and hypothyroidism, especially for many years. While the exact mechanism is a complex interplay between thyroid hormones, brain structures and proteins in the brain.
	11. Goitre	The most common cause of this is an iodine deficiency. However, it can also be caused by an overproduction of thyroid hormone, fluid-filled nodules, or a swelling of the thyroid gland.
Hyperthyroidism	4. Heart problems	Hyperthyroidism may lead to a faster heart rate. This is because the thyroid hormone stimulates the cells in the cardiac muscle, making them contract more effectively.
	2. Osteoporosis	Raised levels of thyroxine may cause a faster rate of bone turnover, so that the bones are not being replaced quickly enough to maintain bone density.
	9. Psychological symptoms	Rapid changes in thyroxine levels can cause overactivity and sleeping problems, leading to more extreme changes of mood.
	10. Weight loss	Raised thyroxine levels increase the metabolic rate, leading to weight loss.
	1. Goitre	The thyroid gland may enlarge, which contributes to the hyperthyroidism. This is why this might happen. The thyroid gland is essential for thyroxine production. An autoimmune disorder and the most common cause of hyperthyroidism in the UK.
	13. Eyesight problems	Thyroid eye disease is caused by an autoimmune disorder called Graves' disease and the most common cause of hyperthyroidism in the UK. The immune system attacks the tissue behind the eye, causing the eyes to bulge, gritty and watery eyes.

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Activity 1 - Endocrine system disorder

Match-up


1. Colour-code the disorder cards below using three different colours.
2. Then use the same three colours to match each disorder to the effects below.
3. Once done, match the numbers given for each effect to the reasons given below (one effect can be linked to more than one reason). One has been done for you.

Alternatively you could cut out the cards and match them up.

Disorders:

 Hypothyroidism	Diabetes (Types 1 and 2)	Hyperthyroidism
---	-------------------------------------	------------------------

Effects:

1. Goitre	2. Disturbance to menstrual cycle	3. Tiredness
5. Problems in pregnancy	6. Myxoedema	7. Low mood and depression
 9. Psychological symptoms	10. Weight loss	11. Goitre
13. Eyesight problems	14. Poor circulation, especially in hands and feet, leading to tissue damage and possible amputation	

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Reasons:

<p>In types 1 and 2 diabetes, raised levels of sugar in the bloodstream cause damage to the blood vessel walls, leading to fatty deposits being laid down.</p> <p>This will cause the blood vessels to be narrowed and hardened, meaning less oxygenated blood can reach the tissues.</p>	<p>The thyroid gland may enlarge and therefore produce more thyroxine, which contributes to the hyperthyroidism. There are a number of reasons why this might happen, including lack of iodine in the diet (essential for thyroxine production) and Graves' disease, which is an autoimmune disorder and the most common cause of hyperthyroidism in the UK.</p>	<p>Rapid changes can cause overactivity. More extreme cases can lead to more extreme symptoms of the thyroid.</p>
<p>14.</p> <p>In types 1 and 2 diabetes, high blood sugar levels can damage the individual's blood vessels, leading to raised blood pressure, which can cause damage to the tiny blood vessels in this part of the body.</p>	<p>Thyroxine plays a role in heart rate, keeping the heart muscle strong and maintaining healthy blood cholesterol levels. Hypothyroidism reduces thyroxine levels, slowing the heart rate and eventually weakening the cardiac muscle, possibly leading to heart failure.</p> <p>In types 1 and 2 diabetes, high levels of sugar in the bloodstream can damage the walls of the blood vessels, leading to fatty deposits being laid down.</p>	<p>The most common sign is lack of energy. However, it can also lead to the overproduction of hormones, which can cause cancer.</p>

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<p>For a woman with type 1 or 2 diabetes, the metabolic changes during pregnancy cause the body to need more insulin, which may lead to unstable blood sugars. There may be an increased risk of miscarriage and also complications with having a larger baby, which itself may cause problems during labour as the baby may be too large to pass through the pelvis, making a caesarean section necessary.</p> <p>The body will also need more thyroxine to meet rising metabolic levels, which a healthy thyroid gland would automatically meet.</p>	<p>Raised levels of glucose in the bloodstream, due to type 1 or 2 diabetes, cause damage to the blood vessel walls, leading to higher risk of fatty deposits and plaque being laid down.</p> <p>This will cause the blood vessels to be narrowed and hardened, meaning less oxygenated blood can reach the tissues.</p> <p>In hypothyroidism, reduced thyroxine may cause stiffening of the arterial wall and a consequent rise in blood pressure.</p>	<p>Thyroid eye disease is an autoimmune response. Graves' disease is a common cause of hypothyroidism in the UK. The immune system attacks the eye muscles and the fatty tissue behind the eye, causing a range of symptoms including bulging, gritty and itchy eyes.</p>
<p>Thyroxine helps the thyroid gland to maintain its metabolic rate, which contributes to temperature maintenance, energy levels and brain activity.</p>	<p>Thyroid hormone is essential for metabolism. Too little can lower the metabolic rate, causing the individual to experience fatigue, a drop in body temperature, dry skin and memory problems.</p>	<p>Raised levels of thyroid hormone cause bone cells to be reabsorbed at a faster rate than usual. The body is unable to replace the bone quickly enough to maintain bone density.</p>



Activity 2 – Endocrine system disorders (type 2 diabetes)

Teacher notes

Plenary Activity: Case study (email)	
Aim of the activity	This activity provides an opportunity for students to test their knowledge in a case study context. Because they're working together, students can help each other and learn in an unpressured environment.
Teacher's instructions	<p>Go into groups of between two and four.</p> <p>Hand out the case study page, along with the email fill-in page. The students are pretending to be Maria's GP and are explaining to her:</p> <ol style="list-style-type: none">1. why Maria might have developed type 2 diabetes2. the effects it could have on her health and well-being <p>Students should be given two minutes to read the case study and then two minutes for writing their email.</p> <p>Once time's up, go through the possible answers with the group. Swap responses and mark each other's while you all discuss it, then go through the possible answers and ask students to check their own work.</p>

Answers

Why Maria might have developed type 2 diabetes:

- Going by the photo, Maria is obviously overweight and obese. This could have led to her being high in fats and sugars, as well as not taking enough exercise. Exercise opportunities can be difficult, as she works full-time and has a young family, leaving her very little time for herself.
- Maria's body will have developed insulin resistance, meaning that her body now can't 'carry' glucose into the bloodstream into the cells for energy production to take place.
- If either of Maria's parents had Diabetes Type 2, she has a 15% chance of developing it herself.

The effects it could have on her health and well-being:

- Maria will be at risk of hyperglycaemia and hypoglycaemia if she doesn't control her blood sugar levels.

She would also be at risk of:

- increased chances of a stroke
- problems in any future pregnancy for both her and the new baby
- increased chances of heart disease
- eyesight problems
- kidney problems
- nerve damage
- poor wound healing, which could lead to ulcers
- poor circulation, especially in her hands and feet, which could lead to tissue death

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Activity 2 - Endocrine system disorder

Case study (email)

Maria is a 35-year-old teaching assistant who works with children with additional needs. She has recently been diagnosed with type 2 diabetes and is understandably upset, anxious and worried about her health.

She is married to Marcos, 33 years old, a carpenter. They have three children: Lucia, aged 11, Sebastian, aged 7 and Tomas, aged 4.

Maria and Marcos moved to the UK from Spain 12 years ago, when Marcos got a job working for a major UK building company.

Maria is anxious and worried about her diagnosis of type 2 diabetes. Imagine that you are writing an email to her about her disorder, to recap what was said to her at her appointment.

Explain why Maria might have developed type 2 diabetes and what effects it could have on her health and well-being. The first two sentences of the email have been written for you.

To:

Maria@unrealemail.com

From:

Subject:

Dear Maria,

After our appointment on Wednesday, I thought I would email you with a summary of what we said about why you may have developed Diabetes Type 2 and what effects it could have on your health and wellbeing.

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Continue your email on a piece of A4 if you need more space.

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Activity 3 – Nervous system disorders (Parkinson's disease and dementia)

Teacher notes

Starter Activity: Multiple-choice quiz	
Aim of the activity	To give students an opportunity to test their knowledge of Parkinson's disease and dementia on a limited range of multiple-choice questions.
Teacher's instructions	<p>Hand out the 4 worksheet to each individual or get students in groups of 4 to read out the quiz to the class.</p> <p>To extend students' knowledge, get them to provide a justification for their answer, under their answers.</p> <p>Aim to give students one minute to think about and answer each question. The quiz should take approximately 10 minutes to answer the questions.</p> <p>Responses could similarly be read out or handed out for peer or group discussion, providing opportunities for discussion and further questions.</p>

Answers

- C. The body's ability to move muscles in coordination, such as walking**

 - Motor function** refers to the use of muscles for movement.
 - Gross motor:** using large muscle groups for activities such as walking.
 - Fine motor:** using small muscle groups such as those in the hands for activities such as writing.
- A. Dopamine**

 - Dopamine** levels are reduced in individuals with Parkinson's disease, and are not associated with dementia.
 - Serotonin** is associated especially with feelings of well-being and happiness, including sleep, digestion and sexual function.
 - Acetylcholine** levels are reduced in individuals with Alzheimer's disease.
- A. The collection of cells in the brain that produce dopamine**

 - The substantia nigra** in the midbrain is responsible for producing dopamine.
 - The material** that forms the supporting structure of the brain is made up of approximately 60% fat and also contains neurons and blood vessels, and is responsible for protecting the brain.
 - The brainstem** is primarily responsible for controlling vital functions such as breathing and heart rate.
- C. A slow, shuffling walk**

 - The ability to use small, fine tools such as a watchmaker's screwdriver requires fine motor skills.
 - Bradykinesia** refers to the typical slow, shuffling walk associated with Parkinson's disease. An individual may also appear to constantly rub their thumb and fingers together.
- B. Loss of balance, memory problems, problems swallowing**

 - Shortness of breath, sneezing, coughing are all associated with respiratory problems.
 - Parkinson's disease** develops as a result of degenerating neurons that control movement. This explains why movement becomes difficult, such as swallowing and balance.
 - Swollen joints, fatigue and difficulty with movement are associated with arthritis.

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6. A. Dementia with Lewy bodies

- **Lewy bodies** are collections of a specific protein in the brain that disassociated with Parkinson's disease, when an individual develops both at the same time.
- **Vascular dementia** occurs as a result of disruption to the blood supply following a stroke.
- **Frontotemporal dementia** is an uncommon form of dementia that affects the lobes of the brain, causing changes in personality, problems in behaviour and language.

7. B. 850,000

According to the World Health Organisation, there are approximately 850,000 people with Alzheimer's disease in the UK. Of these, 1 in 10 aged 40–65, 1 in 14 is over 65, 1 in 6 is over 80.

8. C. Acetylcholine

- **Dopamine** levels are reduced in individuals with Parkinson's disease.
- **Serotonin** is associated especially with feelings of well-being and happy functions, including sleep, digestion and sexual function.
- **Acetylcholine** levels are reduced in individuals with Alzheimer's disease.

9. C. The build-up of proteins into layers that disrupt the working of neurons

- The plaques in Alzheimer's disease are caused by the build-up of certain proteins between connections between neurons.
- The build-up of hard material inside a blood vessel is also known as plaque, or atherosclerosis in the circulatory system.

10. A. Mild memory loss

- All the signs and symptoms listed can occur in Alzheimer's disease.
- However, mild memory loss is a common symptom in the early stages of the disease.
- The other two are likely to occur in the middle and late stages of the disease.

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Activity 3 - Nervous system disorders

Multiple-choice quiz

Answer the following multiple-choice questions below on Parkinson's and Alzheimer's. If you have time, include a reason for your response.

1. What is 'motor' function?

A.	The speed at which someone completes a task
B.	The speed at which somebody responds to a painful stimulus
C.	The ability to move muscles in coordination, such as walking

Reason:

2. Which neurotransmitter is especially involved in Parkinson's disease?

A.	Dopamine
B.	Serotonin
C.	Acetylcholine

Reason:

3. What is the 'substantia nigra'?

A.	The collection of cells in the brain that produce dopamine
B.	The material that forms the largest part of the brain tissue
C.	A part of the brain involved in controlling heart and breathing rate

Reason:

4. What is 'bradykinesia'?

A.	A slow dance
B.	The ability to hold and use very small tools, such as a watchmaker's
C.	A slow, shuffling walk

Reason:

5. Which three effects are among the most likely to be experienced by an individual with Alzheimer's disease?

A.	Problems with breathing, wheezing, coughing
B.	Problems with balance, memory loss, problems swallowing
C.	Swollen joints, fatigue and difficulty with movement

Reason:

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6. What form of dementia is associated with Parkinson's disease, along with P

A.	Dementia with Lewy bodies
B.	Vascular dementia
C.	Frontotemporal dementia

Reason:

7. How many cases of Alzheimer's disease are there currently estimated in the

A.	7.9 million
B.	850,000
C.	500,000

Reason:

8. Which neurotransmitter is associated with Alzheimer's disease?

A.	Dopamine
B.	Serotonin
C.	Acetylcholine

Reason:

9. What is a 'lag' in Alzheimer's disease?

A.	Award given to the leaders of local memory cafes for their work with Alzheimer's disease and their carers
B.	The build-up of hard material inside blood vessels
C.	The build-up of proteins into layers that disrupt the working of ne

Reason:

10. What is a very common early symptom of Alzheimer's disease?

A.	Mild memory loss
B.	Going for a walk and getting lost
C.	Forgetting to eat and drink

Reason:

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Activity 4 – Musculoskeletal system disorders (rheumatoid arthritis)

Teacher notes

Starter Activity: 'How much do you know?'	
Aim of the activity	To give students an opportunity to check their own knowledge gaps.
Teacher's instructions	<p>Get the students in to pairs and hand out one student resource. They will be asked to study the photograph and then write down as much as they can about the causes of rheumatoid arthritis and its effect on the body.</p> <p>When ready, start the timer. Students have three minutes to complete their notes.</p> <p>When time's up, students need to: either look at other students' responses and add in any additional information OR this could be done as a whole-class activity, with responses being shared and then added to a list that students can write them down.</p>

Answers

Causes and triggers of rheumatoid arthritis	Effects of rheumatoid arthritis on the body
<p>Rheumatoid arthritis is an autoimmune disorder, meaning the body's immune system begins attacking itself. The reason this should happen is unknown, although an infection or a virus has been suggested.</p> <p>However, there are some factors that evidence suggests make the disorder more likely:</p> <ul style="list-style-type: none"> • smoking. • being female – it's 2–3 times more common in women. • if somebody else in family has the disorder. • being overweight. • if an individual eats a lot of red meat • if an individual doesn't eat many foods with vitamin C 	<ul style="list-style-type: none"> • Painful, swollen and inflamed joints • Affected joints are stiff, especially first thing in the morning after a period of inactivity. • Inflammation makes the affected joints red, hot and swollen, which further reduces movement. • The smaller joints are usually affected first, such as the fingers and feet. Often, it will affect the same joints on both sides of the body, but not always. • The synovial membrane around the joints becomes thickened. It eats into the cartilage and bone at the joint. • Weight loss • Flu-like symptoms • Poor appetite • Tiredness • Loss of energy • Anaemia • Rarely – lung problems, such as persistent cough and shortness of breath caused by the lung linings becoming inflamed. • Rarely – inflammation of the lining of the heart. • Rarely – inflammation of the eyes, leading to dryness and pain.

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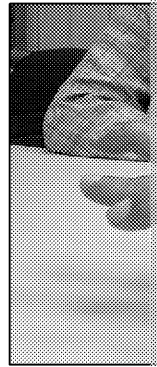


Activity 4 - Musculoskeletal system disorders

'How much do you know?'

Study the photograph (right), which shows deformities of the hand in somebody with rheumatoid arthritis. This particular deformity is known as 'Swan Neck' because of the shape of the fingers, which are curved, as in a swan's neck.

Your teacher will give you the minutes in which to write down as much information as you can think of about the causes of rheumatoid arthritis and its effects on the body.



Write your responses in the table below.

Causes and triggers of rheumatoid arthritis	Effects of rheumatoid arthritis

Now share your information with the rest of your class. Add in any additional information that you haven't included.

Go on to a second page if needed.

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Activity 5 – Respiratory system disorders (chronic obstructive pulmonary disease (COPD) and asthma)

Teacher notes

Plenary Activity: Case study and review	
Aim of the activity	To give students an opportunity to discuss their knowledge of COPD, for whom they will then prepare an information leaflet.
Teacher instructions	<p>Put students into groups of 2–4. Hand out one case study per group. Explain that they are pretending to be Charlie's practice nurse and prepare a resource for him that he can take away and read at home. This should take 10 minutes to complete.</p> <p>A short extension activity on triggers, signs and symptoms of asthma. When finished, go through the activity, discussing what points to remember. This activity could be completed in class (a further five minutes).</p>

Answers

What is chronic obstructive pulmonary disease (COPD)?

COPD is ...

- An umbrella term for a group of lung conditions, causing inflammation and narrowing of the airways.
- This leads to a lot of mucus being produced, which causes constant coughing.
- Over time, the constant inflammation leads to the alveoli losing their tone and the lung doesn't have as much surface area as it once did, which in turn reduces the amount of oxygen that can be absorbed into the bloodstream.
- The lungs lose their elasticity and tone, which means the air passages tend to collapse, making it harder to breathe in and out, and further reducing the amount of oxygen that can be absorbed into the bloodstream as well as making it harder for the body to get rid of excess carbon dioxide.

Why have you developed COPD?

- Charlie has developed COPD mainly because he's smoked cigarettes most of his life.
- He's also a baker and breathing in the very fine particles in the air from the flour has been a contributory factor.

You feel as if you're always out of breath because...

- The tissues inside the lungs, which are the bronchioles and the alveoli, have become inflamed and collapsed. This means air cannot circulate freely through the lungs and there's less space for oxygen to be absorbed.
- The alveoli have collapsed, so there's less surface area inside the lungs for gas exchange, meaning that there's less space for oxygen to be absorbed into the bloodstream and less carbon dioxide is released from the bloodstream into the air.

Answers for extension activity on asthma

Possible triggers	<ul style="list-style-type: none"> • pollution • infections, such as colds and flu • smoke • damp and mouldy housing 	<ul style="list-style-type: none"> • allergies, such as pollen • exercise • cold
Signs and symptoms can include	<ul style="list-style-type: none"> • breathlessness • coughing • dizziness • feeling as if there's a tight band around the chest • cyanosis (blue tinge to extremities, such as lips and finger nails) • children may complain of tummy ache or their chest aching • loss of consciousness 	<ul style="list-style-type: none"> • wheezing • tiredness • difficulty sleeping

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Activity 5 - Respiratory system disorders

Case study and review

Charlie is 65 years old. He's been a baker all his working life and owns his own business. He has always worked in the factory, supervising his staff while they make cakes, pastries and bread. Since he was 14, he has also smoked cigarettes.

After many months of repeated chest infections, chronic cough and constant breathlessness, Charlie's GP and hospital consultant have diagnosed chronic obstructive pulmonary disease (COPD). As you can see in the photograph, he has to go everywhere with an oxygen cylinder and always wears an oxygen tube that sits below his nostrils. This means that he has enough oxygen to enable him to be independent.

You teacher will put you into groups. Read the case study (above).

Imagine you are Charlie's practice nurse at his local GP surgery. He has come for a check-up to understand what COPD is, why he has developed it or why he's constantly out of breath. He is worried about his business and his family, as he guesses that his life expectancy is short.

You need to prepare some straightforward information for Charlie about COPD that he can take home as well as showing it to his wife and family.

Use the template provided and complete it. Go on to another page if needed.

What is chronic obstructive pulmonary disease (COPD)?
COPD is ...

Why have you developed COPD?

You feel as if you're always out of breath because...

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Activity 5 - Respiratory system disorders

Extension activity on asthma

Complete the table below about the triggers, signs and symptoms of asthma. One for each heading has been started for you.

Asthma	
Possible triggers 	<ul style="list-style-type: none">• pollution
Signs and symptoms can include 	<ul style="list-style-type: none">• breathlessness

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Activity 6 – Circulatory system disorders

Teacher notes

Starter Activity: Define and question

Aim of the activity	To remind students of some of the vocabulary associated with the circulatory system and to test their knowledge by asking them to explain the question.
Teacher instructions	Get students to work together individually or in pairs to define the circulatory system disorder and then answer the question. Challenge students to one minute per definition (13 minutes) and for answering the question. Maximum 15 minutes per activity. When students are ready, go through the definitions and possible answers.

Answers

Key terms	Definition
<i>Coronary arteries</i>	arteries that supply fresh, oxygenated blood to the heart
<i>Atherosclerosis</i>	the process when fatty substances are laid down in and on the walls of the arteries
<i>Atheroma</i>	the deposits of fatty substance in the artery walls. The 'plaques'.
<i>Angina</i>	episodes of ischaemia in the heart, meaning the pain from reduced blood flow to the heart. It is often brought on by increased physical activity.
<i>Ischaemia</i>	a lack of blood supply to tissues in part of the body, particularly the heart.
<i>Myocardial infarction</i>	a medical name for a 'heart attack'.
<i>Prognosis</i>	the likely outcome for a disorder
<i>Stem cells</i>	cells that can differentiate into different types of cells
<i>White blood cells</i>	blood cells that fight infection
<i>Bone marrow</i>	the spongy tissue found inside the bones
<i>Acute</i>	Acute disorders come on suddenly and last for a short time.
<i>Chronic</i>	Chronic disorders progress more slowly and last for a long time.
<i>Leukaemia</i>	Leukaemia means 'white blood' and is a form of cancer where there are too many abnormal white blood cells.

Any four from the following:

- smoking
- high blood pressure
- lack of exercise
- high levels of cholesterol in the bloodstream
- diabetes
- being obese or overweight
- a family history of coronary heart disease

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Activity 6 - Circulatory system disorders

Define and question

Provide a definition for each term (given below). One has been done for you.

Then answer the question.

Key terms	Definition
Coronary arteries	
Atherosclerosis	the process when fatty substances are laid down
Atheroma	
Angina	
Ischaemia	
Myocardial infarction	
Prognosis	
Stem cells	
White blood cells	
Bone marrow	
Acute	
Chronic	
Leukaemia	

Now answer the following:

Identify four factors that may lead to coronary heart disease (CHD).
1.
2.
3.
4.

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Activity 7 – Cancer (bowel and prostate)

Teacher's notes

Starter Activity: Black and green mind map	
Aim of the activity	To enable students to feel secure in their knowledge of cancer and prostate cancer.
Teacher's instructions	<p>Get students into groups.</p> <p>Hand out an information mind map, one to each group. Hand out black and green pens, one for each group.</p> <p>Go through the mind map with the whole class. Then tell students to turn the mind map face down. Using the black pen, students must reproduce the mind map in the time that you choose to give them, such as five minutes. The whole activity should take a maximum of 15 minutes.</p> <p>The first words of each text box have been left, to give a clue about the time suitable for a starter.</p> <p>Students turn the information mind map over and compare with the original. They should add further information in their own version.</p> <p>If needed, repeat the exercise, using a second blank mind map and green additions second time around.</p> <p>An A3 version of the mind map has been provided in Appendix 1.</p>

Additional resources:

You will need:

- black pens
- green pens

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Answers (example mind map):

Will only cause a problem if grows too large and presses on other organs

Benign – means the tumour cancer

Primary tumour – where a cancer starts

Malignant tumour – means it grows faster and can spread to surrounding organs

Can spread through circulation or lymphatic systems

If the tissue becomes

Prostate and bowel cancer

54% of bowel cancer are preventable

Cancer occurs when abnormal cells divide in an uncontrolled way

One person in two will develop cancer during their lifetime

A man will know there's something wrong because he may find he's constantly having to pass urine

Over half of new cases of prostate cancer are in men aged 70 or over

He may feel as if his bladder is never completely empty

He may feel he has to strain to empty bladder

More common in men of black Caribbean and black African origin

It's less common in white men

Prostate cancer is the most common form of cancer among men

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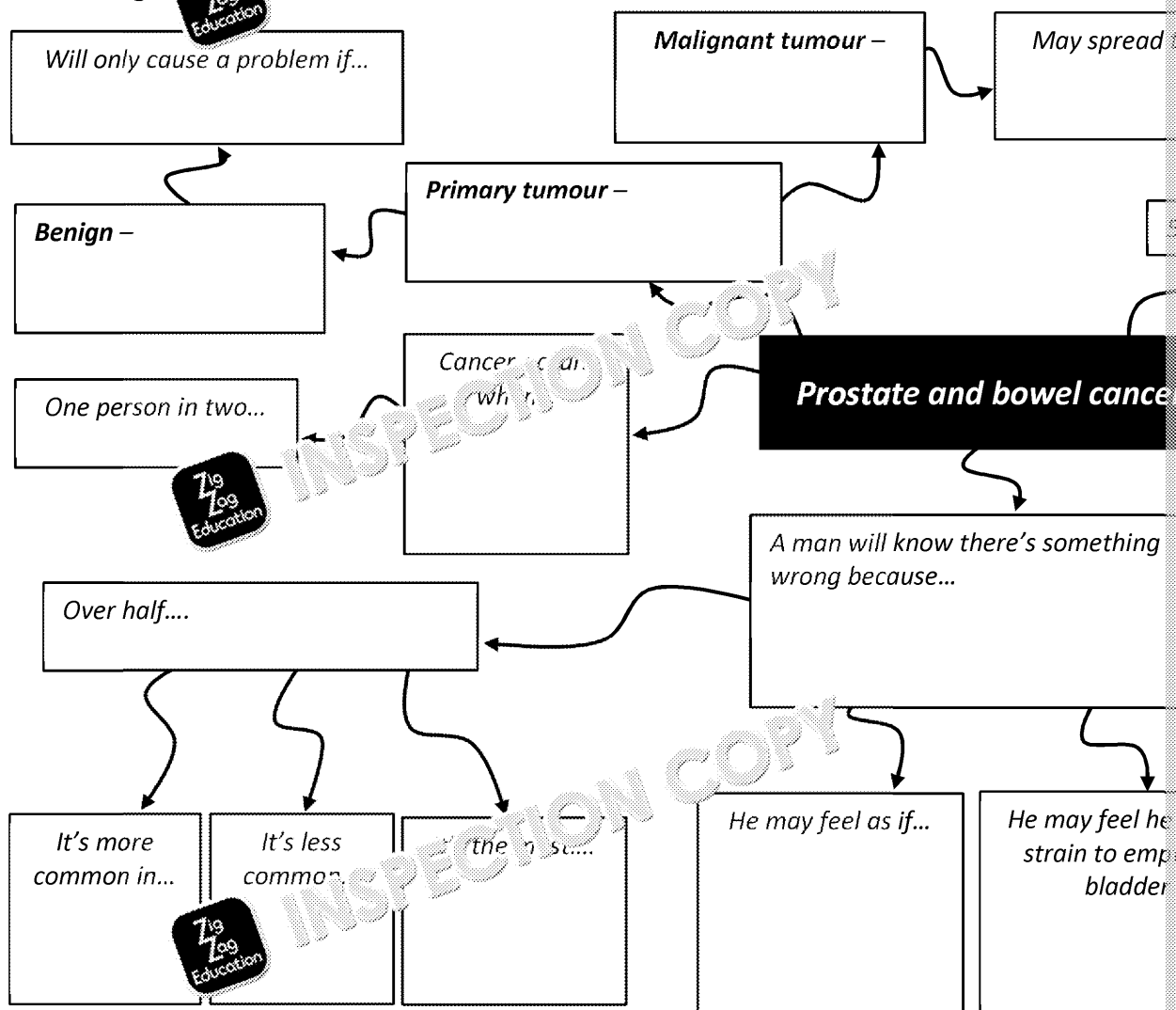
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Activity 7 - Cancer

Black and green mind map

Read through the information on the mind map (provided out by your teacher). Then turn it over and, using your own knowledge, create a mind map. When your time is up, turn over the original mind map and compare your information against what's on it. If time allows and you need to, repeat the activity with a second blank mind map. This time, you should be much less guided.



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Activity 8 – Impact of disorders on physical, social and emotional health

Teacher notes

Plenary Activity: 'Have a chat' case study	
Aim of the activity	To give students an opportunity to work in pairs or small groups to share their knowledge about the impact of rheumatoid arthritis on different aspects of health and well-being.
Teacher's instructions	<p>Get students into pairs (or small groups).</p> <p>Hand out Dorothy's case study to each pair or group, along with a worksheet to write down a minimum of one possible effect of the rheumatoid arthritis on health and well-being (<i>physical, intellectual, emotional and social</i>).</p> <p>Give students 10 minutes to discuss and write down one effect for each category.</p> <p>Ask each pair or group to explain their ideas about the impact of the arthritis to the rest of the group. Alternatively, you could put pairs or groups together so that they can discuss their ideas in fours or larger groups.</p> <p>If you wish, use this time to invite further discussion about the impact of the arthritis on Dorothy and how she may be supported.</p>

Answers

Below are tables filled in with possible answers. How Dorothy would react depends on the support she has from friends. The first table focuses on a negative impact, while the second table focuses on a positive impact that would have if she was supported and the positive impact that would have if she was supported.

For convenience, the answers have been divided into physical effects on Dorothy's health, intellectual, emotional and social effects.

Physical health and ability to complete activities

Physical health and ability to complete activities	How the rheumatoid arthritis is likely to affect Dorothy
Personal hygiene, such as bathing, hair washing and drying	<p>Everyday activities are all likely to be difficult with stiff, painful joints. For example:</p> <ul style="list-style-type: none"> opening the top of a bottle of shampoo manipulating a hair brush and hair dryer at the same time getting in and out of a bath or shower – she's more likely to slip getting on and off the toilet she may have stiffness in her neck and has been immobile for some time getting up in the morning, and this will be worse during the day
Putting on make-up	<ul style="list-style-type: none"> The fine movements needed to apply make-up are likely to be difficult.
Getting dressed	<ul style="list-style-type: none"> Fastenings, such as buttons and zips, are likely to be difficult to use. Generalised stiffness and pain are likely to make bending over to put on underwear, socks, etc. difficult and are likely to disturb her balance. She may be at risk of falls.
Preparing food for meals and cooking	<ul style="list-style-type: none"> Using basic kitchen equipment, such as knives, can be difficult. Difficult to lift saucepans and kettle, etc. Painful, stiff knees may make it hard for her to bend over to get ingredients.

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Going shopping and voluntary work	<ul style="list-style-type: none"> Pushing a shopping trolley and the trolley movements, using large muscle groups. Pain makes these harder and take much longer. Handling coins, picking up items for the shop.
Transport	<ul style="list-style-type: none"> Driving: stiff, swollen and painful joints may make it difficult to use the handbrake, changing gear and using the pedals. Public transport: getting on and off buses and trains, walking down stairs at the stations or over ground, and reduced mobility with her knees.
Housework	<ul style="list-style-type: none"> Operating equipment such as a vacuum cleaner, using stiff, swollen and painful joints.
Frailty	<ul style="list-style-type: none"> It's worth remembering that rheumatoid arthritis can also experience flu-like symptoms, poor appetite and loss of energy.

Intellectual, emotional and social health

Intellectual, emotional and social health	How the rheumatoid arthritis affects Dorothy
Self-esteem (emotional)	<ul style="list-style-type: none"> Reduced ability to carry out her usual activities may lead Dorothy to experience a loss of self-esteem. A low self-esteem means Dorothy is at risk of developing depression.
Self-image (emotional)	<ul style="list-style-type: none"> Judging by the photo, Dorothy likes to do well. If she's unable to do this, she may well experience a poorer self-image. Comparing her with the image of herself she was before, a low self-image means Dorothy is at risk of developing depression.
Self-confidence (emotional)	<ul style="list-style-type: none"> She may have a fear of falling and injuring herself, as her joints are painful, stiff and swollen, and so won't do things that require balance. Low self-confidence means Dorothy is at risk of developing anxiety and depression.
Anxiety (emotional)	<ul style="list-style-type: none"> If Dorothy's afraid of injuring herself, feeling that she's holding people up, and finds she's unable to do her work, she's at risk of developing anxiety.
Depression (emotional)	<ul style="list-style-type: none"> Reduced self-esteem, self-confidence and sleep due to pain, fatigue, increasing sensitivity to pain, arthritis may cause Dorothy to develop depression.
Relationships (social)	<ul style="list-style-type: none"> Family: distant family and being widowed may make it much harder to get out and about. Working: she may find it increasingly hard to do her work as she's used to. This may make her feel unhappy and lonely. Loneliness and isolation: Dorothy may want to form and maintain relationships, but it may make it much harder to get out and about, leading to potential loneliness and isolation. Social: pain, reduced mobility and fatigue may make it difficult for Dorothy to spend time with friends and other people.
Memory loss (intellectual)	<ul style="list-style-type: none"> The impact of anxiety has been linked with an increase in cortisol released. Depression also can impact on memory.

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Activity 8 - Impact on physical, mental, social and emotional

'Have a chat' case study

Dorothy is 73 years old. She is a retired primary school teacher and now volunteers at her local hospital, where she helps to take a trolley with medicines, drinks and snacks around the wards. Dorothy enjoys the work, as she likes to be busy and would otherwise have little social contact. Her husband died five years ago and her children live in Australia.

She has had rheumatoid arthritis for several years but has noticed recently that her flare-ups are getting worse and are occurring more frequently. Her hands and knees are especially badly affected.

Read the case study about Dorothy. Complete the table below with one idea of how each of the following could be affecting Dorothy's physical, intellectual, emotional and social well-being.

For this task, think about all the different activities that Dorothy might do during the day. How could her arthritis affect them? For example, activities such as getting dressed, preparing meals and doing housework.

How could her self-esteem, self-confidence and self-image be affected?

Health and well-being	Activity	How the rheumatoid arthritis could affect it
Physical		
Intellectual		
Emotional		
Social		

When your group has finished, you will be asked to explain your ideas to the rest of your group. Go on to another sheet of paper.

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Activity 9 – Inherited traits

Teacher notes

Starter Activity: Match-up	
Aim of the activity	To give students an opportunity to check their knowledge by matching questions with answers.
Teacher's instructions	Put students into groups of 3–4, and give each group the worksheet. Students must match up the questions with the correct answer from the answers page. Alternatively, you could cut out answer cards and complete the match-up this way. Students should be given a maximum of 15 minutes for this activity.

Answers

1. What is meant by an inherited trait?

An inherited trait is one that is passed on genetically.

Examples of inherited traits include height, eye colour, hair and skin colour.

Examples of inherited disorders include Huntington's disease, cystic fibrosis and sickle cell disease.

2. What is meant by the term 'sickle cell disease'?

Sickle cell disease is a group of inherited diseases, the most serious of which is sickle cell anaemia. It is caused by a change in the shape of red blood cells, changing their shape and giving them a characteristic sickle shape. Unlike normal red blood cells and can also become stuck in the blood vessels.

3. What is meant by a 'sickle cell crisis'?

People with the disorder are at risk of sickle cell crises, which are severely painful episodes where the blood vessels in different parts of the body become blocked and these can last for days. Some individuals are likely to have one sickle cell crisis per year. They are more likely to have complications, with shortness of breath, tiredness, dizziness and fainting.

4. Who is most likely to have sickle cell disease?

Sickle cell disease is found mainly in people of African and Caribbean origin. It is also found in people of Asian, the Mediterranean and the Middle East and occasionally in people of White origin.

5. What are the two forms that sickle cell disease can take?

Sickle cell inheritance can take two forms. People can inherit sickle cell disease and have the disorder in childhood and have it throughout their life. Others will inherit the sickle cell trait, which means they are a carrier of the disease, while they may not develop the disease, they are at risk of passing it on to their children.

6. If a couple both carry the sickle cell trait, what are the chances of passing on the disease to their children?

25% chance (1 in 4) that each child they have will not inherit any faulty genes and will not have sickle cell disease and won't pass it on to their own children.

50% chance (1 in 2) that each child they have will inherit one faulty gene from one parent and will be a carrier of sickle cell trait.

25% chance (1 in 4) that each child they have will inherit faulty genes from both parents and will be born with sickle cell disease.

7. What are the inheritance traits associated with type 1 diabetes?

If a man has type 1 diabetes, there's an 8% chance of his child also developing type 1 diabetes. If one identical twin has type 1 diabetes, there's a 40% chance of the other twin also developing type 1 diabetes.

It can also be linked with other autoimmune disorders, such as rheumatoid arthritis and celiac disease.

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8. **What are some of the inheritance traits associated with type 2 diabetes?**
If either parent has type 2 diabetes, their child (as an adult) has a 15% chance of developing the disease. If one identical twin has type 2 diabetes, there's a 90% chance the other twin will also have it. People of South Asian or Afro-Caribbean origin are more at risk.
9. **What are some of the inheritance traits associated with hypothyroidism?**
Hashimoto's disease, the most common cause of hypothyroidism, runs in families. It is more common in people with Type 1 diabetes.
10. **What are some of the inheritance traits associated with Parkinson's disease?**
The disorder is known to run in families, although the reason why people are affected is not clear. There are genetic mutations which make Parkinson's disease more likely but not certain.
11. **What are some of the inheritance traits associated with Alzheimer's disease?**
People are more likely to develop Alzheimer's if they have a parent or sibling with the disease. If more than one close relative with Alzheimer's disease, they are at a greater risk.
12. **What are the inheritance traits associated with rheumatoid arthritis?**
There appears to be a genetic link in rheumatoid arthritis, which can cause inflammation in the joints. Although the links are not clear at the present time.
13. **What are the inheritance traits associated with osteoporosis?**
Osteoporosis does run in families, probably because bone growth and development are influenced by genetics.
14. **What are the inheritance traits associated with asthma?**
If one or both parents have asthma, their child is more likely to develop the condition.
15. **What are some of the inheritance traits associated with coronary heart disease?**
An individual is more likely to develop CHD if their father or brother were diagnosed with the disease before they were 55 years old. An individual is more likely to develop CHD if their mother or sister were diagnosed with the disease before they were 65 years old.
16. **What are some of the inheritance traits associated with leukaemia?**
Children with Down's syndrome are genetically more likely to develop leukaemia.
17. **What are some of the inheritance traits associated with bowel cancer?**
An individual is more likely to develop bowel cancer if there have been several family members who have developed the disease, especially if the family members were young when it was diagnosed.
18. **What are some of the inheritance traits associated with prostate cancer?**
An individual is more likely to develop prostate cancer if there have been several family members who have developed the disease, especially if the family members were young when it was diagnosed.

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Activity 9 - Inherited traits

Match up

The following questions have been mixed up from their answers (on the next page) writing the number of the question next to each answer.

1. What is meant by an inherited trait?
2. What is meant by the term 'sickle cell disease'?
3. What is meant by a 'genetic crisis'?
4. Who is most likely to have sickle cell disease?
5. What are the two forms that sickle cell disease can take?
6. If a couple both carry the sickle cell trait, what are the chances of passing the trait to their child?
7. What are some of the inheritance traits associated with type 1 diabetes?
8. What are some of the inheritance traits associated with type 2 diabetes?
9. What are some of the inheritance traits associated with hypothyroidism?
10. What are some of the inheritance traits associated with Parkinson's disease?
11. What are some of the inheritance traits associated with Alzheimer's disease?
12. What are the inheritance traits associated with rheumatoid arthritis?
13. What are the inheritance traits associated with osteoporosis?
14. What are the inheritance traits associated with asthma?
15. What are some of the inheritance traits associated with coronary heart disease?
16. What is one of the inheritance traits associated with leukaemia?
17. What are some of the inheritance traits associated with bowel cancer?
18. What are some of the inheritance traits associated with prostate cancer?

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Q No.	Answer
	<p>An individual is more likely to develop CHD if their father or brother were diagnosed when they were below 55 years old.</p> <p>An individual is more likely to develop CHD if their mother or sister were diagnosed when they below 65 years old.</p>
	<p>People are more likely to develop Alzheimer's if they have a parent or sibling who have more than one close relative with Alzheimer's disease, they are at a greater risk.</p>
	<p>Children with Down's syndrome are genetically more likely to develop leukaemia.</p>
	<p>Osteoporosis does run in families, probably because bone density with and development of bone mass is partly inherited.</p>
	<p>The disorder is known to run in families, although the reason why people are susceptible is not clear.</p> <p>There do appear to be gene mutations which make Parkinson's disease more likely.</p>
	<p>An individual is more likely to develop bowel cancer if there have been several people in the family who have developed the disease, especially if the family members were young when they developed the disease and/or the family members were closely related.</p>
	<p>Hashimoto's disease, the most common cause of hypothyroidism, runs in families.</p> <p>Type 1 diabetes is more likely to occur in people with type 1 diabetes.</p>
	<p>If one or both parents have asthma, their child is more likely to develop the disorder.</p>
	<p>There appears to be a genetic link in rheumatoid arthritis, which can cause individual risk, although the links are not clear at the present time.</p>
	<p>If either parent has type 2 diabetes, their child (as an adult) has a 15% chance of developing the disorder.</p> <p>If one identical twin has type 2 diabetes, there's a 90% chance the other twin will also develop the disorder.</p> <p>People of South Asian or Afro-Caribbean origin are more at risk.</p>
	<p>An individual is more likely to develop prostate cancer if there have been several people in the family who have developed the disease, especially if the family members were young when they developed the disease and/or the men were closely related.</p>
	<p>People with the disorder are at risk of sickle cell crises, which are severely painful when blood vessels in different parts of the body become blocked and these can lead to serious complications.</p> <p>On average, individuals are likely to have one sickle cell crisis per year. They are at risk of developing a serious infection and also to be anaemic, which causes shortness of breath, tiredness, dizziness and weight loss.</p>
	<p>If a man has type 1 diabetes, there's an 8% chance of his child also developing the disorder.</p> <p>If one identical twin has type 1 diabetes, there's a 40% chance of the other twin also developing the disorder.</p> <p>It can also occur along with other autoimmune disorders, such as rheumatoid arthritis.</p>
	<p>25% chance (1 in 4) that each child they have will not inherit any faulty genes. They will not have sickle cell disease and won't pass it on to their own children.</p> <p>50% chance (1 in 2) that each child they have will inherit one faulty gene from one parent. The child will be a carrier of sickle cell trait.</p> <p>25% chance (1 in 4) that each child they have will inherit faulty genes from both parents. The child will be born with sickle cell disease.</p>
	<p>Sickle cell disease is found mainly in people of African and Caribbean origin. It's also found in people from Asia, the Mediterranean and the Middle East and occasionally in people of European origin.</p>
	<p>Sickle cell disease is a group of inherited diseases, the most serious of which is sickle cell anaemia. It affects the red blood cells, changing their shape and giving them a characteristic sickle shape. Sick cells don't live as long as normal red blood cells and can also become stuck in the blood vessels.</p>
	<p>Sickle cell inheritance can take two forms. People can inherit sickle cell disease, which means they will develop the disorder in childhood and have it throughout their life. Others will inherit sickle cell trait, meaning that while they may not develop the disease, they are at risk of passing it on to their own children.</p>
	<p>An inherited trait is one that is passed on genetically.</p> <p>Examples of inherited traits include height, eye colour, hair and skin colour.</p> <p>Examples of inherited disorders include Huntington's disease, cystic fibrosis and phenylketonuria.</p>

Activity 10 – Lifestyle choices

Teacher notes

Starter Activity: 'Speed talking'	
Aim of the activity	To give students an opportunity to check and share their knowledge, making them feel more comfortable about taking risks with their health.
Teacher's instructions	<p>The teacher should prepare the topics and answers shown below, the easiest to photocopy onto card and laminate, so that they may be used in groups.</p> <p>Put the students into pairs. Put each question and answer on each table. Student A should pick up the question card and Student B should answer.</p> <p>At the word 'Go', Student A has three minutes to answer their question as much information as possible. At the word 'Stop' Student B will be able to check what answers they have correct and which ones, if any, have been incorrect. They should rotate to the next card and swap roles.</p> <p>The whole activity should take no longer than 15 minutes. Note the time taken to answer every card.</p>

Additional resources: a stopwatch

Questions and answers

Questions	Answers
<p>What are the risks from smoking cigarettes?</p>	<p>Risks from smoking are...</p> <p>Examples of: head, neck, lung, leukaemia, stomach, kidney, cervix</p> <p>Chronic disorders:</p> <p>stroke; blindness; gum infection; aortic rupture; heart disease of the arteries; chronic lung disease and asthma; reduced fertility; impotence; increased miscarriage; premature birth; stillbirth; death; chronic obstructive pulmonary disease (COPD); osteoporosis leading to injuries such as hip fracture</p>
<p>What are the risks of using or overusing drugs, including prescription drugs?</p>	<p>Using or overusing drugs, including prescription drugs,</p> <p>lung disease and cancer; respiratory disorders such as asthma; infertility; high blood pressure; ruptured blood vessels; coronary heart disease (especially if tobacco is mixed with use); severe dehydration and overheating (especially from alcohol); paranoia and schizophrenia</p>
<p>What is meant by drug misuse? What drugs are commonly misused?</p>	<p>Drug misuse means taking illegal substances, such as drugs, in a way not recommended by the GP or manufacturer.</p> <p>Drugs that are commonly misused include:</p> <p>tobacco; alcohol; illegal drugs; prescribed medicines such as tablets, cold remedies; khat (a kind of leaf that's chewed); aerosols, gases and solvents</p>

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<p>What are the effects of using Ecstasy?</p>	<p>Effects of using Ecstasy include:</p> <p>clouded thinking; hyperthermia (dangerously high body temperature); behaviour, jaw-clenching; teeth-grinding; accelerated heart rate; blood pressure; sweating and dehydration; nausea; vomiting; hallucinations; loss of inhibitions; increased urge for sex</p>
<p>Give at least four examples of websites or other sources of support on giving up smoking and drug</p>	<p>Smoking:</p> <ul style="list-style-type: none"> • NHS Stop Smoking Services • Nicorette • British Lung Foundation • Macmillan • Smokefree.gov • professionals at local GP surgery or health centre <p>Drugs:</p> <ul style="list-style-type: none"> • Frank • NHS • Supportline • Oasis health and well-being • Recovery.org.uk • Mind • professionals at local GP surgery or health centre
<p>Give at least four techniques to help somebody give up smoking.</p>	<p>Any four from:</p> <ul style="list-style-type: none"> • education and information • hypnotherapy • acupuncture • smokefree community on Facebook • telephone helplines • online chat facility • apps • emailed programmes • text programmes • face-to-face support with an advisor, through local Stop Smoking services • nicotine replacement therapy (NRT) • e-cigarettes
<p>Give at least four techniques to help somebody give up drugs.</p>	<p>Any four from:</p> <ul style="list-style-type: none"> • GP • Frank online • local drug treatment services, that may be identified through local services • talking therapies, such as cognitive behavioural therapies (CBT) • medicines, such as methadone • detoxification • self-help groups, such as Narcotics Anonymous • residential rehabilitation • appointed drugs/key worker to work with an individual

Activity 11 – Diet

Teacher notes

Starter Activity: Dietary bingo	
Aim of the activity	To give students a fun opportunity to test out their knowledge
Teacher's instructions	<p>Photocopy the bingo cards, one for each student, pair or group as provided. Depending on the number of students, divide them as follows:</p> <p>1. The activity should take a maximum of 15 minutes.</p> <p>Read out a question (there are 36) and wait for a correct response. If they have the answer on their card, they should cross it out, regardless of whether they personally gave a correct spoken response.</p> <p>You can read the questions in any order you choose, which is why the cards are shuffled.</p> <p>Continue in this way. The first student with five correct answers in a row is the winner. They should shout out 'Bingo' if they have five in a row. Rows may be diagonal, horizontal or vertical.</p> <p>It's up to you whether or not you hand out a prize!</p>

Questions and answers

Questions	Answers
What word is used to describe a long period of inactivity or sitting down?	Sedentary
What leads to an individual becoming overweight or obese?	Taking in more calories than they burn
How is the excess energy stored in the body?	As adipose tissue beneath the skin and around internal organs, in the bone marrow
How many calories does an average man need every day?	2,500 calories per day
How many calories does an average woman need every day?	2,000 calories per day
What BMI reading is a healthy weight?	18.5–24.9
What BMI reading is an obese weight?	30–39.9
What two factors can influence BMI and give an inaccurate reading?	Ethnicity and if the individual is pregnant
A possible outcome of obesity	Stroke Type 2 diabetes Bowel cancer High blood pressure Coronary heart disease Gout/arthritis
A macronutrient	Protein Fats Carbohydrates
A group of micronutrients	Vitamins Minerals
Sources of protein	Meat, fish, eggs and beans
Sources of energy, vitamins, minerals and fibre	Fruit and vegetables
Sources of energy	Bread, rice, potatoes and pasta
Sources of minerals, fats and vitamins	Dairy

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Questions	Answers
Sources of energy	Fatty and sugary foods
What waist measurement in a man predisposes him to health problems from obesity?	37 inches (94 cm) or more
What waist measurement in a woman predisposes her to health problems from obesity?	31.5 inches (80 cm) or more
What is a macronutrient?	A nutrient needed in relatively large amounts: protein, fats and carbohydrates
What is a micronutrient?	A nutrient needed in very small amounts: vitamins and minerals
Dark leafy greens, egg yolks and red meat are all sources of what mineral?	Iron
What function does iron have in the body?	It's essential for haemoglobin in the blood so that oxygen can be carried throughout the body
What function does vitamin A have in the body?	It's essential for health of the eyes, the immune system and the immune system
What does a deficiency of calcium cause?	Osteoporosis, muscle cramps and an irregular heart rhythm
What does a deficiency of vitamin D cause?	Osteoporosis and rickets
Milk, yoghurt, cheese and dark leafy greens are all sources of what mineral?	Calcium
What is rickets?	When the bones become soft due to a lack of vitamin D, this happens in childhood, the bones bend under the child's weight, causing a characteristic appearance.
What symptom might an underweight teenage girl or woman notice?	Periods might stop



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Activity 11 - Diet

Dietary bingo – Card 1

1. Your teacher will read out a question.
2. One of you will answer and if you have the correct answer, mark it off on your card. It doesn't matter if you personally didn't come up with the correct answer.
3. As soon as you have five in a row, shout out 'Bingo'. Rows can be vertical, horizontal or diagonal. The first person with a row of five completed is the winner.

 <i>Periods might stop</i>	<i>Iron</i>	<i>Fatty and sugary foods</i>	<i>Coronary disease</i>
<i>Meat, fish, eggs and beans</i>	<i>A nutrient needed in very small amounts, such as vitamins and minerals</i>	<i>Taking in more calories than are used as energy</i>	<i>Ethnicity or individual muscle mass</i>
<i>2,000 calories per day</i>	<i>Osteoporosis, muscle cramps and an abnormal heart rate</i>	<i>Arthritis</i>	<i>Bread, potatoes or pasta</i>
 <i>37 inches (94 cm) or more</i>	<i>30–39.9</i>	<i>It's essential for haemoglobin in the red blood cells, so that oxygen can be carried throughout the body</i>	<i>High blood pressure</i>
<i>Bowel cancer</i>	<i>As adipose tissue beneath the skin, around internal organs, in the bone marrow, muscle and breast tissue</i>	<i>Minerals</i>	<i>Dairy</i>



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Activity 11 - Diet

Dietary bingo – Card 2

1. Your teacher will read out a question.
2. One of you will answer and if you have the correct answer, mark it off on your card. It doesn't matter if you personally didn't come up with the correct answer.
3. As soon as you have five in a row, shout out 'Bingo'. Rows can be vertical, horizontal or diagonal. The first person with a row of five completed is the winner.

When the bones become soft due to a lack of vitamin D, by this happens in childhood, the bones bend outwards under the child's weight, causing a bow-legged appearance	It's essential for health of the eyes, the reproductive system and the immune system	A nutrient needed in very small amounts, such as vitamins and minerals	31.5 inches or more
Bread, rice, potatoes and pasta	Fruit and vegetables	Meat, fish, eggs and beans	Vitamin
Type 2 diabetes	1000 calories per day	18.5–24.9	Stroke
Protein	Osteoporosis and rickets	Osteoporosis, muscle cramps and an abnormal heart rhythm	Minerals
Ethnicity and if the individual is very muscular	It's essential for haemoglobin in the red blood cells, so that oxygen can be carried through the body	Calcium	Arthritis

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Activity 11 - Diet

Dietary bingo – Card 3

1. Your teacher will read out a question.
2. One of you will answer and if you have the correct answer, mark it off on your card. It doesn't matter if you personally didn't come up with the correct answer.
3. As soon as you have five in a row, shout out 'Bingo'. Rows can be vertical, horizontal or diagonal. The first person with a row of five completed is the winner.

 Sedentary	Iron	2,500 calories per day	Coronary disease
Meat, fish, eggs and beans	Ethnicity and if the individual is very muscular	Taking in more calories than are used as energy	Stroke
Type 2 diabetes	Osteoporosis, muscle cramps and an abnormal heart rate	Protein	Bread, potatoes and pasta
 37 inches (94 cm) or more	A nutrient needed in very small amounts, such as vitamins and minerals	It's essential for haemoglobin in the red blood cells, so that oxygen can be carried throughout the body	Periods missing
High blood pressure	As adipose tissue beneath the skin, around internal organs, in the bone marrow, muscle and breast tissue	When the bones become soft due to lack of vitamin D. If this happens in childhood, the bone bend and bow, as under the child's weight, causing a bow-legged appearance	Dairy

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Activity 11 - Diet

Dietary bingo – Card 4

1. Your teacher will read out a question.
2. One of you will answer and if you have the correct answer, mark it off on your card. It doesn't matter if you personally didn't come up with the correct answer.
3. As soon as you have five in a row, shout out 'Bingo'. Rows can be vertical, horizontal or diagonal. The first person with a row of five completed is the winner.

 Sedentary	Stroke	2,500 calories per day	Arthritis
Meat, fish, eggs and beans	Carbohydrates	Taking in more calories than are used as energy	Minerals
A nutrient needed in relatively large quantities, such as protein, fats and carbohydrates 	Osteoporosis, muscle cramps and an abnormal heart rate	Iron	Bread, potatoes and pasta
37 inches (94 cm) or more	Coronary heart disease	It's essential for haemoglobin in the red blood cells, so that oxygen can be carried throughout the body	30–35%
31.5 inches (80 cm) or more	As adipose tissue beneath the skin, around internal organs, in the bone marrow, muscle and breast tissue	Ethnicity and if the individual is very muscular	Dairy



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Activity 11 - Diet

Dietary bingo – Card 5

1. Your teacher will read out a question.
2. One of you will answer and if you have the correct answer, mark it off on your card. It doesn't matter if you personally didn't come up with the correct answer.
3. As soon as you have five in a row, shout out 'Bingo'. Rows can be vertical, horizontal or diagonal. The first person with a row of five completed is the winner.

 Periods might stop	It's essential for health of the eyes, the reproductive system and the immune system	Iron	31.5 inches or more
Bread, rice, potatoes and pasta	Carbohydrates	Meat, fish, eggs and beans	High blood pressure
Bowel cancer	2,500 calories per day	30–39.9	Stroke
 Protein	As adipose tissue beneath the skin, around internal organs, in the bone marrow, muscle and breast tissue	Osteoporosis, muscle cramps and an abnormal heart rhythm	Taking in too many calories that are not used as energy
Calcium	It's essential for haemoglobin in the red blood cells, so that oxygen can be carried throughout the body	A nutrient needed in very small amounts, such as vitamins and minerals	Arthritis

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Activity 11 - Diet

Dietary bingo – Card 6

1. Your teacher will read out a question.
2. One of you will answer and if you have the correct answer, mark it off on your card. It doesn't matter if you personally didn't come up with the correct answer.
3. As soon as you have five in a row, shout out 'Bingo'. Rows can be vertical, horizontal or diagonal. The first person with a row of five completed is the winner.

 Iron	Stroke	2,500 calories per day	Osteoporosis, muscle cramps, an abnormal heart rhythm
Minerals	Carbohydrates	Taking in more calories than are used as energy	A nutrient in relative quantities, protein, fat, carbohydrate
Meat, fish, eggs and beans 	As adipose tissue beneath the skin, around internal organs, in muscle and breast tissue	Sedentary	Bread, potatoes and pasta
37 inches (94 cm) or more	Coronary heart disease	It's essential for haemoglobin in the red blood cells, so that oxygen can be carried throughout the body	30–35%
31.5 inches (80 cm) or more	Arthritis	Ethnicity and if the individual is very muscular	Dairy

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Activity 12 – Environment (Housing)

Teacher notes

Plenary Activity: 'Spin the wheel'	
Aim of the activity	To give students an opportunity to test their knowledge with
Teacher's instructions	<p>Put students into groups of four.</p> <p>Photocopy this wheel and one set of answers for each group. The wheel can be easily photocopied on to card. Pin the wheel loosely to the wall with a paper binder and a washer so that the wheel will spin.</p> <p>Alternatively, the students could close their eyes and point to a pencil or finger, or insert a pencil through the centre and spin it so that a question that comes to rest on the surface.</p> <p>Divide group into multiples of four. There are eight questions on the wheel. Students decide who is going to go first and who is going to have the wheel and answer whichever question is at the top beneath the stops. If a question is selected again, students should aim to provide a more detailed answer than the last go or expand on the previous answer.</p> <p>Students should be given a maximum of 15 minutes for this activity.</p>

Questions and answers

Give five aspects of living conditions that can lead or contribute to physiological problems. Any five from the list below or suitable alternatives.

- damp and mould
- type of housing
- air pollution
- poor cooking facilities
- exposed wiring
- overcrowding
- locality
- trip hazards
- damaged furniture

How could damp and mould arise in housing?

There are several causes, including:

- poorly fitting windows
- lack of ventilation
- poorly fitting doors
- leaking pipes

How can a local housing authority assess if a home is overcrowded?

A local housing authority is likely to use indicators such as:

- the number of rooms in a property
- the amount of floor space
- the number of people living there

Explain why living in a high-rise apartment might be difficult for a parent with a young child.

There are a range of possible difficulties, including:

- no easy access to an outdoor space for the child to run around or play outdoors
- lifts may be working, meaning the buggy either has to be left downstairs or carried up
- no back garden for the child to play in safely while parent gets on with chores
- outdoor play becomes very time-consuming, which is harder to do if parent is busy
- getting washing dry more difficult, meaning several trips to launderette to dry clothes
- damp washing inside trying to dry and making apartment damp or use of expensive fans
- may enhance parent's sense of isolation due to the effort and organisation required

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Give some advantages to living in an urban environment.

There may be several advantages to living in an urban environment, depending on personal preference. They could include:

- easy access to shops, schools and GP surgeries
- public transport readily available, such as buses, trains and trams
- plenty of leisure activities, such as cinemas, theatres, sports centres, libraries and museums
- greater employment opportunities
- greater post-16 education opportunities, such as colleges and universities
- public parks and playgrounds easily accessible

Give some advantages to living in a rural environment.

There may be several advantages to living in a rural environment, depending on the personal preference. They could include:

- cleaner air
- close to nature, with opportunities to enjoy wildlife, etc. readily available
- more personal space, which may reduce stress
- less noise and light pollution, which may reduce stress and improve sleep
- good opportunities for free exercise, such as walking and cycling
- may be easier to reduce living costs by growing own vegetables and fruit

Give some disadvantages to living in an urban environment.

These will depend on personal preferences and circumstances but may include:

- greater air pollution, giving rise to respiratory disorders
- greater noise pollution, adding to sense of stress
- greater light pollution, which may impact on sleep
- no easy access to free, open spaces – may have to travel some distance to reach
- many leisure facilities are expensive
- more likely to have high-rise housing, such as tower blocks, which may add to stress
- local services, such as hospitals and GP surgeries, likely to be in high demand
- pressure on space means that schools, playgrounds and fields are likely to be too small for children

Give some disadvantages to living in a rural environment.

These will depend on personal preferences and circumstances but may include:

- may have to travel several miles to reach services, such as shops, hospitals, GP surgeries and secondary schools
- public transport likely to be infrequent and expensive
- more likely to have to rely on a car, which is expensive
- fuel is often more expensive in rural areas
- may not have neighbours, so may feel very isolated
- may have to travel in order to find employment, which increases travel costs
- children likely to have to move away from the area if they choose to go to university
- limited local employment opportunities, especially better paid and highly qualified jobs
- emergency services may take longer to reach people
- housing likely to be more expensive, as rural areas may be considered more desirable

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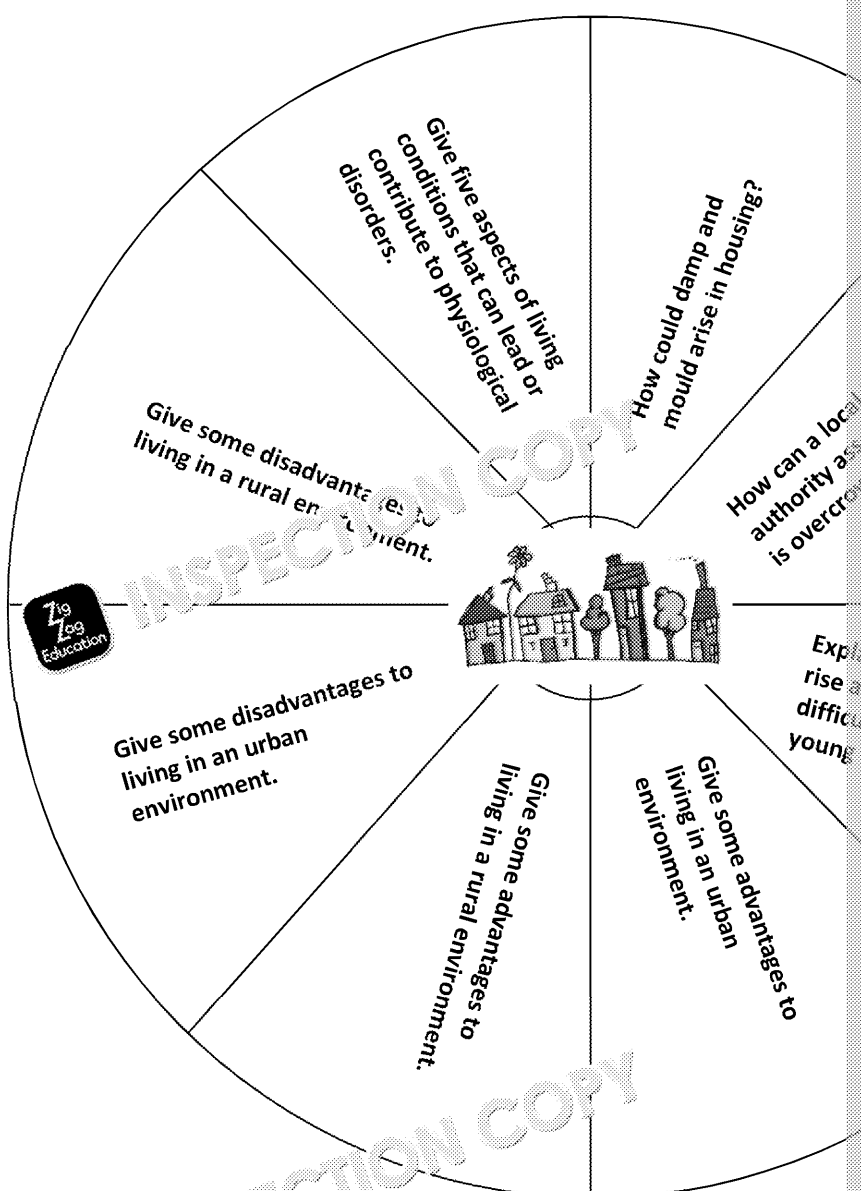
Activity 12 - Environment

'Spin the wheel'

Your teacher will put you into groups. Decide who is going to go first and who is going to spin the wheel. When it stops, answer the question that the arrow is pointing to.

Then repeat the activity with the next student and so on, until you have all had a go and checking the answers.

Wheel



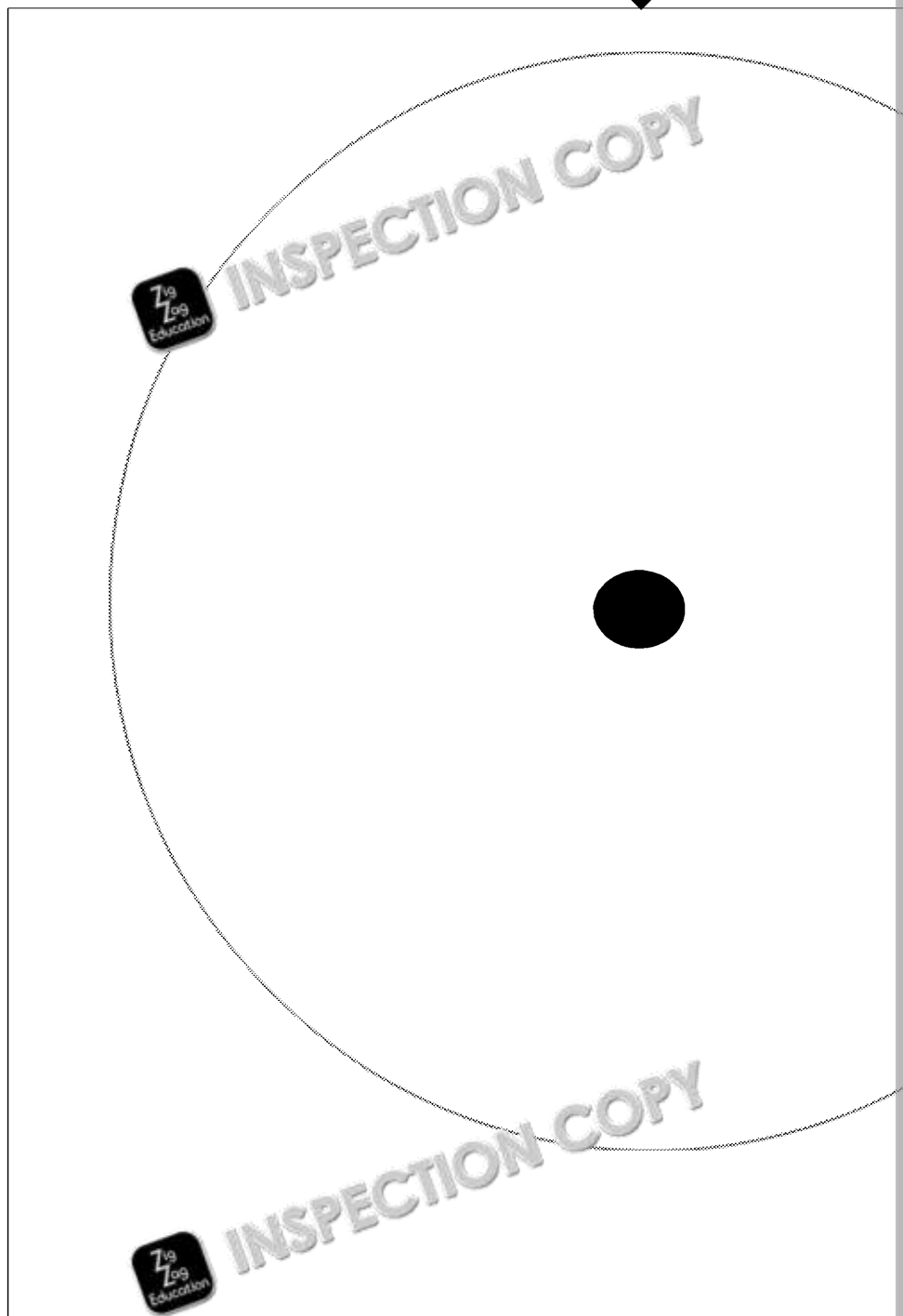
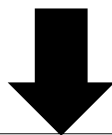
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Activity 12 - Environment

'Spin the wheel'
Wheel background



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Activity 13 – Environment (air pollution)

Teacher notes

Starter Activity: 'Fishbone'	
Aim of the activity	To enable students to gain confidence and skill in analysing a data set and identifying findings in specific categories.
Teacher instructions	<p>Divide students into pairs or small groups of individuals.</p> <p>Give students 10 minutes to read the report, then a further 10 minutes to identify 'cause and effect' or 'recommendation' categories on the report.</p> <p>The table below provides suggestions of causes and effects and recommendations.</p> <p>The teacher can either discuss the report with the whole group or allow students to discuss ideas with pairs or individuals during the activity.</p>

Suggestions for causes, effects and recommendations

Cause and effect	Recommendations
<i>Every year in the UK, outdoor pollution is linked...</i>	To reduce deaths, the government and local authorities should work together to make long-term plans.
<i>The impact of air pollution on public health costs the UK more than £20 billion per year, which is just under 16% of the current annual NHS budget of around £116bn.</i>	Promote alternative transport, such as cycling and electric/hybrid cars.
<i>In the UK, there are a number of substances that contribute to air pollution, including particulate matter and nitrogen dioxide.</i>	Industries causing the air pollution should be monitored for harming health.
<i>The 'cleanest' of engines can produce nitrogen oxides, ozone and particulates.</i>	Local authorities should monitor air pollution levels, ensuring they are reported.
<i>Particulate matter happens when a fuel has been burned and broken down into particles as they degrade in the air.</i>	Local authorities should act to protect pollution levels are high, such as by using traffic control.
<i>The particles themselves are of varying sizes, which decides how far into somebody's lungs they can reach. The smaller the particles the further into the lungs they can penetrate.</i>	Regulators and local governments should ensure that poorer areas are not put at greater risk.
<i>Nitrogen dioxide is a product of road traffic and the burning of fossil fuels.</i>	Protect groups that are at increased risk, such as children, older adults and people with pre-existing conditions.
<i>Like particulate matter, it contributes especially to respiratory disorders such as asthma and bronchitis, and may make COPD worse.</i>	Set levels of pollutants to ensure clean air.
<i>Air pollution may also occur indoors, from sources such as gas cookers, smoking, damp and mould, cleaning products, cigarette smoke and carbon monoxide.</i>	Research the links between indoor air pollution and the key risk factors.
<i>There is evidence that exposure to pollutants throughout life...</i>	Further research is needed to improve understanding of social and economic trends.
<i>Air pollution has been linked to cancer, heart disease, dementia, type 2 diabetes, reduced lung function, problems with brain development and cognitive ability, and asthma.</i>	Improve air pollution monitoring to ensure clean air.
<i>There is also a socio-economic factor, in that poorer people tend to live in lower-quality environments and are more exposed to air pollution.</i>	Research into the effects of air pollution on different groups.

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Activity 13 - Environment

Report on air pollution

What air pollution is, its causes and effects

Air pollution means contamination of the air with different substances, such as gases or solid particles, which will cause harm to health. It carries on for long enough to cause a problem at a high concentration. Every year in the UK, outdoor air pollution is linked to around 40,000 deaths. Around 100,000 pollutants are taken into account every year. The impact of air pollution on public health costs the NHS around £11 billion per year, which is just under 1% of the current annual NHS budget of around £110 billion.

In the UK, there are a number of substances that contribute to air pollution, including nitrogen dioxide. Particulate matter is made up of a wide range of different solids, including dust, smoke, and the 'cleanest' of engines can produce nitrogen oxides, ozone and particulate matter. This happens either when a fuel has been burnt or gases turn into particles as they degenerate. These particles are of varying sizes, which decides how far into somebody's lungs they can penetrate. The smaller the particles the further into the lungs they can penetrate.

Promoting alternative transport, such as walking, cycling, public transport and electric vehicles, can help to reduce levels of particulate matter. However, other measures should also be put in place. Local authorities and industry must work together to make long-term changes and industry and transport pollution need to take responsibility for harming health.

Air pollution levels should be monitored, ensuring that serious incidents are reported and action taken to protect public health where air pollution levels are high, such as by closing schools and hospitals. This also means that levels of pollutants need to be set to ensure clean air. Better air pollution monitoring and it's also important to improve our understanding of the factors that are affecting air quality in the UK. This is because high air pollution levels from industry and vehicles, will rise into the atmosphere and move around the globe.

Nitrogen dioxide is a product of road traffic and the burning of fossil fuels. Like particulate matter, it is especially linked to respiratory disorders such as asthma and bronchitis, and may make these conditions worse. It also occurs indoors, from sources such as gas cookers, damp and mould, cleaning products and carbon monoxide. However, further research is needed on the links between indoor air pollution and health, including the key risk factors.

There is evidence that exposure to pollutants throughout life, from pregnancy to old age, can have long-term influences, although the harm to unborn babies and young children is not as strong as it once was. This is because there isn't much research or that the effects on the baby and child may not be obvious. For example, the damage done by air pollution in childhood may not become obvious until later in life. Further research into the effects of air pollution on health is needed.

Air pollution has been linked to cancer, heart disease, dementia, type 2 diabetes, mental health problems with brain development and cognitive ability and asthma. The government has a duty to protect groups that are at increased risk of health problems, including children, older people and those with chronic health problems.

There is also a socio-economic factor, in that poorer people tend to live in lower-quality housing and are more exposed to air pollution. Regulators and local governments must ensure that everyone is not put at greater risk from air pollution.

Sources:

<https://www.nhs.uk/news/heart-and-lungs/air-pollution-kills-40000-a-year-in-the-uk-says-report/>
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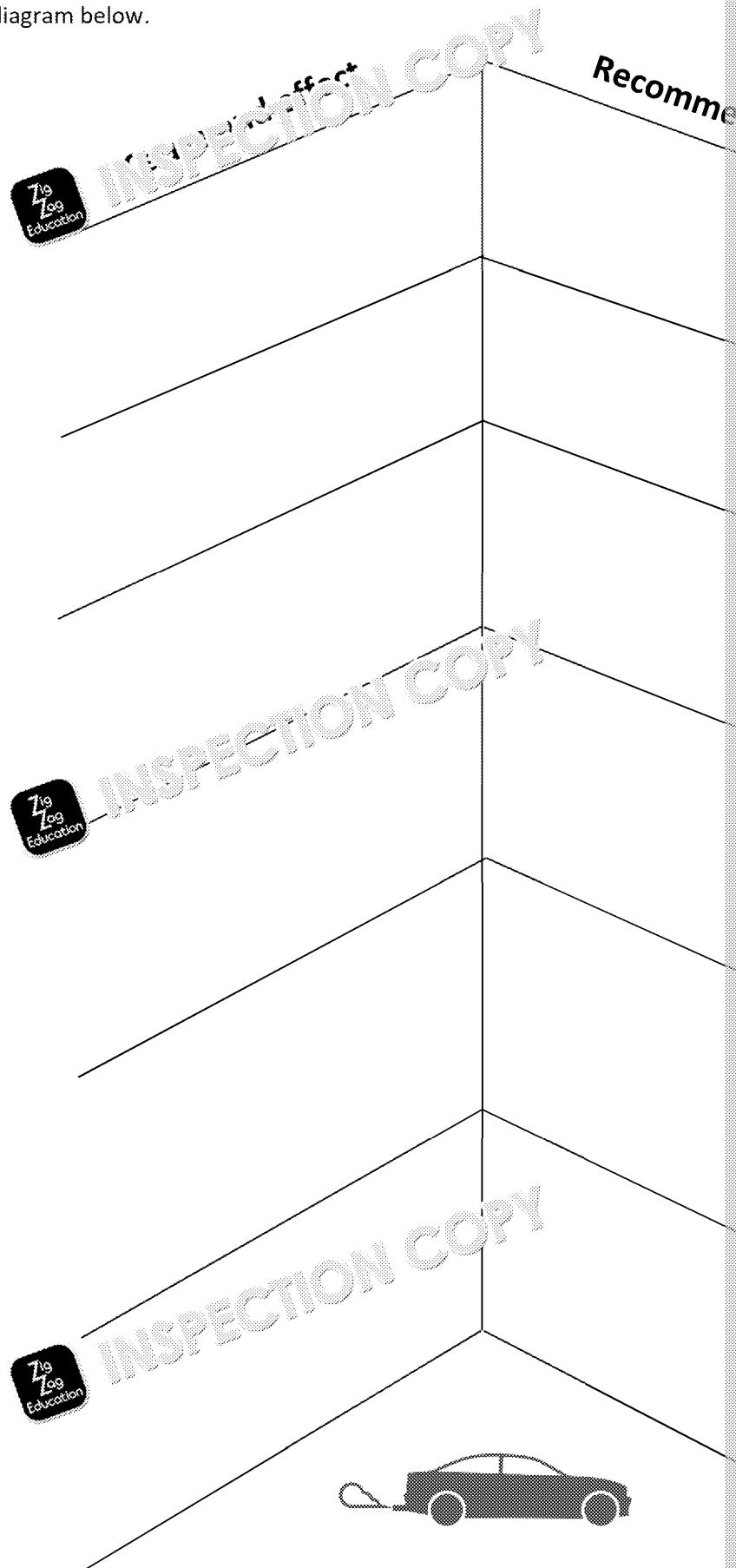
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Activity 13 - Environment

'Fishbone'

Read the report summary about air pollution. Decide whether the information is air pollution or a recommendation on how the problem could be reduced and complete the fishbone diagram below.



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Activity 14 – Signs and symptoms experience the individual

Teacher notes

Plenary Activity: Timed multiple-choice quiz	
Aim of the activity	For students to work in pairs or individually, testing their knowledge of signs and symptoms.
Teacher instructions	<p>Put students into pairs or as individuals.</p> <p>You may either read out each question and the choices or hand out a sheet of questions and choices.</p> <p>Once students have finished, go through the answers. On the table, the correct answers have been highlighted.</p> <p>Aim to give a time limit of 30 seconds for each question.</p> <p>Activity should take approximately 11 minutes.</p>

Answers

1. Signs
2. Symptoms
3. Weeping
4. Where the skin becomes cracked and thickened as a result of contact with the irritant
5. Spots, itchiness and colour
6. By red spots that may be widespread across the body that don't disappear when pressed
7. Asthma
8. Swelling
9. It could be hot, red and painful
10. When pressed with a finger the skin indents and leaves an impression
11. Respiratory and circulatory systems
12. Standing for long periods and being immobile
13. Acute
14. From its position in the body and when it occurs
15. Fibromyalgia and arthritis
16. Neuropathic
17. Use a visual pain scoring chart
18. An altered mental state
19. Not knowing where they are; not knowing their identity; being agitated, restless
20. Infection
21. Delirium is usually fairly short-lived while dementia is longer-term and is likely to be permanent
22. Dehydration and hypoglycaemia

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Activity 14 - Signs and symptoms experienced by

Timed multiple-choice quiz

Answer the following multiple-choice questions, by circling the correct answer.

You have 30 seconds for each question.

- What is the term that means something about a disorder that's noticeable by others?
 - Medical history
 - Symptoms
 - Signs
- What is the term that describes something about a disorder that a person would experience?
 - Symptoms
 - Medical history
 - Signs
- What is the term used to describe where a skin condition, such as a rash, seems to be?
 - Leaking
 - Weeping
 - Scaling
- What is contact dermatitis?
 - Occurrence of a red rash that develops a silver centre
 - A sense of irritation when taking cold calls from a call centre
 - Where the skin becomes cracked and thickened as a result of contact with an irritant
- Give three aspects of a rash's appearance that might give a clue to the cause.
 - Spots, itchiness and colour
 - Smell; if it has a zigzag appearance; if it comes and goes
 - If it appears after eating; if it appears on a school or college day; if it has a specific shape
- How could a meningitis rash be recognised?
 - By red spots that form pustules and then crusts
 - By red spots that may have white spread across the body and that don't disappear when pressed
 - By red spots that weep clear fluid
- What physiological disorder is often associated with eczema?
 - Coronary heart disease
 - Hypothyroidism
 - Diabetes
- What term is used to describe the results of inflammation or the collection of fluid?
 - Weight gain
 - Swelling
 - Cracking
- What would suggest infection or severe inflammation of a joint?
 - It could be hot, red and painful
 - Reduced circulation, causing the skin around the joint to go white
 - Red and black spots on the skin around the joint
- What is pitting oedema?
 - When the skin develops a rough texture like an apple pips just under the surface
 - When the tissues are so full of fluid that they seep yellowish fluid through the skin
 - When pressed with a finger, the skin indents and leaves an impression
- Which two body systems are often linked with pitting oedema?
 - Musculoskeletal and respiratory systems
 - Respiratory and circulatory systems
 - Nervous and circulatory systems

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12. Give the two most common causes of swelling in the lower legs.
 - a. Standing for long periods and being immobile
 - b. Blood clot in a deep vein and the contraceptive pill
 - c. Malnutrition and kidney disease
13. What term is used to describe pain that lasts less than 12 weeks?
 - a. Chronic
 - b. Intermittent
 - c. Acute
14. Give two ways of assessing somebody's pain.
 - a. From its position in the body and when it occurs
 - b. By pinching their arm and stabbing them with a tiny pin
 - c. By asking them to talk about it and filling in a form
15. Name two disorders that are likely to cause chronic pain.
 - a. Asthma and Parkinson's disease
 - b. Diabetes and hyperthyroidism
 - c. Fibromyalgia and arthritis
16. Pain that occurs as a result of a primary lesion or a problem in the nervous system, such as an amputation, is known as what?
 - a. Neuropathic
 - b. Chronic
 - c. Acute
17. How could a care professional assess the pain in an individual with communication difficulties who is an English speaker?
 - a. Use a visual pain scoring chart
 - b. By pressing different parts of the individual's body to see if they react
 - c. By speaking very slowly and in an extra-loud voice
18. What is meant by the term 'disorientation'?
 - a. Getting lost when trying to follow a map
 - b. Losing personal possessions, such as mobile phones and car keys
 - c. A confused mental state
19. Give three symptoms of disorientation.
 - a. Having the map upside down; being aggressive; forgetting the names of people
 - b. Not knowing where they are; not knowing their identity; being agitated
 - c. Hallucinating; wandering around; losing bus or train tickets
20. Give one possible cause of delirium.
 - a. Being late for an appointment
 - b. Infection
 - c. Too much salt in the diet
21. What is the difference between delirium and dementia?
 - a. Delirium is usually fairly short-lived while dementia is longer-term and is irreversible
 - b. Delirium and dementia are both spelt differently
 - c. Delirium occurs in people below the age of 65 and dementia occurs above 65
22. Give two causes of dehydration.
 - a. Dehydration and hypoglycaemia
 - b. Not drinking enough water and drinking too much strong coffee
 - c. Eating too many sugary and fatty foods and eating too much processed food

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Activity 15 – General measurements

Teacher notes

Starter Activity: Match-up	
Aim of the activity	To enable students to check their own knowledge at the beginning of the lesson.
Teacher's instructions	<p>This activity may be done with students as individuals or pairs.</p> <p>Photocopy the page with the statements and answers, one for each student. Cut them out. Students have to draw a line, matching the statement to the correct answer. Give students 10 minutes to complete this activity.</p> <p>Go through the answers.</p>

Questions and answers

Question/Statement	Answer
In blood pressure, the level of resistance in the artery wall when blood is being pumped out of the ventricles into the aorta	Systole
In blood pressure, the level of resistance in the artery wall between heartbeats	Diastole
What is a 'normal' blood pressure reading?	120/80 mmHg
What is the name of the instrument used to take a blood pressure reading?	Sphygmomanometer
The lower chambers of the heart. The right chamber pumps blood to the lungs for reoxygenation and the left pumps freshly oxygenated blood around the body	Ventricles
One of the main arteries supplying the arm	Brachial artery
Low blood pressure of 90/60 mmHg or below	Hypotension
High blood pressure, 140/90 mmHg or higher	Hypertension
Dementia caused by damage to the blood vessels in the brain	Vascular dementia
A cause of dehydration	Fluid loss due to sweating
Some effects of hypertension	Kidney failure, eyesight problems
Term used to describe a temperature reading taken in the armpit	Axillary
Term used to describe a temperature reading taken in the ear canal	Tympanic
An internal body temperature of 35 °C or below	Hypothermia
Groups especially vulnerable to hypothermia	The elderly, those who have been outdoors in cold weather or consumed alcohol
An internal body temperature of 37.5 °C or above	Hyperthermia
Two causes of a raised body temperature	Heatstroke, infection
The blood vessels supplying the limbs, such as arms and legs, fingers and toes	Peripheral circulation
How does the body manage its internal temperature during an infection?	The body raises its temperature to fight the infection. This is because the body's immune system produces proteins to fight the infection, which leads to a rise in temperature.
Some effects on the body of a temperature above 38.5 °C	Convulsions, vomiting, confusion
Sepsis	Failure of several organs, peripheral circulation

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Activity 15 - General measurements

Match-up

Match the question/statement with the correct answer. Either draw a line or put the correct answer in the answer box (right).

Question/Statement		
In blood pressure, the level of resistance in the artery wall between heartbeats is being pumped out of the heart into the aorta	1	The body responds to a rise in temperature by sweating. This is because the body is trying to cool down, such as producing heat to fight the invading bacteria, leading to a rise in temperature.
In blood pressure, the level of resistance in the artery wall between heartbeats	2	Hyperthermia
What is a 'normal' blood pressure reading?	3	Peripheral circulation
What is the name of the instrument used to take a blood pressure reading?	4	The elderly; babies; those who have been in the sun for a long time; those who have consumed alcohol
The lower chambers of the heart. The right chamber pumps blood to the lungs for re-oxygenation and the left pumps freshly oxygenated blood around the body	5	Fluid loss due to sweating
One of the main arteries supplying the arm	6	Sphygmomanometer
Low blood pressure of 90/60 mmHg or below	7	Hypotension
High blood pressure, 140/90 mmHg or higher	8	Hypertension
Dementia is caused by a blockage to the blood vessels in the brain	9	120/80 mmHg
A cause of hypotension	10	Diastole
Some effects of hypertension	11	Ventricles
Term used to describe a temperature reading taken in the armpit	12	Convulsions, delirium, vomiting
Term used to describe a temperature reading taken in the ear canal	13	Systole
An internal body temperature of 35 °C or below	14	Brachial artery
Groups especially vulnerable to hypothermia	15	Axillary
An internal body temperature of 37.5 °C or above	16	Heatstroke or infection
Two causes of a raised body temperature	17	Hypothermia
The blood vessels supplying the limbs, such as arms and legs, fingers and toes	18	Vascular dementia
How does the body manage to control its temperature during an infection?	19	Tympanic
Some effects of a raised body temperature above 38.5 °C	20	Failure of several organs; the peripheral circulation; death
Sepsis	21	Kidney failure, stroke, eyesight problems

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Activity 16 – Investigations appropriate to each individual

Teacher notes

Plenary Activity: Case study and diagnosis	
Aim of the activity	To enable students to decide possible information needed and individual's medical history, signs and symptoms.
Teacher's instructions	Put students into groups of 2–4. Give them 10 minutes to read the case study. When time's up, discuss the possible answers with the group.

Answers

Question	Possible responses
<i>What diagnosis might you immediately think of, based on Anuj's story?</i>	<ul style="list-style-type: none"> • Angina • Coronary heart disease
<i>What aspects of Anuj's family history are going to be important and why?</i>	<ul style="list-style-type: none"> • Ethnic origin: people from south Asian background, Bangladesh, are more at risk of developing coronary heart disease. • Family history: if a father or brother was under 55 with coronary heart disease, the individual is considered at high risk of the disease.
<i>What questions might you ask Anuj about his lifestyle and habits and why?</i>	<ul style="list-style-type: none"> • Diet: Anuj may be eating a diet high in ghee and saturated fat, which increases his risk of coronary heart disease. • Alcohol and smoking cigarettes: he may be drinking more than the recommended weekly government levels (14 units). Any amount of cigarette smoking will increase his risk of coronary heart disease. • Exercise: although he seems to be active in his job, he may not be exercising for 30 minutes a day, combining both aerobic and strength training. • Stress: Anuj may find that periods of stress and anxiety increase his risk of coronary heart disease.
<i>What blood tests might you order and why?</i>	<ul style="list-style-type: none"> • Lipid levels, such as high and low density lipoprotein levels. Different forms of lipids can indicate if Anuj is at risk of coronary heart disease. • Full blood count, which will include a measurement of haemoglobin. If Anuj is anaemic, any angina he has could be made worse. • Erythrocyte sedimentation rate (ESR): there is some evidence that a prolonged ESR may be helpful in diagnosing angina.

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Activity 16 - Investigations appropriate to each

Case study and diagnosis

Anuj is 51 years old. He is a marine engineer in a small company that makes hand built boats, so gets very involved in all aspects of the business, from drawings to finishing touches. Anuj's family originally came from Delhi, India, although Anuj has been living in the UK since he was five years old.

Anuj's father and grandfather both died of coronary heart disease in their fifties. Anuj thinks this is likely because at that time his family were very poor and couldn't afford good food or health care.

Over the last few months, Anuj has noticed that he experiences chest pains and breathlessness when he has to climb stairs or the ladders on the partly built boats when he's checking on their progress.

Imagine you're a trainee GP at a GP surgery when Anuj comes to see you. You have to present your assessment and possible diagnosis with your supervisor and mentor at a meeting.

GP Training Programme: Patient assessment	
Question	Your response
What diagnosis might you immediately think of, based on Anuj's story?	
What aspects of his family history are going to be important to you and why?	
What questions might you ask him about his lifestyle and habits, and why?	
What blood tests might you order, and why?	

Continue on a second page if you need to.

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Starter Activity: 'Speed dating'	
Aim of the activity	To give students an opportunity to check and share their knowledge, making them feel more comfortable about taking risks with their knowledge.
Teacher instructions	<p>Photocopy the questions and answers shown below, one copy for each student and one blank answer page for each 'note-taker'. (Cut out the questions and answers.)</p> <p>Put the students into pairs. One student will be the 'expert' and the other will be the 'note-taker'. Experts should sit in designated seats and will have a copy of the questions. Note-takers will have one minute in which to ask the experts a question and write down the answers on their worksheets. At the end of the minute, note-takers will move to the next expert and repeat the process. Students should be given a maximum of 10 minutes to complete the activity.</p>

Questions and answers

Questions	Answers
What is cerebrospinal fluid?	Cerebrospinal fluid is the clear fluid that surrounds the brain and spinal cord. It protects the brain from injury, distributes substances and nutrients, and removes waste from the nervous system.
What is a lumbar puncture?	It's made by the ventricles in the brain, which produce about 500 ml of CSF at a rate of about 0.35 ml per hour. The body constantly reabsorbs CSF, so there is usually only about 125–150 ml present at any one time. A lumbar puncture is a procedure during which a thin needle is inserted into the lumbar area of the spine. The needle passes through the dura mater and the spinal cord, which is filled with cerebrospinal fluid.
Explain why a lumbar puncture might be performed.	A lumbar puncture is carried out for a range of reasons, including: <ul style="list-style-type: none"> • to diagnose a condition, such as meningitis • to inject medicines, such as painkillers, antibiotics or chemotherapy • to inject a spinal anaesthetic (epidural), for surgery • to remove extra cerebrospinal fluid to reduce pressure
Explain two risks attached to a lumbar puncture.	Risks can include: <ul style="list-style-type: none"> • swelling and pain in the lower back, where the needle was inserted. This usually gets better by itself and may happen occasionally. • headaches, which can last up to a week. these are also usually self-limiting. • tingling or pins and needles if the needle touches a nerve. This usually goes away occasionally. • paralysis from the site of the lumbar puncture down the spine. This is very rare. The procedure is carried out by a highly trained health professional.
Explain the care that should be given following a lumbar puncture.	After the lumbar puncture, the service user will rest lying flat on their back for 2 hours. While resting, staff will monitor their blood pressure, pulse and temperature. Most people go home that day although they shouldn't drive. Whether somebody goes home or not depends on the reason for the procedure. If it's to check for an infection, the individual will need to be monitored for a few days.

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Questions	Answers
What is a biopsy and what are two reasons why it might be performed?	<p>A biopsy is when a doctor takes a small amount of tissue from the surface of the body.</p> <p>The word 'biopsy' means:</p> <ul style="list-style-type: none"> the procedure by which the tissue sample is taken the tissue sample itself <p>Biopsies are usually carried out for two reasons:</p> <ul style="list-style-type: none"> if the organ is swollen if the organ is not functioning properly
What could a biopsy indicate?	<ul style="list-style-type: none"> if there is an infection, such as tuberculosis the level of inflammation, such as in the liver or kidney what stage a cancer has reached what the prognosis could be for the service user the diagnosis of a skin condition what sort of treatment may be recommended if the tissue cells are abnormal, such as cancerous
Explain two different types of biopsy.	<p>Any two from:</p> <ul style="list-style-type: none"> Punch biopsy: when an instrument obtains a tissue sample by making a hole in the skin. Needle biopsy: when a hollow needle is used. Under local anaesthetic, a needle is passed through the skin and takes a tissue sample from beneath. Endoscopic biopsy: an endoscope is a flexible tube with a light at the end. It can be passed into the service user through the mouth or nose. Excision biopsy: when a small piece of tissue will be removed for examination. Perioperative biopsy: during an operation, the surgeon takes a tissue sample for examination.
Explain why a bone marrow biopsy might be carried out and which bone is most commonly used.	<ul style="list-style-type: none"> Countdown to investigate disorders such as leukaemia or to check for infection. <p>The sample is often taken from the top of the pelvis.</p>
Explain what an anaesthetic is and the difference between a general and local anaesthetic.	<ul style="list-style-type: none"> A way of preventing somebody feeling pain during a procedure. A local anaesthetic is a gel or injection to the immediate area. The service user probably be able to go home that day. A general anaesthetic means somebody is 'put to sleep'. They are unconscious. If it's a general anaesthetic, they may need a drip.

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Activity 17 - Procedures based on specific signs and symptoms

'Speed dating'

Note-taker worksheet

Questions	Answers
What is cerebrospinal fluid?	
What is a lumbar puncture?	
Explain why a lumbar puncture might be performed.	
Explain two risks attached to a lumbar puncture.	
Explain the care that should be given following a lumbar puncture.	
What is a biopsy and what are two reasons why it might be performed?	
What could a biopsy indicate?	
Explain two different types of biopsy.	
Explain why a bone marrow biopsy might be carried out and which bone is often used.	
Explain what an anaesthetic is and the difference between a general anaesthetic and a local anaesthetic.	

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Activity 18 – Importance of recognising non- or confusing symptoms

Teacher notes

Plenary Activity: Case study (letter)	
Aim of the activity	To give students an opportunity to apply their knowledge about
Teacher's instructions	<p>Get students to go into groups of between 2 and 4 and give a copy of</p> <p>Hand out the case study page, along with the letter fill-in pages. They are pretending to be Jasmine's GP and are explaining to her:</p> <ol style="list-style-type: none"> 1. what tests the GP will want to carry out and why 2. what the criteria are for diagnosing ME <p>Give two minutes to read the case study and a further 10 minutes to write the letter.</p> <p>Once time's up, go through the possible answers with the group, swap responses and mark each other's while you all discuss the possible answers and ask students to check their own work.</p>

Answers

1. What tests the GP will want to carry out, and why

There are a number of tests the GP will need to carry out, including:

- blood tests to exclude anaemia, underactive thyroid, liver and kidney problems
- taking a detailed medical history, to find out what Jasmine's symptoms are and how they affect her
- carrying out a thorough physical examination of as many body systems as possible, to find any unusual and abnormal signs
- a mental health assessment, as the GP will know that Jasmine has a stress management problem affecting her mental health and manifesting with these symptoms
- tests to exclude other possible disorders, such as tuberculosis, heart disease

2. What the criteria are for diagnosing ME

NICE have guidelines for the diagnosis of ME. They include:

- The ruling out of all other possible diagnoses, through careful testing and investigation
- The symptoms should have been present for at least four months.
- The symptoms should have started suddenly or be very new (i.e. not lifelong)
- The symptoms should last a long time.
- The symptoms should keep coming back.
- The symptoms should get worse after gentle exercise, such as a short walk
- The person can't do the things they used to do.

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Activity 18 - Importance of recognising non-specific or

Case study (letter)

Jasmine is 24 years old and a qualified midwife, working in a busy city hospital. In her own time, Jasmine usually goes to the gym three times a week and enjoys socialising with friends. She loves her job and is looking forward to a challenging and fulfilling career.

However, over the last few months this has all stopped as Jasmine has developed persistent flu-like symptoms, headaches, a sore throat and extreme exhaustion. A gentle walk through the park makes her so tired she has to lie on the sofa and she's had so much time off that her line manager is becoming concerned.

Jasmine is very worried and has visited her GP. She has looked up her symptoms online and thinks she may have myalgic encephalomyelitis (ME).

Read the case study above and imagine that you are Jasmine's GP. You know Jasmine is a professional, with some knowledge and understanding of her symptoms and they also realise that she's frightened and anxious, as well as feeling so unwell that she can't do everything you discussed during the consultation.

In a letter to her, you are going to explain to her:

1. what tests you will want to carry out
2. what the criteria are for diagnosing ME

Write your letter in the box below. It has been started for you. Go on to a separate sheet if you need more space.

Dear Jasmine,

I understand your signs and symptoms are puzzling and worrying for you, so that we're arranging for you and why they're necessary. Following our discussion I outlined the criteria for diagnosing myalgic encephalomyelitis (ME), so that you can have an informed discussion with me at our next meeting, after your test results are back.

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Activity 19 – Medication

Teacher notes

Plenary Activity: Black and green mind map	
Aim of the activity	To enable students to feel secure in their knowledge of anti-infectives.
Teacher's instructions	<p>Get students into groups of four.</p> <p>Hand out an information mind map, one to each group. Hand out (1 text box 2) and black and green pens, one for each group.</p> <p>Go through the mind map with the whole class. Then tell students to turn the mind map face down. Using the black pen, students must reproduce the mind map in the time that you choose to give them, such as five minutes. The whole activity should take a maximum of 15 minutes.</p> <p>The first words of each text box have been left, to give a clue about the activity short.</p> <p>Students turn the information mind map over and students must reproduce the mind map written against the original. They should add further information using a green pen.</p> <p>If needed, repeat the exercise, using a second blank mind map and repeat the green additions second time around.</p>

Additional resources:

You will need:

- black pens
- green pens



Activity 19 – Medication

Black and green mind map

Read through the information on the mind map. Then turn it over and, using the black pen, reproduce the mind map.

When your time is up, turn over the original mind map and compare your information with the original. Use your green pen to fill in the gaps.

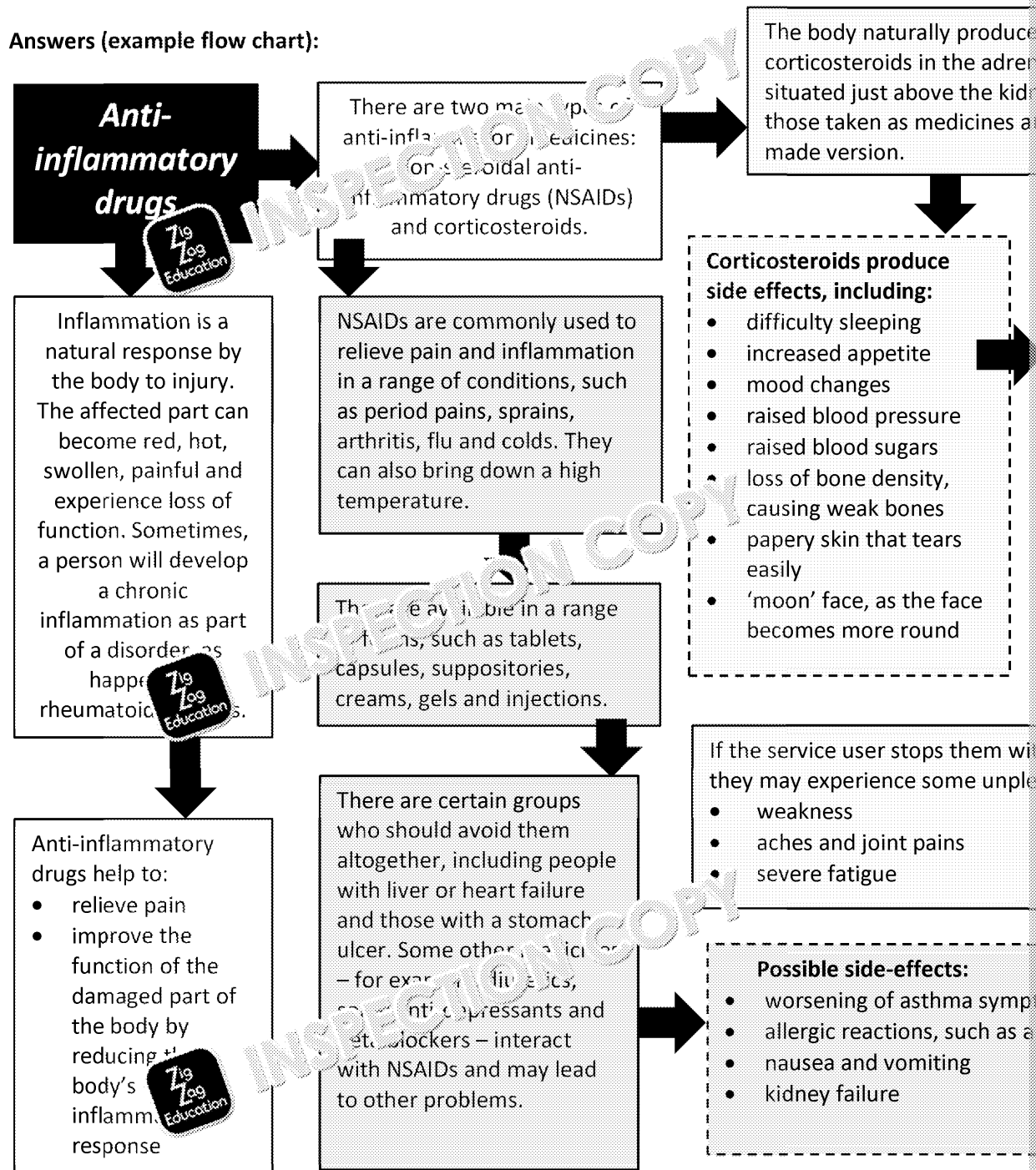
If time allows and you need to, repeat the activity with a second blank mind map and repeat the green additions second time around.



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Answers (example flow chart):



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Activity 20 – Surgery

Teacher notes

Starter Activity: Surgery – Define and cloze paragraph	
Aim of the activity	To give students an opportunity to familiarise themselves with the terms and apply it in a paragraph.
Teacher's instructions	In pairs or individually, students use the terms to define each given term and then use the definitions to complete the paragraph below. Give 2 minutes per definition (14 minutes), plus a further two minutes to complete the paragraph. When ready, go through the answers and check knowledge and understanding.

Answers

Words used: Where a term has more than one word, each word is found individually.

Word	Definition
biopsy	A piece of tissue removed from the body for the investigation of disease.
central venous catheter	A line inserted into a large vein, so that treatments may be given more easily.
chemotherapy	Drugs used to kill cancer cells.
control symptoms	If a cure isn't possible, chemotherapy and surgery may be used to control symptoms.
cure	When a cancer is completely eradicated.
diagnosis	Reaching a decision about the type of cancer or disorder by using medical tests to reach a diagnosis.
extend life	If a cancer can't be completely cured, surgery may be used to extend life.
mastectomy	The removal of breast tissue by surgery.
prevent	Surgery may be carried out in people with a high risk of developing the disease. For example, women with a family history of breast cancer may have their breasts removed.
reconstruction	To recreate a body part following trauma or surgery; for example, breast reconstruction following mastectomy.
reduce risk	Surgery may be carried out in people with a high risk of developing the disease. For example, women with a family history of breast cancer may have their breasts removed.
surgery	When an operation is carried out on the body for a reason, such as removing something that's causing a problem.
treatment	A means of reducing or eradicating signs or symptoms of a disease as a result of a disorder.
tumour	A collection of cells in an individual's body that are dividing uncontrollably.

Cloze paragraph: Words missing from the original version are in bold and underlined.

Surgery is used in cancer for a range of reasons, such as a **biopsy** to provide tissue for diagnosis. It may also be used as a treatment to **cure** cancer; for **reconstruction** of part of the body; to **control** symptoms; and to **reduce** risk or **prevent** cancer arising in the first place.

It's also used as part of other treatments for cancer. For example, a line may be inserted into the chest for **chemotherapy** to be given more easily. This line is known as a **central venous catheter**.

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Activity 20 - Surgery

Define and cloze paragraph

Write a brief definition for each word in the table below. One has been done for you. Then use some of the words (not all) to complete the paragraph below.

Word	Definition
biopsy	A piece of tissue removed from the body for the investigation of disease.
central venous catheter	
chemotherapy	
control symptoms	
cure	
diagnosis	
extend life	
mastectomy	
prevent	
reconstruction	
reduce risk	
surgery	
treatment	
tumour	

Surgery is used in cancer for a range of reasons, such as a _____ for _____ . _____ may also be used as a treatment for cancer; for _____ of part of the body is used as a _____ . _____ symptoms and _____ risk or _____ arising in the first place.

It's also used as part of other treatments for cancer. For example, a line may be inserted into the chest for _____ to be given more easily. This line is _____ .

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Activity 21 – Rehabilitation programmes

Teacher notes

Plenary Activity: case study and advice	
Aim of the activity	To enable students to apply their knowledge and understanding especially physiotherapy, to a case study.
Teacher's instructions	Put students into groups of 3–4 and get them to read the case study and answer the questions in the table below (10 minutes). You could then go through their responses as a whole class or group.

Questions and possible answers

1. How will I know what exercises to do at home?	<ul style="list-style-type: none"> We will go through the exercises together in the lesson. I will show your parents what exercises you have to do. I will give you a printed sheet with pictures and instructions.
2. What sorts of exercise am I likely to have to do?	<ul style="list-style-type: none"> Passive: ones that I will do for you, while you rest. Active: exercises that you have to do, such as circling the foot. Stretching the muscles, as they will have got tight after the surgery and the plaster cast. Strengthening the muscles, as they will have been weakened by the injury, the surgery and the plaster cast. Balance strengthening, as your balance will have been affected by the surgery and the plaster cast.
3. Why might I need ultrasound?	<ul style="list-style-type: none"> To accelerate healing, reduce pain and any swelling.
4. Will I be able to walk again?	<ul style="list-style-type: none"> Providing you follow the rehabilitation programme and the instructions, you should be able to return to normal walking. You must wait until your ankle has fully recovered and have permission by your physiotherapist and your doctor.
5. Will my ankle be as good as it was before the accident?	<ul style="list-style-type: none"> As long as you carry out your exercises and work on your strength and restore your balance, your ankle should be as good as new. However, you are likely to develop osteoarthritis as you are much older, such as in your fifties. If you don't follow your rehabilitation programme you may have continuing pain, swelling and stiffness.

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Activity 21 - Rehabilitation programme

Case study and advice

Zack is 16 years old. His main interest is motocross; he has won several recent competitions and is thinking of a career involving motorbikes and motocross. Zack's parents are very supportive of him and motocross is a family activity, with his younger sister also taking part.

However, he landed an injury during a recent competition and fractured his left ankle. It was treated with pins and plates and immobilised with a plaster cast. He is just about to have his plaster cast removed, as the wounds have now had time to heal, and he has been told that he will have to go through a physiotherapy programme to help his recovery and rehabilitation.

Zack is anxious about the physiotherapy. He's afraid he won't be able to compete again and that he won't be able to follow the career path of his dreams and is also very unsure about being able to carry out the exercises at home, even though his parents have promised to help him.

Read the case study above and imagine you are Zack's physiotherapist. You have to produce a Question and Answer sheet for Zack, which will address his concerns and he can read as often as he needs to, to remind himself of what you told him during physiotherapy sessions.

For each question, write in the advice that you will give to Zack when you next meet him. Continue on a separate sheet if you need to.

1. How do I know what exercises to do at home?	
2. What sorts of exercise am I likely to have to do?	
3. Why might I need ultrasound?	
4. Will I be able to ride in motocross again?	
5. Will my ankle be as good as it was before the accident?	

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Activity 22 – Complementary therapies

Teacher notes

Plenary Activity: Advantages and disadvantages

Aim of the activity	To give students an opportunity to develop their skills in analysing advantages and disadvantages of a complementary therapy.
Teacher's instructions	Put students into pairs. Ask them to focus on either acupuncture or aromatherapy. They should read the material (five minutes) and complete the appropriate advantages and disadvantages for the chosen therapy. When complete, or after 10 minutes, students could share their findings with their partner that studied the other therapy. Then discuss responses to the final questions for five minutes.

Answers

Acupuncture Advantages	Acupuncture Disadvantages	Aromatherapy Advantages
On NHS	It's not always available on NHS, so could be expensive	Pleasant to use because it smells nice
Recognised by NICE for treatment for headaches and migraines	The service user would have to travel to the acupuncturist	Easy to use
Some healthcare practitioners are also acupuncturists	It can have side effects	People can use it themselves without needing a professional practitioner
	Not much evidence to show that it works	Easy to get hold of the materials
		Can be empowering for individuals to treat themselves, such as when somebody has cancer

Which complementary therapy would you advise for an individual with cancer?

- Depends on: personal preference; how much money the service user has; how close to a qualified practitioner; if the service user feels well enough to go out to and about
- Service user might like the gentleness and relaxation of aromatherapy massage
- NHS acupuncture might be cheaper than buying essential oils, as long as service user is able to travel
- There's more evidence of effectiveness for acupuncture than aromatherapy

What other information might you want to know before deciding which therapy to recommend?

- Local cost and availability.
- How the practitioners are trained and regulated – are they well-trained and professional?
- Exactly what the risks are for each therapy

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Activity 22 - Complementary therapies

Advantages and disadvantages of acupuncture

Acupuncture is a well-known complementary therapy. Some medical professionals are also qualified acupuncturists and acupuncture is available on the NHS in some areas. In traditional Chinese acupuncture, Qi, the life force, travels through the body in 'meridian'. Acupuncture aims to restore the free flow of Qi by inserting the needles at different points on the body. Research suggests the needles stimulate sensory nerves just under the skin and in the muscles. This then produces substances such as pain-relieving endorphins, which is why acupuncture boosts the sense of well-being. The service user should feel no pain when the needles are inserted, although they may feel tingling or a dull ache. The most commonly used sites are the lower arms and legs.

Acupuncture is used to treat a wide range of disorders, including:

- chronic, tension-type headaches and migraines. NICE approves of acupuncture
- dental pain and pain following surgery
- neck and joint pain
- nausea and vomiting following surgery or chemotherapy

Side effects and problems with acupuncture:

- There isn't a great deal of evidence to prove that it works.
- Treatment of headaches is the only area where there is evidence of benefit, by NICE.
- The service user may feel dizzy, faint or even experience a temporary worsening of symptoms.

References and websites:

<https://www.uk-nations.com/health/Complementary/Acupuncture/>

https://www.cinenet.com/acupuncture/article.htm#acupuncture_facts

<https://www.nhs.uk/health-information/complementary-therapies/acupuncture>

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Activity 22 - Complementary therapies

Advantages and disadvantages of aromatherapy

Aromatherapy is a well-known complementary therapy that uses essential oils obtained from plants. It's thought to work by stimulating the olfactory system, the part of the brain concerned with the sense of smell, but many of the claims for aromatherapy have not been backed up by research.

Essential oils have been linked to mood, and because the essential oils are often applied through massage, it's thought the massage itself helps the individual to relax. The oils can be inhaled or added to bath water but should not be swallowed or applied to the skin undiluted.

The essential oil is added in tiny drops to a larger volume of oil. This 'carrier' oil is always a plant-based oil, such as almond, which is easily absorbed by the skin through massage. The oils may be used by the individual themselves or a qualified aromatherapist.

Side effects

Aromatherapy may cause side effects in some people. These can include:

- nausea
- headache
- allergic reaction, such as a rash
- sunburn: some oils, such as citrus oils, react with ultraviolet light, causing the skin to burn
- some essential oils may reduce or strengthen the effect of conventional medicines, so a doctor or aromatherapist should be taken

Aromatherapy and cancer

Some people with cancer use aromatherapy. Some of the benefits they report include:

- anxiety, depression and stress
- self-healing
- pain
- tiredness and insomnia
- reducing inflammation, as in arthritis
- nausea after surgery
- preventing or reducing infection
- supporting treatment for cancer

References and websites used:

<https://www.bupa.co.uk/health-information/complementary-therapies/aromatherapy>
<https://www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/complementary-therapies/individual-therapies/aromatherapy>

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Activity 22 - Complementary therapies

Advantages and disadvantages

Read the page on complementary therapies (either aromatherapy or acupuncture) on the advantages and disadvantages of the therapy and write them into the table.

Then decide how suitable you would consider the therapy to be for an individual with cancer and explain why. You should also think of other information you may want before using acupuncture or aromatherapy.

When your table is full, 10 minutes are up, you should either:

- discuss your ideas with your whole group or
- get together with a pair who focused on the other therapy and compare notes.

I focused on: _____

Advantages	Disadvantages

How suitable would you consider acupuncture/aromatherapy to be for an individual with cancer?

What other information might you want to know before deciding to use acupuncture/aromatherapy?

Go on to another sheet of paper if you need to.

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Activity 23 – Advice on lifestyle changes

Teacher notes

Plenary Activity: Spider diagrams	
Aim of the activity	To give students an opportunity to make visually accessible notes in their own studies.
Teacher's instructions	Students can work individually or in pairs. Students should read the notes then have 10 minutes to answer the questions on the note page. When time's up, go through the answers.

Answers

Question	Answer
Cost of smoking to the NHS	<ul style="list-style-type: none"> • More than £5.7 billion every year. • Cardiovascular disease as a result of smoking costs the NHS £1.5 billion a year. • Almost 1 in 5 deaths are due to a smoking-related illness.
Sources of support and advice	<ul style="list-style-type: none"> • Charity websites, e.g. British Heart Foundation and Cancer Research UK. • NHS website. • GPs and practice nurses in local GP surgeries. • High-street chemists usually have a pharmacist who can help with quitting smoking. • Complementary therapists. • Hypnotherapy has been used by some individuals to help them quit.
How does smoking cause health inequalities?	<ul style="list-style-type: none"> • According to NHS England, smoking is the single biggest cause of health inequalities. • The cost of cigarettes and tobacco forms a higher proportion of the budget for poorer households, leading not only to direct costs but also to contributing to trapping people in poverty.
How does the NHS help people quit?	<ul style="list-style-type: none"> • It is available throughout the UK and free at the point of use. • Advisers work with individuals and groups. • It helps identify the life circumstances that make it difficult to quit smoking, such as stress and family worries. • They can give support with changing patterns of behaviour. • It can meet the needs of different groups as it is tailored to different localities. • It can give information about medicines such as nicotine replacement therapy. • It can give the medicines out or provide a prescription. • A national helpline is available as well as online support. • Advice on where an individual can go for further support.

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Activity 23 - Advice on lifestyle change

Spider diagrams

Giving up smoking

It's been estimated that treating the effects of smoking costs the NHS:

- more than £5.7 billion every year
- cardiovascular disease as a result of smoking costs £205.8 million every year
- almost 1 in 5 deaths is due to smoking-related disorder

The need to reduce smoking is both financial and personal, as each individual who develops a smoking-related disorder will experience the impact throughout all aspects of their life. According to NHS England, smoking is the single biggest preventable cause of death. The cost of cigarettes and tobacco forms a higher proportion of spending among poorer people, so damage to their health but also contributing to trapping people in poverty. Nicotine addiction means that people who smoke should be advised to quit, unless there are exceptional circumstances.

Support services

Charity websites, such as British Heart Foundation and Cancer Research UK, have information about quitting smoking and advice. The NHS has several sections on its websites offering advice. GPs and practice nurses in local GP surgeries are able to give advice and support. Some surgeries have a pharmacist who is able to give advice about quitting smoking. Complementary therapies can offer support, and hypnotherapy has been used by some individuals.

Stop Smoking Services

The NHS has developed Stop Smoking Services, which are providing a valuable contribution to reducing smoking among poorer groups of the population.

Research by NHS England has shown:

- If somebody quits smoking aged 30, they can expect to live 10 years longer.
- If somebody quits smoking after a heart attack, they can reduce their chances of dying.

Stop Smoking Services are available throughout the UK and are free at the point of use. Stop Smoking advisers will work with individuals and groups to identify the circumstances that are making it hard for them to quit smoking, such as stress and lack of support with changing patterns of behaviour, making it easier for the smoker to be successful. Advisers can meet the needs of different groups because they're based in different localities. For example, young smokers of Afro-Caribbean culture may have different needs to older smokers in Wales.

Advisers can give information about medicines such as nicotine replacement therapy to help with quitting; they can also give the medicines out or provide a prescription, which is used to get the medicine over the counter.

There is a national helpline available as well as online, with information, support and advice. An individual can go for further support.

References and websites used

<https://www.cancerresearchuk.org/about-cancer/causes-of-cancer/smoking-and-cancer>
<https://www.smokefree.nhs.uk/smokefree/why-quit/smoking-health-problems>
<https://www.smokefree.nhs.uk/smokefree/why-quit/smoking-health-problems>
<https://quitnow.smokefree.nhs.uk/>
http://www.heart.org/HEARTORG/HealthyLiving/QuitSmoking/YourNon-SmokingLife/WhyQuit_UCM_324053_Article.jsp#.W1wJEvZFyP8

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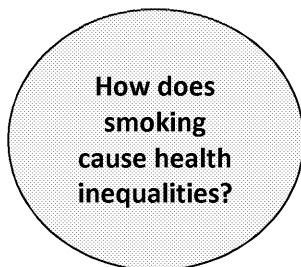
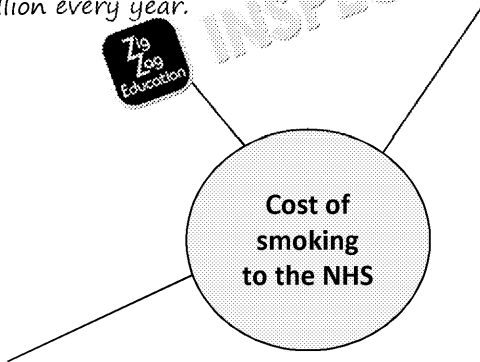


Activity 23 - Advice on lifestyle change

Spider diagrams

Read the article on giving up smoking and create spider diagrams to answer the questions on the next page if you need to.

Cardiovascular disease as a result of smoking costs £205.8 million every year. The NHS more than £5.7 billion every year.



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Activity 24 – Professional carers

Teacher notes

Starter Activity: Keyword paragraph	
Aim of the activity	To give students an opportunity to refresh their knowledge about carers by writing a summary paragraph using the vocabulary from the previous activity.
Teacher's instructions	Individually or in pairs, students should write a paragraph to answer the question 'What is meant by the term 'professional healthcare worker' and account for their role'. Give students 5–10 minutes, to write their summary paragraph and their answers.

Answers

Example paragraph:

Professional healthcare workers have undergone **training** and have achieved a **professional qualification**. Examples include **doctors, nurses, physiotherapists** and **care assistants**; some **practise** in their specific area. **Professional healthcare** workers receive a **salary** for the work they do. They are employed by a **national organisation**, such as the Nursing and Midwifery Council (NMC), as well as a **professional code of conduct**.

Accept other suitable paragraphs with all keywords used.

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Activity 24 - Professional carers

Keyword paragraph

Use the keywords to answer the following question.

What is meant by the term 'professional healthcare worker' and how are they managed?

Words to use		
accountable	physiotherapist	
care assistants	practitioners	
code of conduct	professional	
doctors	national organisation	
healthcare	NMC	

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Activity 25 – Informal carers

Teacher notes

Plenary Activity: Case study (email)	
Aim of the activity	To give students an opportunity to apply their knowledge and understanding of informal carers to a case study.
Teacher's instructions	Divide students into groups of 2-4. Give students two minutes to read the case study and then 10 minutes to discuss student responses, using possible answers below.

Possible answers

Role of an informal carer:

- shopping for Florence
- carrying out everyday chores, such as laundry, washing-up and housework
- preparing food and drinks
- helping Florence with personal hygiene
- helping Florence get dressed
- helping Florence carry out exercises that the physiotherapist has set for her
- keeping Florence company, chatting and listening
- taking Florence out when she feels strong enough
- helping Florence take her prescribed medication

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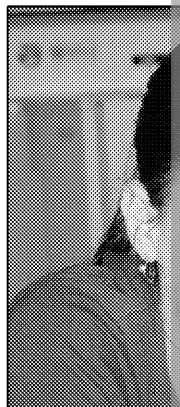


Activity 25 - Informal carers

Case study (email)

Melanie is 25 years old and lives next door to her elderly neighbour, Florence, aged 88. She knows that Florence has been in hospital following a fall on an icy pavement, which led to her fracturing the neck of her femur and needing a hip replacement. Florence has no family and will have to rely on neighbours and friends to help care for her while she regains her health and confidence once she returns home.

Melanie is one of a group of neighbours who have agreed to help support Florence, but she has no experience of care and is concerned about what her role involves. She has emailed Florence's son, asking the community nursing team about what they should be doing for Florence.



Imagine you are the district nurse responding to Melanie's concern about what she should be doing to support Florence.

Read the case study above and write an email to Melanie in reply.

To: Melanie@unrealemail.com

From:

Subject:

Dear Melanie,

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Go on to a second page if you need to.

Activity 26 – Private and voluntary carers

Teacher notes

Plenary Activity: 'How much do you know?'	
Aim of the activity	To give students an opportunity to check their own knowledge gaps.
Teacher instructions	<p>Get the students into pairs and hand out one student resource. Students should study the photograph and then write down as much as they can about public and private care agencies.</p> <p>When ready, start the timer (for three minutes) to initiate the activity.</p> <p>When time's up, students need to:</p> <p>either look at other students' responses and add in any additional information</p> <p>OR this could be done as a whole-class activity, with responses that students can write them down.</p> <p>The whole activity should take a maximum of 15 minutes.</p>

Answers

Age UK	Private
<ul style="list-style-type: none"> Nationwide support network and local support Advice line Mobility aids Exercise classes Social activities Day care centres Dementia support Can provide training for DBS-checked staff in some areas Footcare services in some areas Handyperson to carry out minor repairs in some areas Home help in some areas Care assistants for personal care in some areas 	<ul style="list-style-type: none"> Regulated by Care Act Staff will have clear roles Provide trained and qualified staff Out-of-hours emergency services Will want to meet with carer to understand needs Will take care of costs and national insurance Can't always guarantee services Expensive

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Activity 26 - Private and voluntary care

'How much do you know?'




This photo shows a group, which is led once a month and active and engaged.

Study the photograph above.

Your teacher will give you three minutes in which to write down as much information about Age UK and private care agencies. You could think about their role, how much they help people to find and use their services.

Write your responses in the table below.

Age UK	Private
	

Now share your information with the rest of your class.
Add in any additional information that you haven't included.
Go on to a second page if needed.

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Activity 27 – Care settings

Teacher notes

Plenary Activity: Advantages and disadvantages	
Aim of the activity	To give students an opportunity to develop their skills in analysing advantages and disadvantages of a care setting.
Teacher instructions	<p>Hand worksheets to each student.</p> <p>Students choose 'own home' or 'residential home' as a care setting (two minutes). Then complete the attached sheet, identifying advantages and disadvantages for the care chosen setting (eight minutes).</p> <p>When ready, review students' responses. Students can share their ideas or discuss their ideas as a whole group.</p>

Possible answers

Own home: advantages	Own home: disadvantages	Residential home: advantages
Cheaper than hospital or residential care	Have to find formal and informal care staff to come in	Trained, professional carers
Less infection risk	Care is expensive	Warm, dry and clean surroundings
Continuity of care, can stay in own familiar surroundings with their own possessions	Bills, such as food, water, heating, council tax, house and garden maintenance, are all expensive	Plenty of social contact, reducing loneliness and isolation
Supports person's sense of identity	The person may find themselves alone for long periods and become very lonely and isolated	Activities available, such as painting and outings, so less chance to disengage from society
Formal and informal carers can come in	Person may lack activities and become bored and disengaged	Support with daily tasks readily available, such as bathing and dressing, shopping with food and laundry service provided

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Activity 27 - Care settings

Advantages and disadvantages

Own home

People usually like to stay in their own homes for as long as possible and there are forms of support available to help them. Usually, these would be less expensive than somebody in residential care or hospital, for example.

Because there aren't so many people around, the risk from infection is less in the user's home, providing basic safety rules are followed. Another benefit is that they may help them stay in touch with the people and possessions that are important to somebody and their sense of identity, which may help them maintain independence and enjoy, such as gardening or walking their dog. All of these are important to a service user's social health.

Care assistants can come in as often as needed or stay there for 24 hours, depending on the user's needs. They can be provided by the local council, a private care agency, a charity or be offered by family. GPs and district nurses can make home visits, which can include regular checks and advice. Informal carers, such as friends, family and neighbours may be available to give support so the user can stay in their own home.

Physiotherapists, occupational therapists and chiropodists are all examples of health professionals who can make home visits. They can be funded by the NHS or paid for privately.

Residential homes

At times, it becomes impossible for somebody to stay in their own home. This can be because their health deteriorates to the point where they can no longer look after themselves or their informal carer is no longer able to care for them. Long-term, residential care then becomes necessary. Many residential homes are also nursing homes, so that should the user's health get worse, they can stay in the same home but receive more care if they need it.

Residential care is different from nursing care. If an individual needs residential care, they may need help with personal care, such as washing, dressing and going to the toilet. They may also need help with meals, as well as giving their usual informal carers a break, known as respite care. Some people with a medical condition or illness, who may need specialist care and support, such as for dementia, may also need residential care.

Most residential homes will offer en-suite accommodation, with meals taken in the common room. Some have larger rooms for couples to stay together. Some allow residents to bring their own furniture. Residential homes are regulated by the Care Quality Commission (CQC) and previous reports can be found on the CQC website and on the residential home website. Their staff will be trained and qualified, and will have checks such as DBS checks.

Many residential homes have regular visits from professionals such as district nurses. They may also provide a range of activities, including group exercises, outings and painting.

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Activity 27 - Care settings

Advantages and disadvantages of own home as a care setting

Read the article on the service user's own home as a care setting. Decide what the advantages and disadvantages may be and write your ideas into the table below. Two ideas have been written in for you.

After 10 minutes, or when your teacher tells you to stop, either:

- Join up with a pair who have finished their residential homes and share your ideas with each other **or**
- Share your ideas with the whole group.

Own home: advantages	Own home: disadvantages
Feel safe and secure in own surroundings, with own possessions.	Will have to wait for care services.

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Activity 27 - Care settings

Advantages and disadvantages of residential home as a care setting

Read the article on residential homes as care settings. Decide what the advantages and disadvantages may be and write your ideas into the table below. Two ideas have already been written in for you.

After 10 minutes, or when your teacher tells you to stop, either:

- Join up with a pair who have finished their own home and share your ideas with each other **or**
- Share your ideas with the whole group.

Residential home: advantages	Residential home: disadvantages
Heating, food, hot water and laundry service provided.	Can't bring own furniture and belongings, so could miss from being in a familiar surroundings.

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Activity 28 – Care settings

Teacher notes

Plenary Activity: 'Pass the hat'	
Aim of the activity	To give students an opportunity to test their knowledge by talking the hat for a very limited period.
Teacher's instructions	<p>Photocopy the topic questions and answers below. One set has been placed on a table, to make it easier to check the questions and answers for the students have been given. It is easier for cutting, especially if the teacher is following the instructions. Cut them up. Fold the questions up, then place in the hat or bowl to use.</p> <p>There are two ways of carrying out this activity:</p> <p>Option A</p> <ol style="list-style-type: none"> 1. Get all the students to sit on one side of the room. 2. One student draws a question out of the hat and on the wall for 30 seconds about the topic (or until the question is completed). 3. When 30 seconds are up, call out 'Stop'. 4. Read out the answer and decide if the student has answered correctly. If not, they must go and sit on the other side of the room. 5. Continue until all the students are sitting on the other side of the room. <p>Option B</p> <p>Alternatively, you could divide the students into groups, provide a student in the group and the answer face down on the table. One student is the 'question master' and asks the question. The other students are responsible for deciding if the student has answered correctly. In this case, the student should be given a maximum of 15 minutes to answer the question. If the student is correct, they should be given a maximum of 15 minutes to answer the question. If the student is incorrect, they should be given a maximum of 15 minutes to answer the question.</p> <p>Another option, students could also make notes in their own words.</p>

Additional resources: stopwatch

Questions and answers for teacher use

Question	Answer
1. Give three examples of services available at GP surgeries and health centres.	1. Any three from: <ul style="list-style-type: none"> • GP • District nurses • Midwives • Screening, such as for cervical cancer • Health visitors • Physiotherapy • Cancer care and support • Counselling • Minor surgery, such as vasectomy • Pharmacy • Regular health checks on long-term conditions such as asthma
2. How are GP surgeries and health centres regulated?	2. <ul style="list-style-type: none"> • Through Care Quality Commission

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Question	Answer
3. How much do service users have to pay at GP surgeries and health centres?	3. <ul style="list-style-type: none"> Services are free at the point of use Prescriptions have to be paid for
4. Give three examples of services available through a hospital.	4. Any three from: <ul style="list-style-type: none"> Accident and Emergency services Family planning services Sexual health services Physical and mental health disorders Treatment for female genital mutilation domestic or sexual violence Maternity services Specialist services, such as paediatrics Inpatient wards Outpatient clinics Diagnostic procedures, such as ultrasound
5. How are hospitals regulated?	5. <ul style="list-style-type: none"> Through Care Quality Commission (CQC)
6. How much do service users have to pay to use hospital services?	6. <ul style="list-style-type: none"> Services are free at the point of use Prescriptions have to be paid for If the service user is from outside the UK, they may have to pay
7. Give two examples of health professionals who may be involved in rehabilitation.	7. Any two from: <ul style="list-style-type: none"> Physiotherapists Occupational therapists Counsellors Psychologists Doctors Nurses
8. Give one example of a specialist rehabilitation centre.	8. Any one from: <ul style="list-style-type: none"> Spinal injury unit Limb fitting centre Local hospital Rehabilitation centre Learning disability centre Cardiac/stroke rehabilitation unit Mental health services
9. Give one example of a non-specialist rehabilitation centre that will have trained staff to hand.	9. Any one from: <ul style="list-style-type: none"> Local health centre Gym Community centre Sports centre School sports Online tools
10. Give one example of rehabilitation that can include structured peer support.	10. Any one from: <ul style="list-style-type: none"> Walking group Dance club Inclusive sports or stroke club Local community leisure facilities, such as

Activity 28 - Care settings

Pass the hat

Questions and answers – to be cut up

1. Give three examples of services available through GP surgeries and health centres
2. How are GP surgeries and health centres regulated?
3. How much do service users have to pay at GP surgeries and health centres?
4. Give three examples of services available through a hospital.
5. How are hospitals regulated?
6. How much do service users have to pay to use hospital services?
7. Give two examples of health professionals who may be involved in rehabilitation.
8. Give one example of a specialist rehabilitation centre.
9. Give one example of a non-specialist rehabilitation centre that will have a rehabilitation team.
10. Give one example of rehabilitation that can include structured peer support.

1. Any three from:
 - GP
 - Midwives
 - Health visitors
 - Community support
 - Minor surgery, such as vasectomies
 - Regular health checks on long-term disorders, such as asthma
 - District nurses
 - Screening, such as cervical smears
 - Physiotherapy
 - Counselling
 - Pharmacy
2.
 - Through Care Quality Commission (CQC)
3.
 - Services are free at the point of use
 - Prescriptions have to be paid for
4. Any three from:
 - Accident and Emergency services
 - Family planning services
 - Sexual health services
 - Physical and mental health disorders
 - Treatment for female genital mutilation (FGM), torture, domestic or sexual violence
 - Maternity services
 - Specialist services, such as paediatrics
 - Inpatient wards
 - Outpatient clinics
 - Diagnostic procedures, such as ultrasound scans
5.
 - Through Care Quality Commission (CQC)
6.
 - Services are free at the point of use
 - Prescriptions have to be paid for
 - If the service user is from outside the UK, they may have to pay

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- | | | |
|-------------------|---|---|
| 7. Any two from: | <ul style="list-style-type: none"> • Physiotherapists • Counsellors • Doctors | <ul style="list-style-type: none"> • Occupational therapists • Psychologists • Nurses |
| 8. Any one from: | <ul style="list-style-type: none"> • Spinal injury unit • Local hospital • Learning disability centre • Mental health services | <ul style="list-style-type: none"> • Limb fitting centre • Health centre • Cardiac/stroke rehabilitation |
| 9. Any one from: | <ul style="list-style-type: none"> • Local health centre • Community centre • School sports | <ul style="list-style-type: none"> • Sports centre • Online tools |
| 10. Any one from: | <ul style="list-style-type: none"> • Walking group • Dance club • Inclusive sports or stroke club • Local community leisure facilities, such as swimming pool | |

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Activity 29 – Assessment of care needs

Teacher notes

Plenary Activity: case study (Letter)	
Aim of the activity	To give students an opportunity to apply their knowledge and understanding to a real-life scenario.
Teacher's instructions	Students work individually, reading the case study (two minutes). Students should then compare answers with another group or discuss as a whole group.

Answers

Type of care	Explanation
Primary	Services that are the first point of contact for most people with a health condition. It includes GPs, dentists, nurse practitioners and pharmacists.
Secondary	Hospital and community care that includes treatment for a health condition. It includes emergency treatment, such as for a severe injury.
Tertiary	Care that is specialised, referred either by a primary or secondary care professional. In this case study, this means Harry being referred to the dialysis unit for his heart problems.

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Activity 29 - Assessment of care needs

Case study (letter)

Harry is a 62-year-old builder. When he carries heavy loads across the building site, he experiences chest pain so has made an appointment with his GP.

Before his appointment, he collapses with severe chest pain that travels up the left side of his neck and down his arm. His colleague takes him to the Accident and Emergency department at the local hospital, where the medical team decides to admit him to the Cardiac unit.

While Harry is being treated for angina and investigated for coronary heart disease, the medical team also discovers that his blood sugar levels are abnormally high and decide to refer him to the diabetic clinic to diagnose type 2 diabetes.

Harry's wife, Cynthia, is visiting him in hospital and overhears a conversation between staff involving the words 'primary', 'secondary' and 'tertiary'. She thinks the staff are talking about terminal cancer and is understandably extremely anxious and upset. However, at the end of the time, she goes home and then emails the ward about what she heard.

Imagine you are the nurse looking after Harry. You need to explain to Cynthia that what she heard was not a discussion about Harry having cancer, but a referral to the different types of care in the NHS. You have decided the best way to do this is in a letter.

Write your letter in the box below. The correct sentence of the letter has been written for you. Go on to a second page if you need a full page.

Dear Mrs Evans,

I am so sorry that you were not more fully informed about the steps the hospital is taking to provide the care he needs. I am also sorry that you overheard the conversation, which should have been private, because of that you have misunderstood what was being said.

What we actually meant by the terms 'primary', 'secondary' and 'tertiary' is as follows:

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Activity 30 – Reviewing care needs

Teacher notes

Plenary Activity: case study (home visit)	
Aim of the activity	To give students an opportunity to apply their knowledge and understanding to a real-life scenario.
Teacher's instructions	Students can work in pairs, reading the case study (two minutes) that they can discuss with Edward on the home visit (eight minutes). Students should then compare answers with another group or the whole group.

Possible answers

There are a number of factors that the GP, nurses and hospital consultant are likely reviewing Edward and his changing care needs.

For example:

- the change in Edward's Parkinson's disease and assessing whether he's developed any complications
- Betty's own health and whether she can continue to care for her husband
- assessing whether Edward needs more care within the home, such as care assistance
- assessing whether Edward actually needs long-term residential care
- the couple's financial situation, as this may affect any care services they want to access and any financial benefits from social services
- the type of housing and locality in which Edward and Betty live, as this may affect the services available and there might be nearby
- how much support they have from friends and their family

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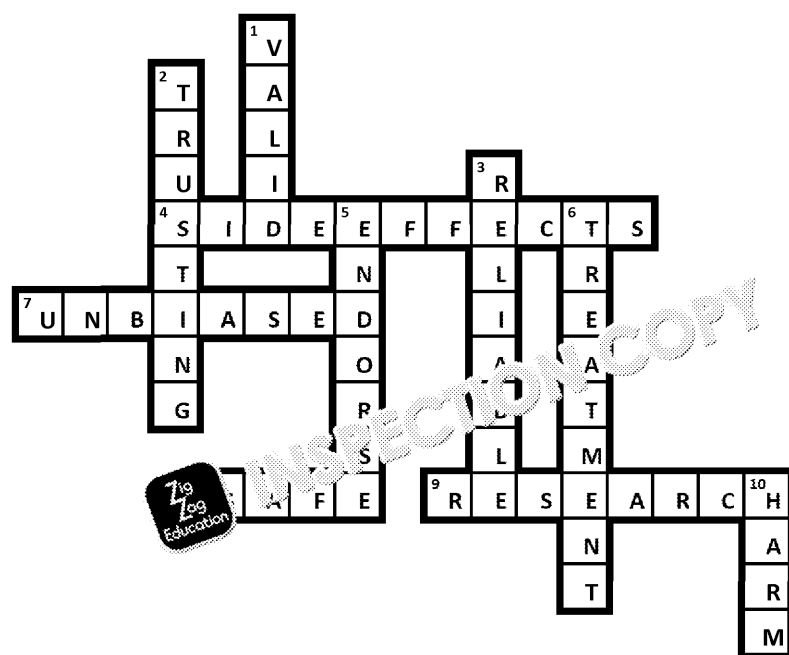


Activity 31 – Validity and reliability of sources information on possible treatments

Teacher notes

Starter Activity: article and crossword	
Aim of the activity	To introduce students to vocabulary associated with establishing sources of information on possible treatments.
Teacher's instructions	Students work in pairs or individually. They should read and discuss the article and attempt the crossword (approximately 10 minutes). When ready, go through the answers or get students to peer mark.

Answers



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Activity 31 - Validity and reliability of sources of information

Information and research on possible treatments

Part of the trusting relationship between service users and health care providers is based on the understanding that the treatments prescribed are as safe and reliable as they can be. If a doctor or nurse prescribes a medicine, we expect them to be aware of the side effects, when the medicine should not be used and to prescribe the one that is best suited to meet the individual's needs. In 1859 Florence Nightingale wrote in her *Notes on Nursing* that the hospital should do the sick no harm, and in the twenty-first century that principle can be applied to every aspect of healthcare.

The purposes of research includes:

- establishing more effective treatments and care
- ensuring that current treatments and care are as safe as they could be

In 2017–2018, the Medical Research Council (MRC) spent £814.1 million on funding medical research, much of it taking place through universities. This was an increase on 2017 and the work carried out in these establishments is expected to be valid and reliable. For example, be replicated by different teams in different places and still achieve similar results, both service providers and service users trust both the information and the results.

Not all sources of information, however, are reliable and valid. Some articles in magazines are promoting a particular product and are presenting it in a way that appears unbiased. Statistics, customer quotations and sometimes celebrities who endorse the product. When thinking about trying one of these products, it's sensible to research it first, either by asking a health practitioner such as a GP or practice nurse. A product may not be as safe as it seems and may even work against some of the medication that the individual is already taking. A user could end up spending money on an expensive product that makes little difference to their condition. At worst, the product could cause them harm.

Many charities that support specific disorders publish research on different treatments. These are easily accessible by the service user and are written so that anyone, not just a professional, can understand them. Diabetes UK and Arthritis Research UK are just two examples. The NHS and UK government are also reliable sources of information.

References and websites used:

<https://mrc.ukri.org/about/what-we-do/spending-accountability/facts/>

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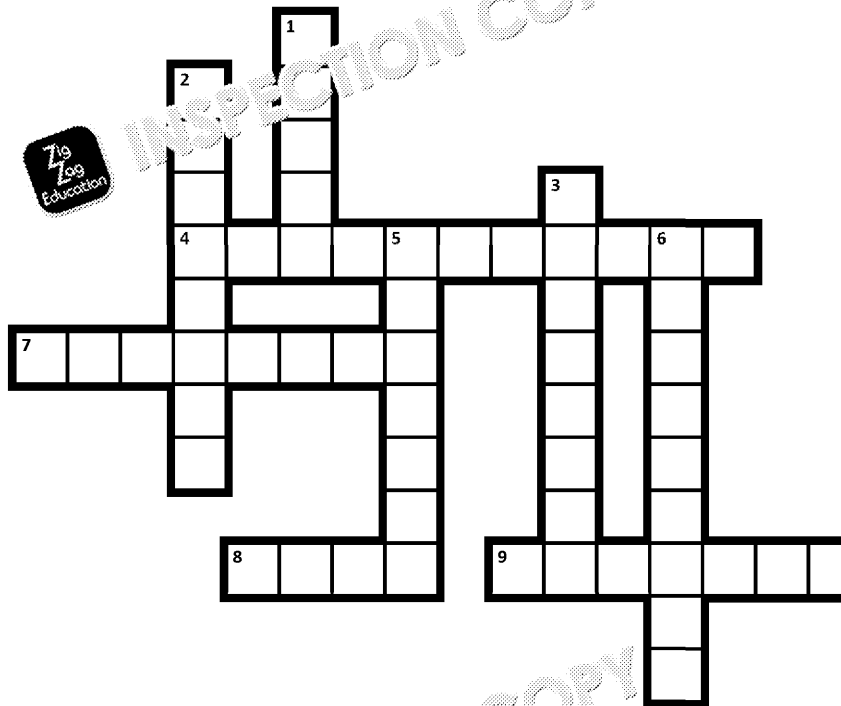
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Activity 31 – Validity and reliability of sources of information

Article and crossword

Read the article about the validity and reliability of sources of information on possible treatments. Then answer the clues by reading the question and writing your answers in the boxes that correspond with the question number and direction.



Across

- 4 When a medicine or a procedure causes unlooked-for benefits or problems (4,7)
- 7 Reporting both the positive and the negative aspects of a product's performance and effects (8)
- 8 What we expect our treatments to be (4)
- 9 This is carried out to ensure a treatment or procedure is safe (8)

Down

- 1 Claims about a treatment may or may not be correct (5)
- 2 Nature of the relationship between the patient and care provider (8)
- 3 Reporting what we know from research (5)
- 5 When a celebrity or sports star says how good a treatment is (5)
- 6 Word given to a method of relieving signs and symptoms (5)
- 10 Florence Nightingale believed that hospitals should not be too crowded (10)

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Activity 32 – Cycle of planning

Teacher notes

Starter Activity: Black and green mind map	
Aim of the activity	To give students an opportunity to check their own knowledge with its definition.
Teacher's instructions	<p>Get students into groups of four.</p> <p>Hand out an information mind map, one to each group. Hand out black and green pens, one for each group.</p> <p>Go through the mind map with the whole class. Then tell students to turn their mind map face down. Using the black pen, students must reproduce the mind map in the time that you choose to give them, such as five minutes. Each of each text box have been left, to give a clue about the content for a starter.</p> <p>The whole activity should take a maximum of 15 minutes.</p> <p>Students turn the information mind map over and compare with the original. They should add further information in their own version using the green pen.</p> <p>If needed, repeat the exercise, using a second blank mind map and green additions second time around.</p> <p>An A3 copy of the mind map is provided in Appendix 3.</p>

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Cycle of planning

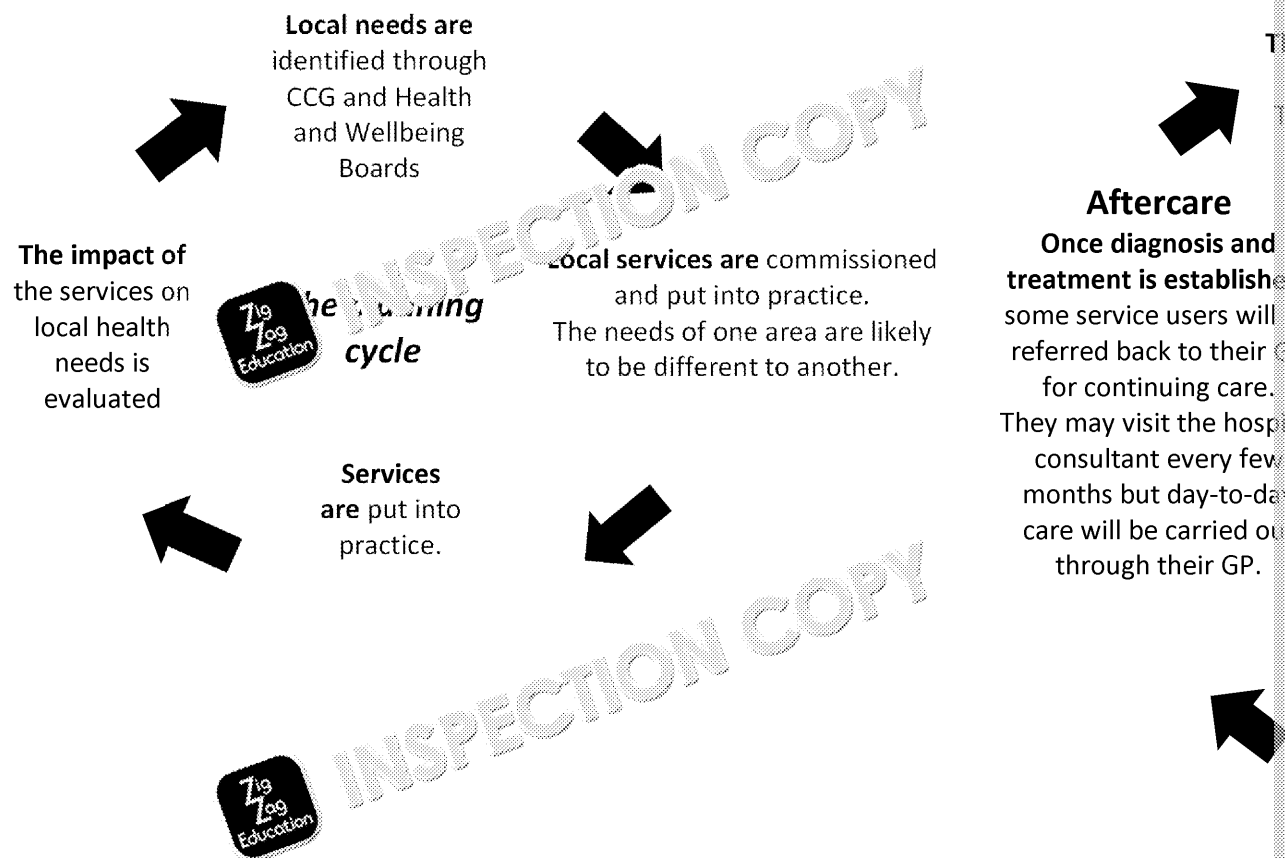
The most recent reorganisation of the NHS came into force on 1st April 2013. Part of the restructuring is an attempt to identify and then meet people's health and wellbeing needs on a local basis.

Clinical Commissioning Groups are made up of doctors, nurses and other health professionals.

Aim to meet local health needs by buying services from a range of providers. These providers may be NHS, private or voluntary.

Health and wellbeing boards

Purpose is to ensure services work together to meet local needs. Local people, including elected councillors and community members, are involved in the process.



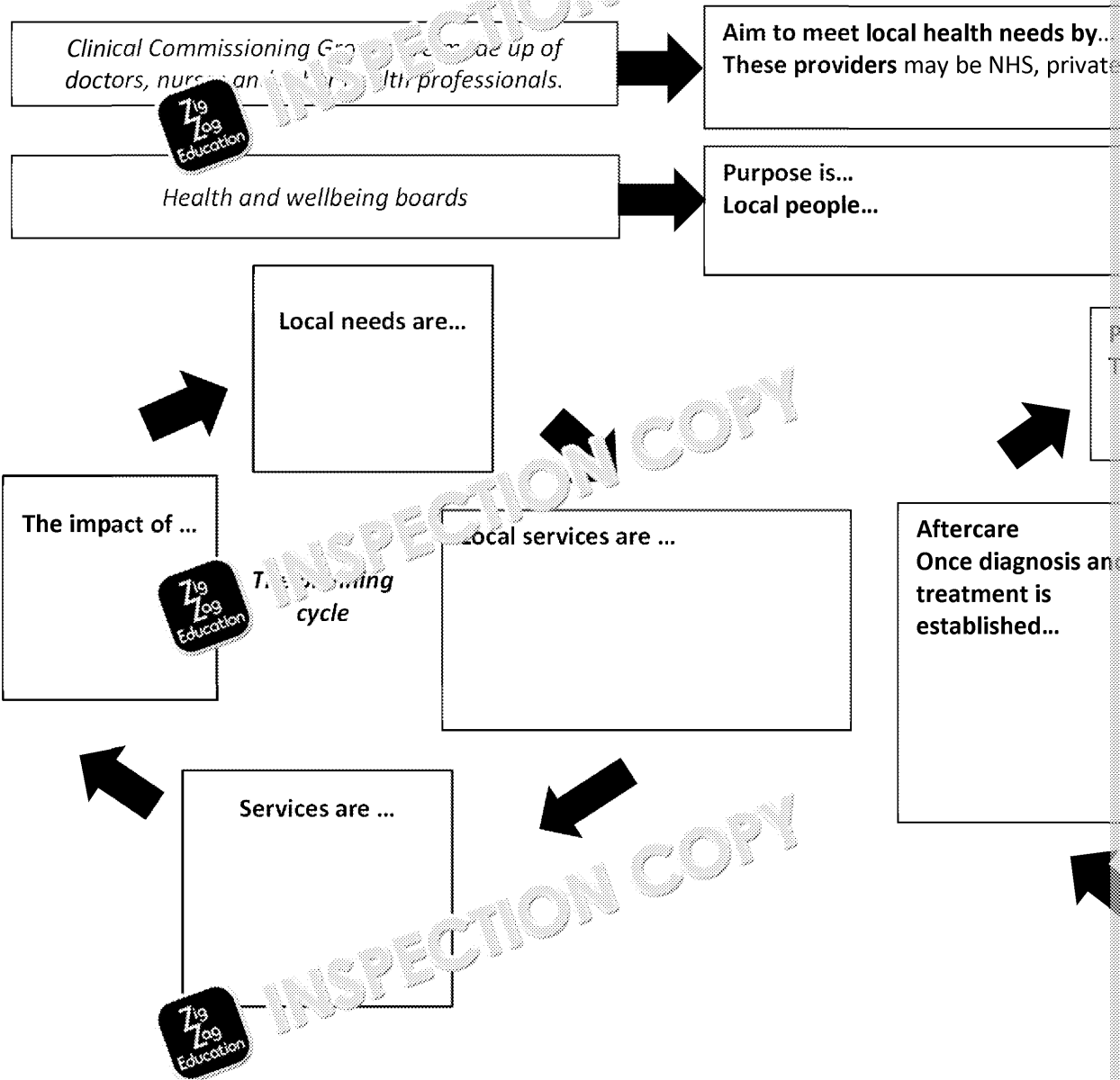
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Cycle of planning

The most recent reorganisation of the NHS came into force on 1st April 2013. Part of the restructuring is an attempt to identify and then meet people's health and wellbeing needs on a local basis.



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Activity 33 – Individual needs, including culture, gender, age, religion and disability

Teacher notes

Plenary Activity: Case study and meet	
Aim of the activity	To give students an opportunity to apply their knowledge and skills.
Teacher's instructions	<p>Put students into groups of 2–4.</p> <p>Give students five minutes to read the background information on the communities; then a further two minutes to read the case study and spend 5–8 minutes listing ways to meet her individual needs.</p> <p>You can then come back together or get students to check their answers below.</p> <p>Extension: Four more case studies are given on the follow-up page and disability. Read the attached case studies and answer the questions.</p>

Possible answers to gender case study

Action	How this will support
Ensure Kizzy knows she can meet with a female GP and nurse.	Meets her cultural preference accepted, safe and respected
Ensure she knows she can undress in private and have a blanket to cover her up, should an intimate or abdominal examination be necessary.	Meets her cultural preference accepted, safe and respected
Accept her registration at the surgery without ID or proof of address.	NHS England states these are not required
Accept she insists on bringing her children and possibly supportive women, such as her mother and aunts.	Meets her cultural preference accepted, safe and respected
Be tactful with leaflets, etc. as Kizzy may not be skilled at reading or writing.	Will ensure Kizzy has all the information to help establish a positive, supportive relationship
If she admits to being the victim of domestic violence, suggest a safety plan and explain this doesn't mean she necessarily has to leave her husband permanently.	Nobody should have to tolerate domestic violence, regardless of their culture
Suggest she has a spare key cut for the car and some money hidden away in case of emergencies. This may be her only means of escape.	May provide a way that enables her to protect her own and her children's safety and her culture.
Collect together any important documents, such as her children's red health record books, birth certificates, etc.	Will ensure she can get away and have a safe place and have proof of identity if these are needed.
Ask her to think of someone she could turn to for help.	People from gypsy traveller communities are reluctant to call the police but may be more willing to call a community member for help if needed. Know where she is and her decision-making power.
Provide a 24-hour telephone number for a domestic violence helpline.	For use so that Kizzy has someone to call for help and her children's safety.

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Possible answers for extension case studies

Age: Arthur

Answer:

- Refer to physiotherapist and occupational therapist for home visits, if Arthur is unable to attend.
- Ensure Arthur has the medication he needs for pain relief.
- Encourage Arthur to attend the hospital consultant, to see if he could have joint surgery.
- Encourage Arthur and his family to apply for benefits such as carer's allowance.

Disability: Duke

Answer:

- Involve and inform Duke's parents in the steps the school is taking to give Duke the best possible education.
- Provide any aids they could use at home, to support his education within school.
- Remind them of the value of listening to him read a little bit every day.
- Remember that Duke's parents themselves may have a low literacy level, so avoid any material that's too complex.
- Be willing and available to talk through issues on a regular basis.

Culture: Naomi and Cindy

Answer:

- Ensure the couple have access to support material, which will include charities and support groups for people in the LGBT community.
- Be prepared to listen and offer non-judgemental support.
- Remind the couple of their rights.
- Respect their decisions.

Religion: Penny

Answer:

- Ensure Penny has the opportunity to speak to the priest when in hospital.
- Respect Penny's religious needs and wants.
- See if a chaplain or priest could arrange to do a Mass or blessing at Penny's bedside for her.

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Activity 33 - Individual needs, including culture, gender, age

Background information on gypsy and traveller communities

There are estimated to be 300,000 gypsies and travellers in the UK¹. Gypsies and Irish travellers are recognised as ethnic minorities and communities have their own language and dialects.

'Mochadi' laws are customs around cleanliness and modesty. For example, women's washed underwear would not be displayed on the washing line but hidden away with a T-shirt or a towel. They will have one bowl for washing up and another for washing the body. Both sexes may consider it immodest to undress in front of anyone else.



Family support is extremely important. Those with learning disabilities, additional needs, or those who are looked after by their family members, who are very keen to do their best for their family, tends to be poor and many families and individuals miss out on money to do things they want. This is a further barrier – it's estimated that 45% of the gypsy traveller communities have no access to mainstream services extremely difficult.

There are specific health and social care concerns. Women are estimated to live 10 years less than people in settled communities². They are three times more likely to experience mental health issues, likely to have depression. 39% are likely to have a long-term disorder, compared to 15% in the general population. Women have a higher rate of miscarriage and stillbirth and there's a higher rate of pregnancy and shortly after childbirth. There's also a higher rate of neonatal death.

Gypsy and traveller people are likely to only want to see a GP of their own sex. If they are not carers, they may find it hard to attend a GP appointment and have to bring their carer. Despite the figures quoted above, often kept within the family and not shared with the wider community. People have a deeply held belief in the authority of the family and a lack of knowledge about the NHS. They may be unable to provide their address or ID, so could find it difficult to register with a GP. NHS England states that an individual doesn't have to provide an address or ID in order to register.

Men and women often follow gender-specific roles, the man being the 'family head' or 'family heart.' Interference between spouses is taboo and a woman leaving her marriage is rare. The belief that many men are violent and that the woman has to accept it makes it difficult for women to speak out¹.

Individuals who are lesbian, gay, bisexual or transgender (LGBT) may find it very difficult to access services. There is an increasing amount of information available online for people to be able to access it.

Christianity is the dominant religion, with many Irish travellers being practising Roman Catholic. The Evangelical movement is also gaining followers among gypsy and traveller communities.

- ¹ http://www.gypsy-traveller.org/wp-content/uploads/10_06_09%20DV%20leaflet.pdf
- ² <https://travellermovement.org.uk/about/gypsy-roma-traveller-history-and-culture>
- ³ <https://www.fairhealth.org.uk/training/gypsytraveller/>
- ⁴ https://travellermovement.org.uk/advocacy-and-support-publications?download=5:0&attachment_id=10&download=5:0&attachment_id=10
- ⁵ <https://travellermovement.org.uk/advocacy-support/lgbt>

Other sources

http://www.gypsy-traveller.org/wp-content/uploads/gypsies_travellers.pdf
<https://www.gypsy-traveller.org/wp-content/uploads/2018/05/Research-on-learning-disabilities-in-gypsy-traveller-communities-May-2018.pdf>

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Activity 33 - Individual needs, including culture, gender, age

Case study and meet

Kizzy is 25 years old and has been discharged home from hospital following a miscarriage at 14 weeks gestation. She was admitted as an emergency following a heavy bleed and cramps. She lives in a caravan at the gypsy traveller site 10 miles outside the town.

Kizzy is married and has two children at home, aged five and three. While she was in hospital, her mother and aunts cared for the children.

While in hospital, the medical and nursing staff noticed Kizzy had several bruises of different ages on her body and were suspicious that her miscarriage was a result of domestic violence. However, Kizzy insisted on being promised to register at the local GP surgery as soon as she's able to do so.

Read the case study above and the attached information page.

Imagine you are a care assistant at the GP surgery and have been asked to meet Kizzy. She comes to the surgery and help her register. Before you meet her, you want to make a plan in which you could meet her individual needs and support her.

Action	How this will support

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Activity 33 - Individual needs including culture, gender, age

Extension activity: case studies of people living in gypsy traveller communities

Read the case studies below and answer the question attached to each one. Use the information page to help you with your answers.

Age

Arthur is 72 years old. He lives alone in a caravan, with his daughter and her family nearby. Over the last four years, he has become progressively disabled with osteoarthritis, now finding it difficult to get in and out of his trailer almost impossible. His daughter and her family are able to do much more for him.

Question: Imagine you are a community nurse attached to the local GP surgery. What advice would you give **Arthur** and his family?

Answer:

Disability

Duke, aged 12, lives with his parents and younger siblings in a caravan, with both his parents having a learning disability.

Question: Imagine you are a teaching assistant in **Duke's** school. How could you meet his learning needs?

Answer:

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Culture

Naomi and Cindy are a lesbian couple who live on the same settled gypsy travel site. They live in separate trailers but want to get married and live together, preferably on the same site as the other families nearby.

Question: Imagine you are a community nurse attached to the local GP surgery. How would you ensure Naomi and Cindy's needs are met?

Answer:



Religion

Penny, aged 76, slipped on the steps of her caravan in icy weather and fractured her hip. This meant she had to be admitted to hospital and have a hip replacement. Penny is a devout Christian and is very anxious about not being able to attend Mass on Sundays.

Question: Imagine you are a nurse on the ward and responsible for Penny's care. How would you ensure her religious needs are met?

Answer:



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Activity 34 – The purpose and aim of care for outcomes to be achieved and actions to be taken

Teacher notes

Plenary Activity: Case study and action	
Aim of the activity	To give students an opportunity to apply their knowledge and understanding of the care system.
Teacher's instructions	Put students into groups of 2–4. Ask them to read the case study and complete the table to identify the aim or purpose of care, the outcomes to be achieved and the actions to be taken. When ready, discuss student responses using the possible answers.

Possible answers

Purpose/aim of care	Outcomes	Actions to be taken
<i>Financial independence</i>	Managing his Personal Independence Budget (PIB)	Patrick's parents and his support worker should be able to keep track of his spending. He should be able to move out.
<i>Independence in activities of daily living</i>	Help with daily living: shopping, cooking, cleaning, laundry, using public transport, paying bills, etc.	Patrick's support worker and parents will help with these. It's important he learns how to do these on his own.
<i>Enable Patrick to take part in continuing professional development</i>	Help at college where Patrick can do his food hygiene course	Patrick, his parents, his support worker and the college ensuring the college knows his needs in order to complete the course.
<i>Maintain independence through employment</i>	For Patrick and his employer to feel he's able to carry out his duties at work and be a valued team member	Patrick's support worker could visit the employer to help by talking to Patrick, his employers and his support worker. Any arising should be dealt with as quickly as possible so he can remain employed.
<i>Live independently of family</i>	Finding a suitable place for Patrick to live	Patrick's parents and his support worker should help him find somewhere suitable to live and help with the process, such as references, deposit and rent.

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Activity 34 – The purpose and aim of care for an individual, and actions to be taken

Case study and action

Patrick is 19 years old and has a moderate learning disability. At the moment, he lives at home with his parents but is keen to move to his own home and to have a job so that he can achieve independence. His parents offered a job working in a local café as a kitchen assistant, helping with preparing meals and washing up. His future employer has agreed to pay for Patrick to do his basic food hygiene course at the local college.

Patrick knows that he finds some aspects of daily life challenging and that he would need support in his independent living, especially with shopping, cooking and cleaning. While he's excited at the prospect of starting his job, he's also quite anxious to manage in the workplace.

Patrick already receives a Personal Independence Budget and he and his parents are to have a further assessment once he's moved out, to ensure he has enough benefit income to support workers, housing and so on.

Read the case study above. Imagine you are Patrick's support worker. You want to ensure that the support Patrick will need to enable him to fulfil his ambition, so that you can discuss it with his parents.

Use the table below to help you identify the aim of care or support, the outcomes needed. One row has already been started. You may want to go on to a second page if you need more space.

Purpose/aim of care	Outcomes	Actions
Financial independence	Managing his Personal Independence Budget (PIB)	Patrick's parents and support worker to help him so that he's able to manage his PIB. He should learn to do this.
Independence in activities of daily living		
Enable Patrick to take part in continuing professional development		

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Activity 35 – Overcoming potential barriers

Teacher notes

Plenary Activity: Case study and email	
Aim of the activity	To give students an opportunity to apply their knowledge and
Teacher's instructions	Put students into groups of 4. Ask them to read the case study and then complete the email using the scaffolding guidance given. When ready, discuss student responses using the possible answers.

Possible answers

Barrier/issue	How it could be overcome
<i>Language – Weronika and her family speak very little English.</i>	The school could provide additional support in the classroom and encourage her to speak English. The hospital and GP surgery could provide a translator and find a translator who can attend with them.
<i>Lack of income – factory workers earn a minimum wage. Rent, living costs and transport in UK are all expensive.</i>	The family could find a befriender from the local community who may be willing to help out by giving them a lift to the hospital. The expense of using public transport.
<i>Geography – the hospital is a long way from where Weronika and her family are living.</i>	The hospital could provide appointments at a time that reduces the need to travel so far. The GP surgery could be asked to take on the role of the hospital, so that at least she would be seen regularly if she can't get to the hospital.
<i>Psychosocial – Weronika is shy and doesn't make friends easily. She is from a different country and doesn't want to fit in. She may be choosing to behave like them and ignore her own needs in an attempt to fit in.</i>	Weronika's form tutor and school nurse could talk to her and explain how important it is that she makes friends. She could be encouraged and asked to support her friends by not eating sweets or having fizzy drinks with her but offering water as an alternative.

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Activity 35 - Overcoming potential barriers

Case study and email

Weronika is 14 years old and moved to the UK from Poland two months ago. Her parents have both got jobs at a factory in a small town, 40 miles from the main county hospital.

Weronika knows very little English. She has already made friends with a group of girls in her year at school and wants to be able to take part in all the activities.

Weronika has been ill recently, losing weight, passing out, having a constant thirst and needing to visit the toilet several times a day. Tests at her GP surgery and the hospital show that she has type 1 diabetes, so she has to learn to self-care and maintenance of her diabetes.

At school, however, she finds it easier to do as her friends do and eat sweets and her diabetes isn't very well controlled.

Her family have a very limited income, they don't have a car and they hadn't expected to attend the main county hospital so often. This makes it hard for them to attend all the appointments and they have missed several.

Read the case study above.

Imagine you are the school nurse in Weronika's school.

You have received an email from the hospital diabetic nurse, who is concerned that Weronika is not attending her hospital appointments and that when she does go, her records show worryingly high blood sugar levels.

In the box below, answer the nurse's email, explaining Weronika's situation, the barriers she is facing here in the UK and what could be done to support her. Go on to a second page to write your answer.

To: Hospitaldiabeticnurse@unreal.com

From:

Subject:

Dear Nurse,
Weronika's situation...

Barriers faced by Weronika and her family...

What could be done to support her...

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Activity 36 – Professional responsibilities

Teacher notes

Starter Activity: Keyword paragraph	
Aim of the activity	To give students an opportunity to refresh their knowledge about professional responsibilities by writing a summary paragraph using the vocabulary from the text.
Teacher's instructions	<p>Individually or in pairs, students should write a paragraph to 'Explain professional responsibilities'.</p> <p>Give students 5–10 minutes to write their summary paragraph. Mark their answers.</p>

Answers

Possible paragraph:

Care values form the basis of all care and **professional** healthcare workers have a duty to deliver care with these in mind. Providing **personalised care** that gives the service user **empowerment** as possible is central and good **communication** skills are essential. Maintaining **confidentiality** and **safety**, treating people with **respect** and **dignity** as possible.

Accept other suitable paragraphs with all keywords used.

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Activity 36 – Professional responsibilities

Keyword paragraph

Use the keywords to answer the following.

Explain what is meant by professional responsibilities.

Words to use:		
Confidentiality	Confidentiality	
Choice	Dignity	
Communication	Empowerment	
Independence	Safety	Per

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Activity 37 – Advantages and disadvantages of different types of treatment

Teacher notes

Plenary Activity: case study and decide	
Aim of the activity	To give students an opportunity to apply their knowledge and understanding of different types of treatment to a case study.
Teacher instructions	<p>Put students into groups of 2 – 4. Get students to read the background information and case study information about Steven (five minutes).</p> <p>Then students should write the advantages and disadvantages of each replacement, and make a final decision for Steven.</p> <p>When ready, go through and discuss student responses.</p>

Answers

<i>Advantage of a newer design ankle joint replacement</i>	<i>Disadvantage of a newer design ankle joint replacement</i>
Less likely to fail in a few years' time	More expensive than old replacement
Need for less pain relief medication – good for the NHS and Steven	Will be advised to stick to cycling and walking
Means Steven would be able to lead a normal, active life	The cost of the surgery, the physiotherapy care and the physiotherapy time, regardless of the type of replacement
Final decision	
Steven should have the newer design ankle joint replacement as it would enable him to lead an active, busy life and carry on with the NHS in the long term.	

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Activity 37 - Advantages and disadvantages of different

Ankle joint replacements

In recent years, joint replacement surgery has become more advanced and ankle becoming more common. Older types are less expensive and are especially suitable for people likely to be very active. For an elderly person, this could be very useful as it could help them remain independent in their home for much longer, which would save the NHS and social care costs in the long term.

However, older types wear out after a few years and need replacing, making them less suitable for people in middle adulthood. Obviously, having to replace an ankle replacement is considerably more expensive, as well as keeping a service user out of the workplace, if they're on sick leave, the cost of pain relief medication, staff time and of an individual being in hospital occupying a bed must also be taken into account.

More advanced ankle replacements have been developed but they are considerably more expensive than the older types and it's cheaper for the hospital to insist the surgeons only use the older types.

Both types of ankle replacement carry risks of failing, especially if the individual carries out a lot of high-impact exercise, such as running. Many orthopaedic consultants advise their patients to take up lower-impact exercises, such as cycling and walking.

Ankle joint replacements are common but they don't provide long-term

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Activity 37 - Advantages and disadvantages of different

Case study and decide

Steven Cheung is a 45-year-old PE teacher at a secondary school and a keen sportsman. In his spare time he enjoys playing squash, cycling and running and has taken part in all these activities since he was a teenager.

When Steven was 23, he fractured his right ankle when he tripped over during a half-marathon. The injury healed well and one year later he was back to normal and didn't have any further problems.

Over the last two years, however, Steven has noticed his right ankle has been swollen, stiff and painful. He found it hard to run or play squash because of the problem and visited his GP, wondering what the problem was. It became so bad he found he was unable to work and has been off sick for a month, unable to walk very far. He is also having to rely on very strong painkillers, which are liable to damage his stomach lining and his liver if he uses them for too long.

Steven's GP referred him to an orthopaedic consultant at the hospital, who carried out an X-ray.

These showed Steven has developed severe osteoarthritis in his ankle. The consultant prescribed painkillers and steroids for his ankle but this has had little effect and the consultant has now said joint replacement.

The question the consultant has to consider is which type of ankle replacement. The newer design is much more expensive than the older one. The hospital is very short of money and all surgeons to choose the older option whenever possible. However, the consultant believes the newer design is a better option and has to explain why to the hospital managers.

Read the case study above and the information page on ankle replacements.

Weigh up the advantages and disadvantages of the more expensive type of replacement in the table below. The first one has been started for you.

When you have finished, you must reach a conclusion about whether you agree with the consultant's recommendation.

Advantage of a newer design ankle joint replacement	Disadvantage of a newer design ankle joint replacement
Less likely to fail in a few years' time	More expensive than older design
Final decision: Steven should have....	

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Activity 38 – Scheduling and timescales for achievement

Teacher notes

Plenary Activity: Case study and respond	
Aim of the activity	To give students an opportunity to apply their knowledge and understanding of treatment to a case study.
Teacher's instructions	Put students into groups of 2–4. Ask them to read the case study and then continue to write suggestions to the issues identified. When ready, go through and discuss student responses.

Answers

Issue	Response and possible solution
Rate of recovery	<ul style="list-style-type: none"> Strokes take a long time to recover from and, for some, recover their lives. Suzanne will probably always have a degree of paralysis in her right arm and leg. She will help her get as much function back as possible and then she will find ways of managing independently at home. Suzanne will have to be patient. Her GP and nurses at the hospital will all be very willing to discuss this with Elaine and Suzanne. Perhaps the physio and OT could set small milestones for achievement. For example, being able to walk to the bottom of the garden in 10 weeks, being able to make a fist with her right hand after eight months. It's possible that Suzanne's impatience could be worse than her physical disability as a result of the stroke. Again, this is something to discuss with Suzanne and Elaine.
Appointment times	<ul style="list-style-type: none"> Communication is the key here, on both sides. Suzanne and Elaine need to talk to the hospital and GP surgery to see what can be reached. Perhaps appointments could be arranged for the end of the morning, so that Elaine wouldn't have to take a whole day off work and her children at the childminder as she usually does for work. Consider the possibility of at least some appointments taking place at the hospital instead of having to travel so far.

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Activity 38 – Scheduling and timescales for a

Case study and respond

Suzanne is 78 years old and is recovering from a stroke that has left her with limited use of her left hand. Her speech has been affected but she is able to swallow and considers that she's been very lucky 'they' isn't more severely affected.

Although Suzanne is making progress in her recovery, she is a very impatient person and she should be fully recovered and back to her old busy and active lifestyle within a few weeks.

As Suzanne is unable to drive, she is having to rely on others to take her to appointments and the hospital. The physiotherapist and occupational therapist have been making

Suzanne's daughter, Elaine, who lives nearby, has been taking her to appointments, a teacher, with small children to care for, and relies on childminders to care for the children. Suzanne is telling her daughter that her progress is too slow, that the appointments that she shouldn't have to go.

Read the case study above.

Imagine you are a practice nurse at the GP surgery. You have received an email from Elaine asking about the rate of her mother's recovery and if the visits to the hospital and as they're always at such an inconvenient time. In response, you have arranged a meeting with Elaine, which you're planning to discuss her concerns and agree to help with some workable suggestions.

Write your suggestions in the table below. Some suggestions have been started for you. Go on to a second page if necessary.

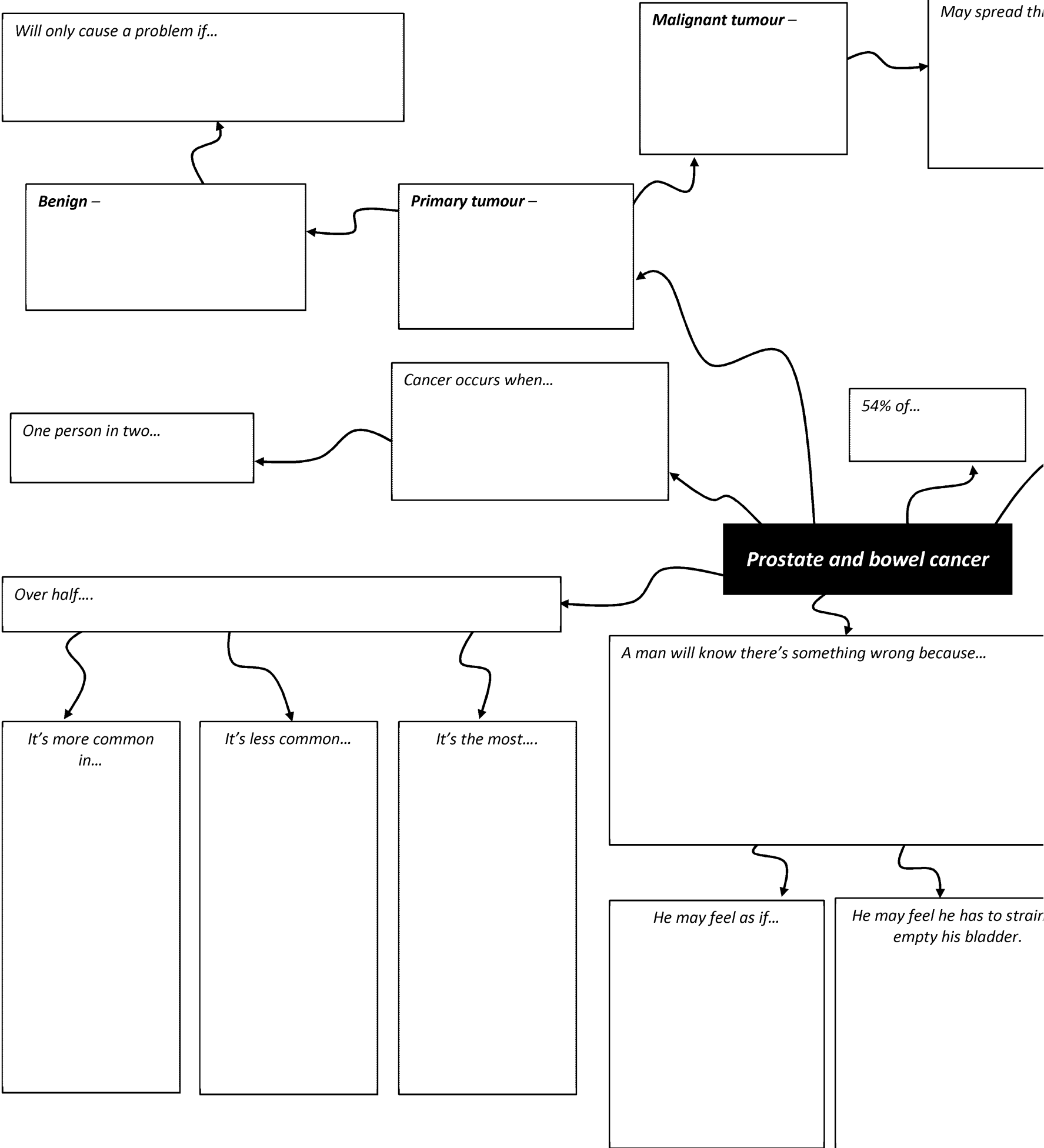
Issue	Response and possible solutions
Rate of recovery (Hint: think of physical, intellectual, emotional, social)	<ul style="list-style-type: none"> Strokes take a very long time for recovery. For some people it can take up to a year. Set small targets for achievement, such as making a cup of tea.
Appointment times (Hint: think about Elaine's other commitments. How can you work around these?)	<ul style="list-style-type: none"> Importance of communication

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Appendix 1: Activity 7 Mind Map (A3)

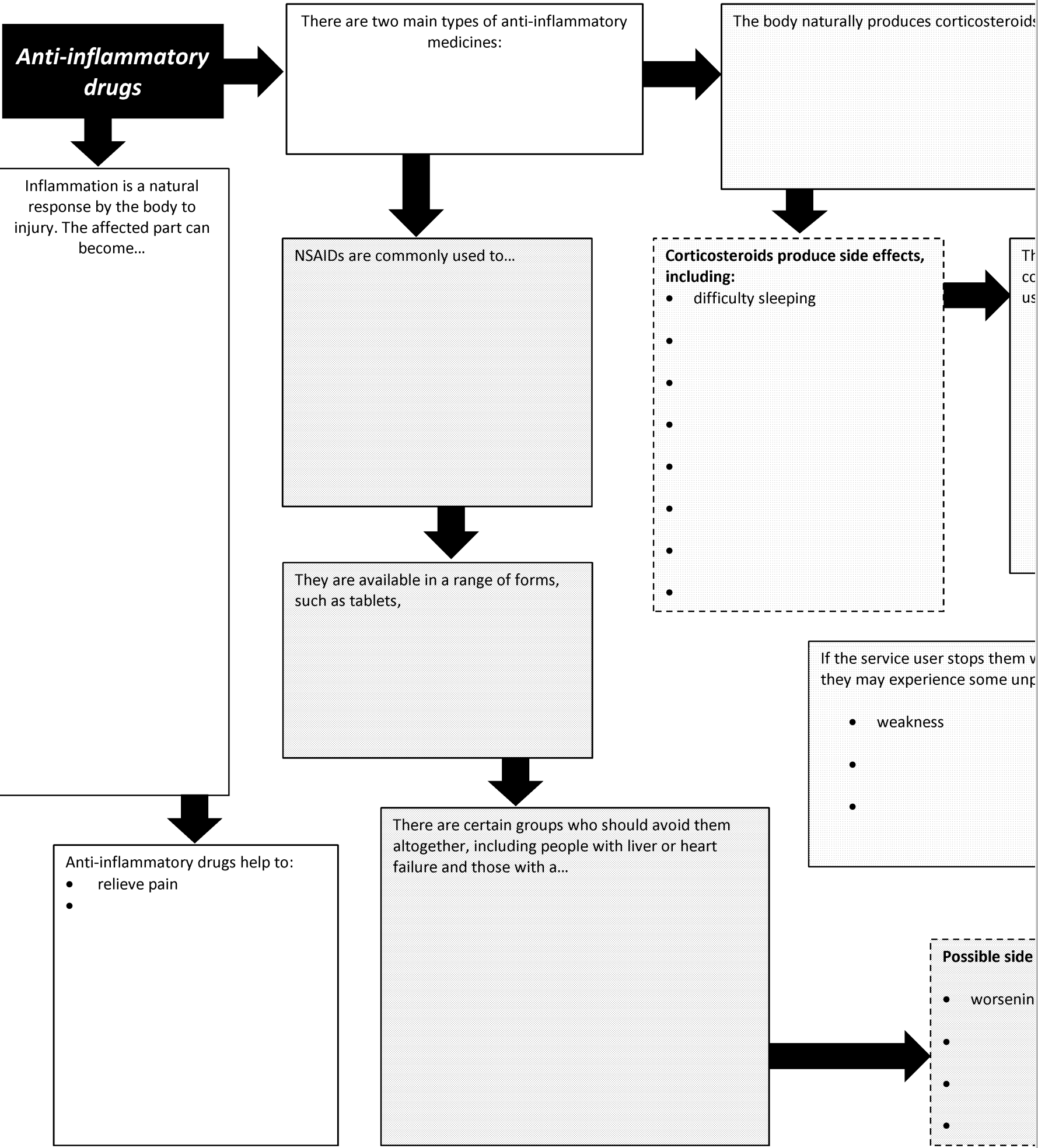


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Appendix 2: Activity 19 Mind Map (A3)

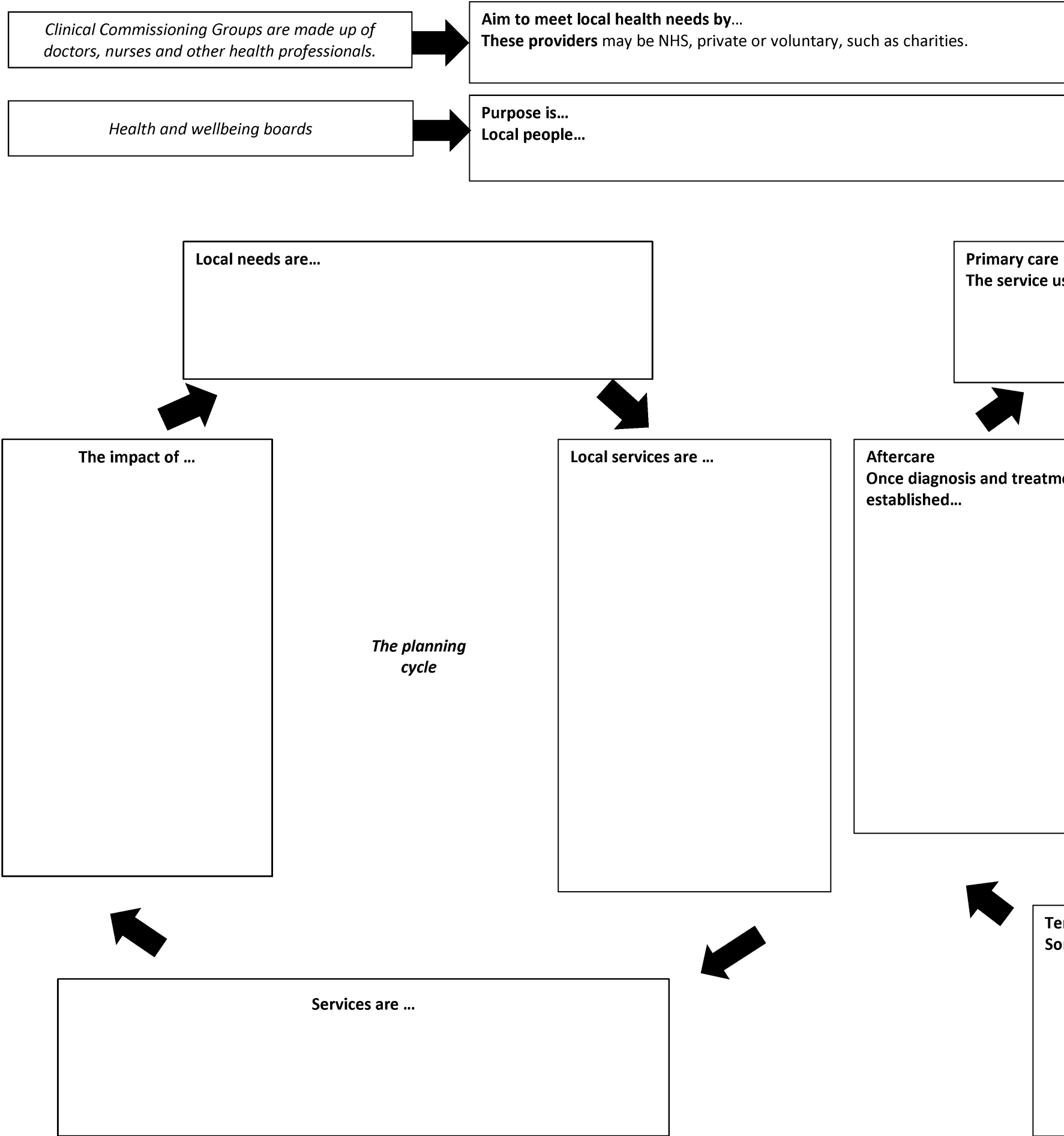


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Appendix 3: Activity 32 Mind Map (A3)



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