

ADAPT THIS FOR YOUR OWN PRESENTATION

Training module

Teaching about **physical health and fitness**

Part of: Physical health and mental wellbeing

[YOUR NAME, YOUR SCHOOL]

Primary

Secondary

November 2020

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About this training module

Subject leads can use the adaptable slides and ‘**activities and templates for trainers**’ section at the end of this module to help shape training sessions for teachers.

This non-statutory training module supplements [the statutory guidance](#) on teaching about **physical health and fitness**, which schools should read in full.

Schools can choose whether and how to follow or adapt this training module and should refer to the [Early Career Framework](#) for pedagogical guidance.

What you get out of today

By the end of this training you should:

- know what is included in the statutory guidance
- know some key knowledge and facts to cover as part of this topic
- have strategies to deal with questions that come up in class
- feel more confident teaching about **physical health and fitness**

Teaching the new curriculum

Related topics

Physical health and fitness is closely related to the [physical education programmes of study](#) as well as to the modules:

- health and prevention
- healthy eating
- mental wellbeing
- intimate relationships including sexual health

Therefore you should:

- **consider thematic links** across key topics and the whole school when planning and delivering lessons
- find ways to **link knowledge and vocabulary** across topics

Physical health and fitness support at [school name]

Our leads

[Names, contact details]

Our policies

[Add details - e.g. relevant school policy]

Specialist support

[Add details - e.g. providers school already works with]

Other information

[Add resources]

Teaching about physical health and fitness at [school name]

Ways in which we already teach about **physical health and fitness** at our school:

- [Add details]
- [Add details]
- [Add details]

Primary and secondary teaching

Some slides in this training have a **Primary** or **Secondary** label to indicate that the material is usually first introduced in that phase.

STATUTORY GUIDANCE

Schools have flexibility to design and plan age-appropriate subject content. (p31)

Using your knowledge of your pupils and school community you can:

- introduce secondary content in primary with pupils who need it and are ready
- teach the primary content in early secondary lessons to pupils who need to build knowledge before secondary content is taught

Pupils with SEND

You will need to **plan lessons to allow all pupils to access and practise the core knowledge**, using your expertise as you normally would.

You might want to link lesson outcomes with statutory 'preparing for adulthood' outcomes for those with an education, health and care (EHC) plan. (See [SEND code of practice](#), section 8.)

STATUTORY GUIDANCE

In special schools and for some SEND pupils in mainstream schools there may be a need to tailor content and teaching to meet the specific needs of pupils at different developmental stages. As with all teaching for these subjects, schools should ensure that their teaching is sensitive, age-appropriate, developmentally appropriate and delivered with reference to the law. (p15)

Safeguarding

Safeguarding (1)

Pupils may be affected by issues discussed in lessons.

Let your designated safeguarding lead or deputy and any other relevant staff, such as pastoral leads, know what you are teaching. This will enable them to identify and speak to relevant pupils, especially those who they know may have been directly impacted by issues covered in the lessons and those with adverse childhood experiences.

Teachers may need to deal with disclosures or concerns (e.g. of abuse or offending behaviour) in a way that safeguards pupils in line with school policies, especially the child protection policy.

Trusted adults

Within this module we have used the term **trusted adult**.

A trusted adult will generally be someone who children feel comfortable to turn to for help. Obvious examples include family members, teachers and doctors.

It will be important when teaching this topic, and any other relevant topics, that teachers explore this concept. Pupils should be comfortable and capable of identifying who their trusted adults could be, both within their families and wider circles.

Ground rules

Create class ground rules

Clear class ground rules can help when teaching about sensitive topics. They also support confidentiality and safeguarding of pupils.

Good practice is for ground rules to be:

- **discussed** and understood by all
- **clear** and practical
- **modelled** by the teacher
- **followed** consistently and enforced
- **updated** when needed
- **visible** in lessons (for example, posters)

Example ground rules

Respect privacy. We can discuss examples but do not use names or descriptions that identify anyone, including ourselves.

Listen to others. It is okay to disagree with each other, but we should listen properly before making assumptions or deciding how to respond. When disagreeing, challenge the statement not the person.

No judgement. We can explore beliefs and misunderstandings about a topic without fear of being judged.

Choose level of participation. Everyone has the right to choose not to answer a question or join discussion. We never put anyone 'on the spot' (no personal questions or pressure to answer).

Primary curriculum

Active lifestyles

Active lifestyles in childhood (1)

Teach that an active lifestyle requires regular **moderate to vigorous physical activity**.

Moderate intensity activities (e.g. brisk walking, cycling, riding a scooter) make us breathe faster, our heart rate increases and we begin to feel warm. **We are usually able to talk but not sing while doing them.**

Vigorous intensity activities (e.g. running, swimming fast, competitive sport) require a large amount of effort, resulting in a much faster heart rate and rapid breathing. **They usually make it difficult for us to talk without pausing.**

STATUTORY GUIDANCE

Know the characteristics and mental and physical benefits of an active lifestyle.

Active lifestyles in childhood (2)

Explain that physical activities can strengthen:

- **our muscles** by using all of our major muscle groups during the activity
- **our bones**, by stimulating bone growth and repair

Teach examples of activities that strengthen muscle and bone, including jumping, hopping, skipping, running and cycling.

Explain that when we are very active our muscles can ache and need periods of rest to recover but that this is normal and healthy.

STATUTORY GUIDANCE

Know the characteristics and mental and physical benefits of an active lifestyle.

Measuring fitness

Explain to pupils that **heart rate** is measured by the number of times the heart **beats per minute (bpm)**.

We can measure heart rate using a heart rate monitor or counting the pulse at our neck or wrist for 1 minute.

The **average heart rate** for children between the ages of **4 to 10 years** varies:

- 70 bpm to 107 bpm when fully resting from physical activity
- 105 bpm to 150 bpm during moderate/vigorous physical activity
- 147 bpm to 182 bpm during vigorous activity

STATUTORY GUIDANCE

Know the characteristics and mental and physical benefits of an active lifestyle.

Benefits of physical activity (1)

Explain that regular, moderate to vigorous intensity physical activity **strengthens the heart muscle**.

This improves the heart's ability to pump blood to the lungs and around the body. This results in more **blood** flowing to the muscles and organs, providing them with **oxygen and energy**.

As the heart and lungs grow stronger and more efficient, the body can be **more active for longer**.

STATUTORY GUIDANCE

Know the characteristics and mental and physical benefits of an active lifestyle.

Benefits of physical activity (2)

Teach that an active lifestyle can help:

- **build muscles** to make people stronger and faster
- **improve balance** and **coordination** to perform tasks, such as balancing, catching and throwing
- **strengthen bones**, as bones are living tissue and respond to physical activity by becoming stronger
- **maintain a healthy weight** when combined with a healthy diet

Related module: healthy eating

STATUTORY GUIDANCE

Know the characteristics and mental and physical benefits of an active lifestyle.

Benefits of physical activity on mental health (1)

Explain that physical activity can:

- improve **mood**, through the release of hormones (**endorphins**) in the brain which can produce a sense of wellbeing and reduce negative moods
- aid **concentration, attention span** and **cognitive function** (our mental abilities) through increased blood flow and oxygen to the brain, and by causing new brain cell growth
- improve **academic achievement** through better brain performance

STATUTORY GUIDANCE

Know the characteristics and mental and physical benefits of an active lifestyle.

Benefits of physical activity on mental health (2)

Explain that physical activity can help:

- increase **self-esteem** and enable people to feel more **confident** in their abilities and appearance
- improve **sleep** due to physical tiredness and the release of chemicals in the brain that aid sleep
- build **resilience** within ourselves, e.g. learning how to persevere to complete a task
- **support and reinforce friendships** (e.g. walking with friends, being on a team)

Related module: [mental wellbeing](#)

STATUTORY GUIDANCE

Know the characteristics and mental and physical benefits of an active lifestyle.

Physical activity in the daily routine

Teach examples of physical activity that pupils can get involved with, including at school. For example:

- **cycling**, or a brisk walk to and from school
- **games** that require pupils to be physically active at lunchtime
- physically challenging **PE lessons**
- organised **extra curricular sport** and competition events

Teach about the benefits of [active mile initiatives](#), which are where primary schools have a daily **15 minute period** of activities such as **brisk walking** or **jogging**.

STATUTORY GUIDANCE

Know the importance of building regular exercise into daily and weekly routines and how to achieve this; for example walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise.

Physical activity in the weekly routine

Make pupils aware of how they can incorporate physical activity into their lifestyle and how it can become a family activity. For example:

- **weekly athletics or team sports** (e.g. after-school clubs)
- **regular swimming, running or cycling** as a family

Explain that longer walks can be a way for people to increase their fitness levels if they need to do so before starting more vigorous activities.

STATUTORY GUIDANCE

Know the importance of building regular exercise into daily and weekly routines and how to achieve this; for example walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise.

Understanding how to succeed

Explain that we are likely to succeed in being regularly physically active if we:

- enjoy the activity we take part in - **enjoyment is key** to maintaining regular physical activity
- involve our **family, friends or carers** in the activity
- **join a club**, e.g. a sports or activities club

Explain that some people find that if they persevere with a new activity for a period of time (e.g. 30 days) they feel they have formed a habit. This can make it easier to keep doing the activity over time.

STATUTORY GUIDANCE

Know the importance of building regular exercise into daily and weekly routines and how to achieve this; for example walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise.

Being inspired

Consider incorporating inspiring examples of physical achievement from wide-ranging contexts, such as:

- Gertrude Ederle, first woman to swim the Channel
- Tenzing Norgay and Sir Edmund Hillary, first people confirmed to reach the summit of Mount Everest
- Sir Roger Bannister, first confirmed to run a sub-4-minute mile
- swimmer Mike Kenny, MBE, winner of 16 gold medals and 2 silvers over 4 Paralympic Games
- double Olympic champion boxer Nicola Adams

Examples of how individuals have contributed to the success of their team can also be explored.

STATUTORY GUIDANCE

Know the importance of building regular exercise into daily and weekly routines and how to achieve this; for example walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise.

Finding activities we enjoy

Encourage pupils to be open to a range of physical activities, ensuring examples are inclusive, for example:

- individual and team activities (e.g. walking, cycling, team games)
- wheelchair sports (e.g. racing, tennis, basketball)
- sailing and water sports such canoeing
- dance

Explain that it is ok for a new activity to feel challenging. For example, many have used NHS Couch to 5K or their local Parkrun to build fitness and achieve a distance they previously felt was not possible for them.

STATUTORY GUIDANCE

Know the importance of building regular exercise into daily and weekly routines and how to achieve this; for example walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise.

Risks of an inactive lifestyle

Health risks of inactivity (1)

Teach that an inactive lifestyle involves little moderate or vigorous physical activity. Explain that an **inactive lifestyle**, combined with an unhealthy diet, can lead to [obesity](#). This is because the body is taking in more calories than it is burning, storing excess calories as fat.

Explain that obesity can raise the risk of [type 2 diabetes](#) - a lifelong condition requiring regular medication and lifestyle changes.

Explain that it can also increase the risk of bone injury or breaks later in life. This is because bones are strengthened by high-impact physical activity, and being inactive results in **weaker bones**.

STATUTORY GUIDANCE

Know the risks associated with an inactive lifestyle (including obesity).

Health risks of inactivity (2)

Explain that physical inactivity also leads to:

- a weaker **immune system**, as there are clear links between physical activity and the body's ability to fight disease
- **lower energy levels**, because exercise increases blood flow in the body and the production of endorphins, which increase energy levels
- **poor sleep**, as we are not tiring ourselves out during the day

Encourage pupils to identify when low energy or poor sleep could be the result of too little activity.

STATUTORY GUIDANCE

Know the risks associated with an inactive lifestyle (including obesity).

How and when to seek support

Tell pupils that if they are worried about their health, they should speak to a trusted adult about it as soon as possible.

Explain to pupils that it is better to **get advice from a trusted adult** rather than researching their symptoms online, as **self-diagnoses are often wrong** and cause unnecessary worry.

Explain that it is important to ask for help if we have any concerns about our mental wellbeing or physical health.

Related module: mental wellbeing

STATUTORY GUIDANCE

Know how and when to seek support including which adults to speak to in school if they are worried about their health.

Secondary curriculum

STATUTORY GUIDANCE

Schools should continue to develop knowledge on topics specified for primary as required and in addition cover the following content by the end of secondary. (p36)

Healthy lifestyles

Healthy lifestyles (1)

Teach the **characteristics of a healthy lifestyle**:

- regular moderate to vigorous physical **activity**
- a healthy **diet** (a variety of foods in the right proportions to maintain a healthy weight)
- the right amount of **sleep**
 - 6 to 12 years: between 9 and 12 hours a day
 - 13 to 18 years: between 8 and 10 hours a day

Explain how athletes (e.g. marathon runners) can build great endurance through training and that we can all improve heart health through even moderate exercise.

Related modules: healthy eating, health and prevention and mental wellbeing

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Physical activity in the daily routine

Outline ways to include regular physical activity in our lifestyle. Teach how the school can help through competitive and non-competitive activities. For example:

- **physically active** and challenging PE lessons
- extracurricular **individual activities**, e.g. athletics, running, energetic dance and **team sports** such as hockey, rugby, football
- **cycling** or **brisk walking** to school
- **jogging** or **brisk walking for** at least a mile regularly through the week

Explain that such activities can help people reach and maintain a healthy weight.

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Muscle and bone strengthening

Teach that to develop and maintain good muscular and skeletal health, some activities need to be:

- **muscle-strengthening**, working all the major muscle groups
- **bone-strengthening**, involving moderate and high-impact activities to stimulate bone growth and repair

Examples of activities that can improve strength include: **resistance training, circuit training, ball games** and **racquet sports**.

Explain that muscles may need recovery time after vigorous exercise.

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Preparing for physical activity

Teach that there are ways we can prepare our body before vigorous activity, for example by:

- **warming up** our muscles so they are less likely to be injured (e.g. by doing light aerobic movements)
- **protecting against accidents** (e.g. putting on protective gear, such as a cycling helmet)
- reducing risk of damage to our body by wearing the **correct clothing** (e.g. the right running shoes)
- **staying hydrated** (e.g. by taking a water bottle) and eating appropriately before (and after) exercise
- **cooling down** gradually afterwards and improving flexibility by stretching our muscles

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Measuring fitness

Build on what is taught in primary about heart rate.

The heart rate for a young person of 11 to 18 years will vary:

- 60 bpm to 110 bpm when **fully resting from** physical activity
- 102 bpm to 145 bpm during **moderate to vigorous** physical activity
- 141 bpm to 178 bpm during **vigorous** physical activity

Teach that an active lifestyle can improve heart health over time.

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Maintaining a healthy weight

Explain that [body mass index \(BMI\)](#) is a measure which uses a person's height and weight to calculate if their weight is healthy. For children and young people aged 2 to 18, age and sex are also taken into account.

Discuss its **limitations**, for example BMI:

- does not distinguish fat from muscle, which means that people who are very physically fit can have a high BMI (e.g. athletes)
- can be affected by changes during puberty and maturation

Related module: healthy eating

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Abdominal obesity

Explain that even if BMI indicates a healthy weight, that carrying a large amount of '**visceral fat**' around the waist (**abdominal obesity**) also raises the risk of disease.

Teach that visceral fat surrounds the liver and other organs. It releases fatty acids, inflammatory agents, and hormones that ultimately lead to higher 'bad' low-density lipoprotein (LDL) cholesterol, blood glucose, and blood pressure.

This is associated with increased risk of type 2 diabetes, [cardiovascular disease](#) and death.

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Help with weight concerns

Teach that pupils should speak to a trusted adult if they have **concerns about weight**, including if they are experiencing any related:

- physical health issues
- mental wellbeing issues

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Risks of an inactive lifestyle

Risks of an inactive lifestyle (1)

Teach that being **sedentary** combined with an **unhealthy diet** can lead to **obesity** (being overweight, with excess body fat). Obesity can severely affect a person's quality of life, mobility, and can lead to other diseases and psychological problems, such as depression and low self-esteem.

Explain that obese adults have a greater risk of [cancer](#), including cancer of the breast, bowel, womb, oesophagus (food pipe), pancreas, kidney, liver, upper stomach (gastric cardia), and gallbladder.

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Risks of an inactive lifestyle (2)

Explain that a sedentary lifestyle increases the risk of developing:

- **type 2 diabetes** - a condition that requires lifelong management, often with insulin injections several times a day, having type 2 diabetes also increases the risk of developing serious problems with the eyes, heart and nerves
- **cardiovascular disease** including atherosclerosis (fatty deposits in blood vessels), heart disease (poor functioning heart due to a blockage), and vascular inflammation (narrowing of blood vessels)

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Risks of an inactive lifestyle (3)

Teach that a sedentary lifestyle is also associated with:

- [chronic obstructive pulmonary disease](#) (COPD), a group of lung conditions that cause breathing difficulties
- [asthma](#)
- musculoskeletal conditions, e.g. lower back pain
- [mental health issues](#), such as anxiety, depression, low self-esteem
- social health issues, such as isolation

Explain that people can seek help if physical or mental health issues mean they find it hard to be more active.

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Secondary

Improving our health

Teach that many people can often improve their health and wellbeing even if they have developed a health problem. For example, someone might benefit from:

- adjusting their diet
- gradually increasing their level of physical activity

Explain that people should talk to a trusted adult or doctor before making lifestyle changes.

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Benefits of a healthy lifestyle

Benefits of an active lifestyle

Teach pupils that an active lifestyle:

- improves **cardiorespiratory fitness** by increasing the heart's capacity to send blood (therefore oxygen) to the muscles
- helps to maintain a **healthy weight** when combined with a balanced diet
- builds **muscle strength** through hypertrophy (increased size of cells) and nerve-muscle enhancement
- **strengthens bones** by building more cells and becoming more dense

STATUTORY GUIDANCE

Know the characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Mental wellbeing and activity (1)

Physical activity can also benefit wellbeing (and combat stress) by elevating levels of **endorphins**. These are hormones in the brain which transmit signals from one neuron to another.

Endorphins produce a sense of **wellbeing** and can **reduce anxiety levels, stress, depression** and **negative moods**.

Physical activity also **increases levels of dopamine and serotonin**. These hormones help regulate mood, appetite and sleep cycles.

STATUTORY GUIDANCE

Know the positive associations between physical activity and promotion of mental wellbeing, including as an approach to combat stress.

Secondary

Mental wellbeing and activity (2)

Physical activity can also benefit wellbeing (and combat stress) by:

- aiding **cognitive function** (mental abilities such as concentration and attention span)
- **supporting and reinforcing friendships** (e.g. walking with friends, being in a sports team)
- **improving sleep quality** due to physical tiredness
- increasing **self-esteem**

Encourage pupils to be aware of how they feel after physical activity. Explain that many people successfully use exercise as a way to combat stress.

STATUTORY GUIDANCE

Know the positive associations between physical activity and promotion of mental wellbeing, including as an approach to combat stress.

Secondary

Blood, organ and stem cell donation

Blood donation

Blood donation is when someone gives their blood to help in the treatment of others.

A blood **transfusion** is when someone receives donated blood, or parts of that blood, to treat:

- **conditions** that affect the way their red blood cells work - such as [sickle cell disease](#) or [thalassaemia](#)
- **cancer treatment** that can affect blood cells - including leukaemia, [chemotherapy](#) or [stem cell transplants](#)
- **severe bleeding** - usually from surgery, childbirth or a serious accident

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Blood group

Blood group is determined by the genes we inherit from our parents. There are **4 main blood groups A, B, O and AB.**

The letters relate to the presence of antigens and antibodies in the group, as the [NHS website](#) explains.

Antibodies are proteins found in plasma. They are part of your body's natural defences. They recognise foreign substances, such as germs, and alert your immune system, which destroys them.

Antigens are protein molecules found on the surface of red blood cells.

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Blood group and rhesus D antigen

Red blood cells can also have a specific antigen called rhesus D (RhD).

If you have RhD, your blood group is described as **RhD positive**.

If you do not have this antigen, your blood group is **RhD negative**.

As [NHS Blood and Transplant](#) explains: “The D antigen is the most immunogenic, meaning it provokes an immune response that makes it most likely to cause a transfusion reaction in the recipient.”

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Blood type in the population

As blood group can be either RhD positive or negative, this means there are **8 more specific blood types**, with some being far more common in the population.

- O positive: 35% of population
- O negative: 13%
- A positive: 30%
- A negative: 8%
- B positive: 8%
- B negative: 2%
- AB positive: 2%
- AB negative: 1%

Source: [NHS Blood and Transplant](#)

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Blood composition

Explain that blood is made of different components, and is often separated into:

- **red blood cells**, e.g. to treat anaemia
- **white blood cells**, e.g. to treat infections
- **platelets**, e.g. to treat leukaemia or other cancers
- **plasma**, e.g. used after blood loss

Explain that people who donate their blood will see their blood type on their donor record.

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

How blood is taken

Teach that people can donate blood from the age of **17**. At donation, 470ml of blood is taken (**less than a pint**). This is about 10% of the blood in an adult human. (The average adult has 10 pints of blood in their body).

All donated blood is **tested for type and screened for infection**. The blood is then filtered and the components separated and stored in blood banks and hospitals ready for transfusion (giving the blood to a patient).

It takes about **24 hours for the body to replenish** the donated blood volume (plasma), and **4 to 6 weeks to completely replace** the red blood cells.

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Organ donation

Teach that organ donation is when someone gives their organs for use in medical treatment (e.g. transplant) or research. A donor's organs need to be **matched** to the recipients, e.g. for blood type.

Most organ donations are made after death and include the **heart, lungs, liver, kidneys, pancreas** and **small bowel**.

Tissue (**skin, tendons, eyes, heart valves** and **arteries**) and **bone** can also be used. It is also possible to use someone's **limbs** (arms and legs).

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Organ and tissue transplant

Teach that donated organs and tissue are commonly used in transplant surgery.

Getting a transplant can:

- **save or prolong a life**
- **increase quality of life** (e.g. allow the recipient to enjoy a more active lifestyle)

Explain that it can take time to find a donor who is a good match for someone who needs a transplant.

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

First heart transplants

Teachers may want to explain how transplant surgery has developed over time from the first human-to-human heart transplant operation carried out by surgeon Christiaan Barnard on the 3rd of December 1967 in South Africa.

What is considered to be the UK's first successful heart transplant was carried out on the 18th of August 1979 by surgeon Sir Terence English. The recipient Keith Castle lived for another 5 years and helped to show people the great potential of transplant surgery.

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Organ donation after death

Over 18s

Teach that the UK has changed to an **'opt-out' system** since May 2020. This means that an adult's organs may be used when they die, unless they have recorded a decision not to donate.

Under 18s

For under 18s, the decision about organ donation is made by the parents. If someone under 18 does want their organs donated in the event of their death, they can **record their decision and tell their family their wishes**.

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Stem cell donation

Teach that stem cells are made in the bone marrow. Stem cells are able to turn into other types of cells, such as blood cells. They can be used to treat people with **blood disorders** such as **leukaemia**.

Explain that people **aged 16 to 30** can donate their stem cells. Most donations (90%) are made through a **blood donation**. The other 10% of donations are from **bone marrow**. This is a surgical procedure carried out under local anaesthetic.

The body naturally replaces stem cells in the blood in 4 to 6 weeks.

STATUTORY GUIDANCE

Know about the science relating to blood, organ and stem cell donation.

Secondary

Examples of good practice

Good practice

The following are just some of the approaches you might consider when preparing to teach about physical health and fitness.

You will need to adapt these approaches to ensure they are age appropriate and developmentally appropriate for your pupils.

Take a whole school approach

Taking a whole school approach, regular physical activity should be established across the school day, for example:

- within PE lessons, while developing children's physical literacy
- active play during break times and after school activities (sports clubs, organised games)
- having physically active, cross-curricular learning to reduce sedentary time
- when travelling to school (e.g. cycling, scootering)
- including swimming lessons

Principles of physical literacy

Use the **principles of physical literacy** to design the provision of physical activity at school.

The principles of physical literacy are to:

- develop **movement competence**
- increase **children's motivation** to move
- improve children's **confidence** when moving
- develop the **knowledge** and **understanding** to maintain lifelong physical activity **habits**

Children who are not considered to be physically literate are at a great disadvantage when trying to fully participate in physical activity sessions and/or sports.

Good practice

Good practice (1)

Enjoyment is key to forming positive habits - make activities fun and try a wide variety of activities.

Pupil voice is important - involve them in designing activities so they feel greater ownership and the provision is in line with their interests.

Activities should be inclusive and promoted - disabled children are half as likely as non-disabled children to be active.

Taking the message home

Be aware that younger children will have limited control over their routine outside of school. Encourage pupils **to take the message home**, and involve parents through **newsletters** and **homework** assignments.

Explain to parents the importance of physical activity, and that being active from a young age helps to establish an interest in **hobbies** leading to higher levels of physical activity later in life.

Active mile initiatives and alternatives

To incorporate regular exercise in the school day, many primary schools now take part in an [active mile initiative](#). This involves an active 15-minute period of brisk walking, jogging or running.

Some schools are also offering an alternative bout of exercise such as dance, fitness activities, or ball-games for those less interested in walking, jogging or running. As a non-competitive form of activity this encourages everyone to take part.

Appointing Health Ambassadors

Younger pupils may feel more comfortable speaking to young people closer to their age in the first instance. Consider developing older pupils in school as Health Ambassadors.

When developing the skills of Health Ambassadors, stress that they too must contact an adult if they are concerned about younger pupils.

The younger pupils will also need to know that Health Ambassadors are likely to share their worries with an adult but will be kept confidential between the Health Ambassador and the other adult.

Activities and templates for trainers

About these activities and templates

Subject leads can use the following templates and training activities to plan training on teaching the new curriculum topics.

You can:

- **move slides** - e.g. 'rate your confidence (before training)' - to the point in the presentation where you want to carry out that activity
- **delete slides** if you are not covering those curriculum elements at this time

Training activity:
Rate your confidence

Rate your confidence (trainer notes)

Ask your colleagues to rate confidence before and after topic training using the slides in this deck.

Before training

Ask teachers to think about where they currently fit on the scale.

After training

Ask teachers to rate their confidence again and talk about changes. You might want to repeat this activity at later check ins.

If teachers still rate confidence as low, discuss ways you can develop their subject knowledge, offer peer support etc.

Rate your confidence (**before** training)

How do you feel about teaching this topic?

Not confident at all										Very confident
1	2	3	4	5	6	7	8	9	10	

Rate your confidence (**after** training)

How do you feel now? What support/information could help?

Not confident at all										Very confident
1	2	3	4	5	6	7	8	9	10	

Training activity: Dealing with difficult questions

Dealing with difficult questions (trainer notes)

Use the following slides in your training to help teachers:

- **share concerns** about questions they could be asked by pupils
- **strategise** ways to respond to such questions

Dealing with difficult questions (1)

What would
you say?

What wouldn't you
say?

[Prepare 'difficult' questions to discuss in training or give teachers a blank version to fill with their own questions]

Follow up

Dealing with difficult questions (2)

Pupils may well ask questions because they:

- want information
- are seeking permission - “Is it OK if I ...?”
- are trying to shock or get attention
- have related personal beliefs

Remember:

- don't feel pressured or that you have to answer straight away
- don't disclose personal information - use third-person examples, say 'some people...'
- seek advice if you need it

Training activity:
How will I teach this?

How will I teach this? (trainer notes)

Use the following slides in your training to help teachers:

- **begin to plan and resource** their lessons
- **discuss and address any issues** they anticipate in the delivery of lessons

How will I teach this?

<p>How will I prepare to teach this topic?</p> <ul style="list-style-type: none">- What do I need to do?- What resources do I need?- Do I need external support?	
<p>How will I adapt to needs of pupils?</p> <ul style="list-style-type: none">- What are the challenges?- What language and concepts will pupils need support with?- Do I need additional support in the classroom?	
<p>How will I assess pupil understanding and progress?</p>	

Additional slides for structuring training

ADAPT THIS FOR YOUR OWN PRESENTATION

Any questions?

Any concerns?

What support do you need?

ADAPT THIS FOR YOUR OWN PRESENTATION

XX%

[Use this format to present your own key facts and statistics - e.g. from your local authority or own monitoring. Include the source.]