



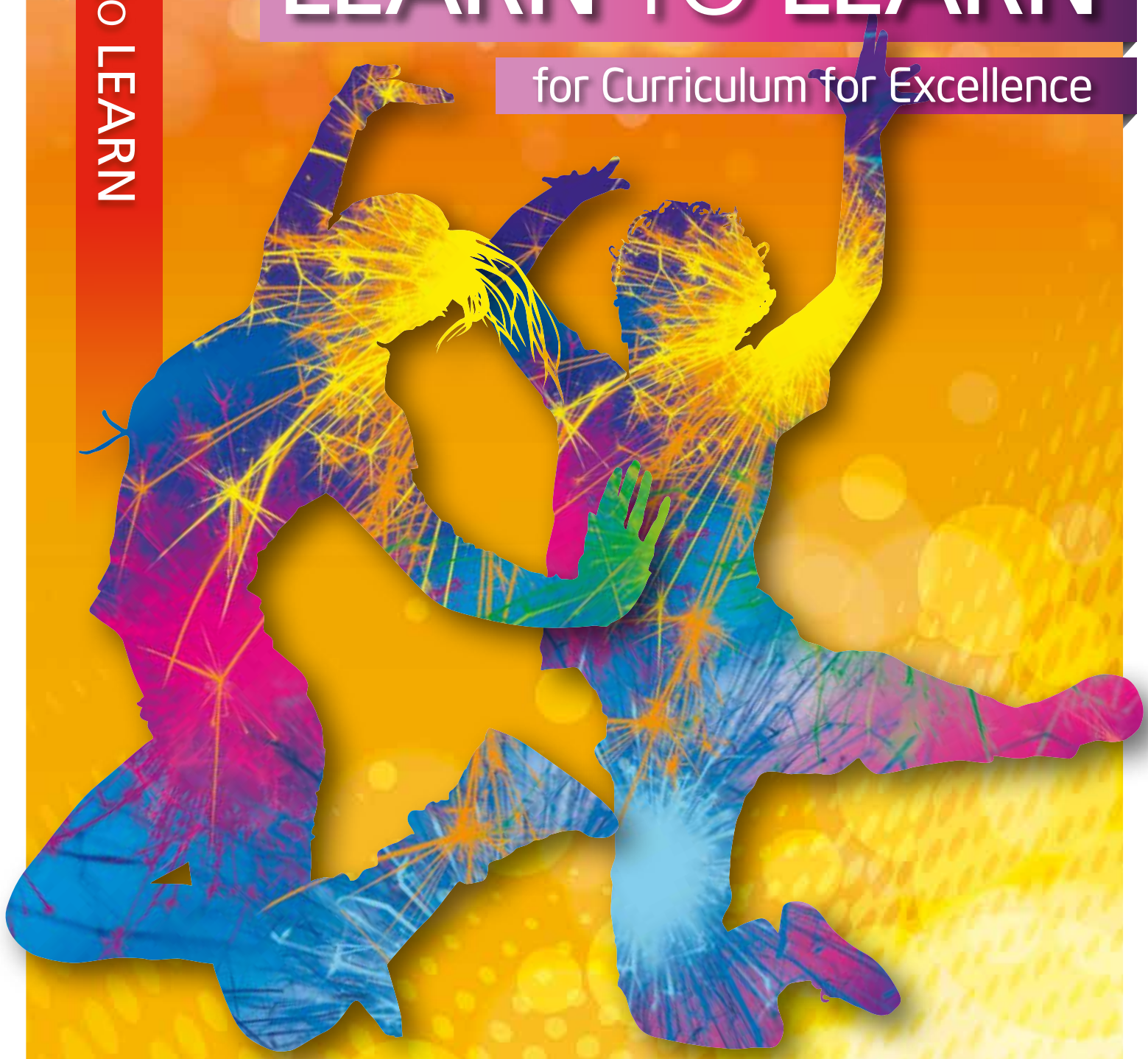
LEARN to LEARN



BrightRED Results

LEARN TO LEARN

for Curriculum for Excellence



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1 LEARNING FOR LIFE

LEARNING AS A PROCESS

This chapter will explore the basic study process. Study is a process that helps us to learn new and sometimes challenging material. It can develop our understanding and improve our ability to remember things – especially for important assessments, including exams. Success in formal assessments is often a key requirement for jobs or further courses, so it is important to know how to learn the ideas and concepts, and how to set out answers to score marks.

WE LEARN IN DIFFERENT WAYS

Your brain continues to learn as you grow. What you learn at school is only the start of your lifelong learning, and learning and **study skills** give you the ability to develop your learning processes and to adapt to a changing, developing society.

A few people are lucky enough to remember a lot of what they hear, or read, or see, but most people need to use a range of different methods to help the recall process. We are all unique and we learn and remember in different ways. **Study notes** and revision plans can be a great help – if we know how to use them. A successful **study programme** takes note of how an individual thinks and learns, then develops and practises a range of techniques that work for them.

LEARNING FOR CURRICULUM FOR EXCELLENCE

As you move through secondary school, assessments become increasingly formal to prepare you for the National 4 and 5, Higher and Advanced Higher exams you will sit in the senior years. **Curriculum for Excellence** covers a wide range of learning outcomes and uses different forms of assessment, so you have to prepare yourself by developing a wide range of study skills.

Working through this guide will help you to develop and improve your study and lifelong skills to become a **successful learner, confident individual, responsible citizen** and **effective contributor**. You will also learn **self-evaluation** and **reflective thinking** techniques which will help to improve your performance in all of your SQA assessments.

RED ARROW LEARNING TRIANGLE

As a learner, you have to be involved in your own education or it's a one-way process like the one illustrated below where the teacher is just **instructing** you, and you are not making the knowledge your own.



Education occurs when you, as the learner, are fully involved. The teacher selects interesting and exciting ways to present course materials and they inspire you to want to know more. You interact with your teacher by asking questions, giving suggestions and seeking to gain more knowledge.



This red arrow stage is when the lasting brain connections are made. This is where you, as the learner, take ownership of the knowledge, making it **your** knowledge. Reflective thinking is a key part of the 'red arrow' process.

LIFELONG SKILL

This process – the red arrow learning triangle – will be important throughout your life as you develop your work skills to meet the demands of evolving careers. The teacher will be replaced by work colleagues or people who support work-based learning, but it is the red arrow stage that will help to ensure that you have the skills to be comfortable and able to do your job as it changes with time.

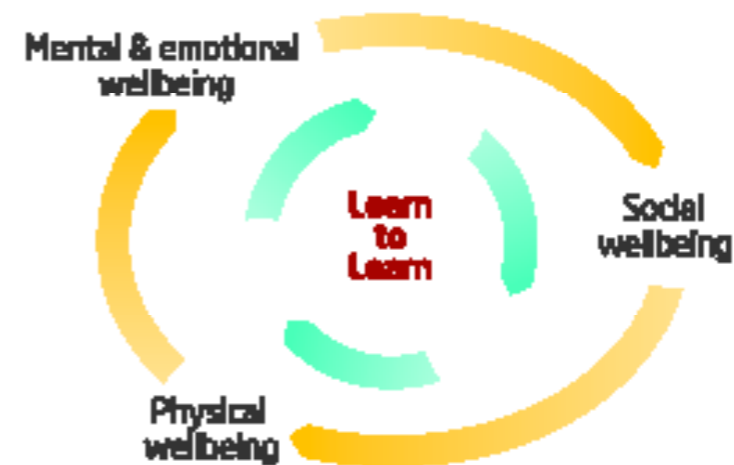
Some of you might even be doing jobs that haven't been thought about or created yet!

HOW DO I LEARN FOR EXAMS?

Learning is about thoroughly understanding **key concepts** and being able to convert that understanding into the acceptable responses required in written examinations and assignments.

Learning and studying can be a very rewarding – but also a very stressful – process. To maximise learning and minimise stress, you need to bring the components in the diagram to the right together in an organised study programme.

As well as helping you pass assignments and exams, effective study can be a major contributor towards your **health and wellbeing**.



DON'T FORGET

Use the techniques you learn in this guide to improve your study skills.

THINGS TO DO AND THINK ABOUT

Success is usually measured publicly by the results in exams, continuous assessments, project work and practical work. However, success is also a private thing. It is when you make progress and this includes the light bulb moments when everything suddenly falls into place, as well as the smaller achievements such as getting into a study routine or remembering a quote. Being aware of your achievements, big and small, helps to keep you motivated and keen to learn more.

Having confidence in your learning, and knowing that you have learned the work before you go into exams can help you to achieve mental and emotional wellbeing. Being organised will allow you to study and still leave enough time for your social activities, hobbies and your family. This, in turn, can help you feel energised, ready to study and able to meet all the other physical demands you encounter on a daily basis.

3 WHAT STUDY SKILLS AND TECHNIQUES SHOULD YOU USE?

USING THE 3RS 1



Now that you have identified your unique learning style preferences, let's get down to the nitty-gritty of learning about study techniques and how to use them to boost your study skills.

The next three chapters look at the study techniques for reviewing, remembering and recalling data – the 3Rs of study.

SOME FACTS ABOUT LEARNING

- 80–96 per cent of everything we learn is forgotten within 24 hours. Materials learned in class need to be looked at again later.
- It is as important to review as it is to learn something new. This helps to commit information to your memory.
- Reviewing is the difference between remembering and forgetting. Your study programme is vitally important.

You can address all of the above by using the simple three-stage study process – the 3Rs. It starts with you accessing information and ends with your successful performance in exams and assignments.

REVIEW

The review process has three essential stages:

- reflective thinking
- looking over classroom notes, books and homework
- making notes of key points.

Reflective Thinking

Reflective thinking involves spending a few minutes every evening thinking over what you did and identifying the keywords from each of your classes for that day. For some people, that will involve visualising or going through events, while for others it might be talking it through, either out loud or in their head. This starts to lodge more of the material in your memory.

By identifying the keywords, your brain will link them to information associated with them. For example, the keyword 'volcano' will trigger your brain to remember the shape of the volcano, eruptions and vents. By doing this, your brain starts to make its own connections between the keywords and the bank of associated information. These connections are specific to **your** brain – they are **your** connections. Once these connections are made, the information becomes **your** information and **your** learning.

Look Over

Like reflective thinking, looking over classroom notes, books and other teaching material should be done soon after the material is first introduced. This means that for homework or study, you should look over the work at least once per week for every subject. Looking at your notes and books adds to the reflective thinking process, because it covers some of the depth and detail that didn't readily come to your mind during reflective thinking. It helps to build and plug any gaps in your knowledge.

Helping your brain to make the connections between keywords and the related information makes it easier for it to recall and apply it.

Make Notes

When you have read over classroom materials, you should start to note keywords in ways that work best for you. These keywords will act as memory prompts. When your brain recognises the keywords its **system 1** (see page 14) will automatically search its memory banks for related information.

The keyword prompts can be written, but they can also take the form of **diagrams**, abbreviations and mnemonics. By using these techniques, you give the brain the information codes that it uses to make the connections. Your brain will be more stimulated if you use a range of techniques, because it will get bored and be less effective if you always use the same prompt – for example, mnemonics or bullet points.

Try saying out loud and recording the keywords, new vocabulary and drafts for oral assessments on the voice recorder of your mobile phone, or on your iPod or MP3 player. This can improve your confidence with spoken tasks.



DON'T FORGET

Your thinking style during the review stage can be auditory, visual or kinaesthetic – or a mixture of these styles.

THINGS TO DO AND THINK ABOUT

Try to get into the habit of making brief notes using **both** reflective thinking and your classroom notes.

5 REMEMBER

PLANNING YOUR STUDY PROGRAMME

REMEMBER – LEARNING NEW THINGS

Remember is the second stage in the **3Rs** process. In the remember stage, you have to make your short- and long-term memories hold all the information you gathered during the **review** stage. In this section, you will be looking at ways to prompt your brain to remember the keywords.

+ DON'T FORGET

The remember sections in the ideal study hour are crucial for learning information. See pages 28–31 to remind yourself how to construct an ideal study hour.

+ DON'T FORGET

When and where you study is an individual preference and will depend on the type of work you are doing. Learning new concepts might require a lot of concentration in a quiet room, but for other tasks you might prefer appropriate background music.

↑ TOP TIP

If you've completed your study charts, you will know that you have tried hard to learn the material, and this will give you the confidence to write good, detailed answers.

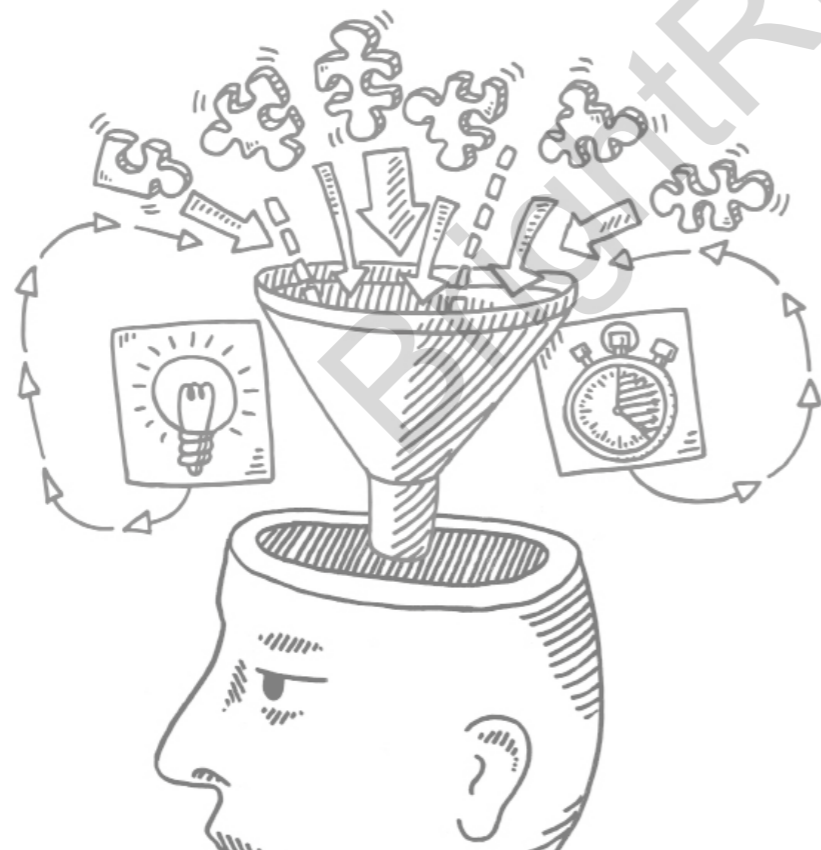
PLANNING FOR STUDY

Effective study plans will employ a range of different study skills. This is important to keep your study varied, your brain interested and to enable you to learn different types of information.

Although there are lots of different methods available for learning, it is important that you make sure you use the best methods for you. Some people can put a lot of time into their study yet not get the grades they expect. One reason for this could be that they are not effective in committing the information to their memory because they have not worked out their most effective ways of learning.

A lot of inexperienced learners simply read over their notes again and again. This may help them to remember some information, but it is not recognised as active study and may not be very effective. It may not be suitable for the person's learning style. The brain may get bored with the same method and there is no testing to check how much has been committed to memory.

You should use a study plan (see pages 32–33) as a vital tool in supporting your homework and study programme. It can be a diary or a chart on your wall or a document on your computer or phone – whatever works for you. Use it to record your homework, study, dates for assessment, test results and deadlines for handing in work.



If you are studying for certificated subjects, you should be doing **at least one hour** of homework and study five times per week. This time includes research for portfolios and added value units. Two hours per session is the optimum time to get better results and really do yourself justice. Try to work out priorities:

- Firstly, do the **homework** given out by your teacher.
- Secondly, **revise** the work you have recently covered in class, do some general revision or research for assignments.

Record what you have done in your plan. There should be no blank sessions as you should be studying or researching if you have no homework. Aim to develop a programme to cover all your subjects.

It is important to have a flexible programme which:

- takes account of your homework, study and leisure activities
- allows you to plan your study around your homework
- gives you an overview of how much time you have given to each subject
- increases your confidence when you can see at a glance how much you have done.

QUALITY OF HOMEWORK AND STUDY

Always aim to do the best quality homework and study that you can in the allotted time. Use class notes, revision guides such as **BrightRED books** and websites such as the **BrightRED Digital Zone** or **BBC Bitesize** so you know the correct subject vocabulary to use and you know that your information is accurate.

Planning how long you think the piece of work should take you is good practice for keeping to time in your tests.

Do not spend hours struggling away on a difficult piece of work. Do what you can in a reasonable time, and then talk with your teacher later, explaining what you tried to do and how long you spent on it. To be able to do this, try to do your homework as soon as possible after you get it. This will allow you time to speak with your teacher and make changes before the piece of work is due to be handed in.

HOW YOUR HOMEWORK SUPPORTS THE REMEMBER STAGE

Homework reinforces and develops your classwork and helps you to commit it to your memory. It gives you the opportunity to:

- reflect on your classwork so your brain starts to connect and categorise the information
- commit the work covered in class to your long-term memory
- do further research on topics
- practise skills and techniques
- practise for tests
- prepare for assessments.

📌 THINGS TO DO AND THINK ABOUT

Draw up your own study programme and follow it for one month.



6 RECALL

TECHNIQUES FOR RECALLING WHAT YOU HAVE LEARNED 2

DIAGRAMS AND GRAPHS

Diagrams and graphs can be extremely useful for summarising and recalling a lot of data. They also help to structure answers, as referring to the diagram helps to ensure that everything is mentioned and prompts the order of the topics.

Diagrams and graphs can be used in a number of ways:

- They can be learned and drawn in assessments to give a lot of information clearly and quickly. Diagrams and graphs in portfolios, essays and exam answers must be fully labelled.
- Labels provide prompts, ensuring that all the relevant information is included. This will help to add depth to answers and potentially gain more marks.
- Good diagrams and graphs help to show understanding of the concept or topic.

EXAMPLE

This example from *BrightRED Study Guide N5 Geography* clearly shows how useful a diagram is for answering a question.

This question is taken from the *SQA N5 Geography Specimen Question Paper*:

Question 2 - rivers and valleys

- (a) Study OS map Item A of the Dingwall area. Use the information in the OS map Item A to match the features of rivers and valleys in the table below with the correct grid reference.

Features of rivers and valleys:

v-shaped valley, meander, river flowing NW

Choose from grid references:

522623 457668 523594 435663

Use the information from the diagram and 2nd, 4th and 6th bullet points.

RIVERS

When describing a river on an O.S. map it is important to look at the *physical* (natural) features of the river and its valley. Ask yourself these questions about the river:

- Is the river in its **upper, middle or lower course**?
- What is the shape of the valley? Lots of contours suggest a **steep V-shaped valley**; few contours may suggest a **gently sloping valley** in the lower course.
- Is there land on either side without contours? If so, may be a **flood plain**.
- Can you identify river landforms (e.g. **meanders, ox-bow lakes, tributaries**, etc.) with six-figure grid references?
- What is the **name** of the river and the names of any tributaries?
- In which **direction** does the river flow?
- How deep/wide is the valley? Use the contour heights to work this out.

Diagram 1.40 Upper course river: 1:50,000 map of river.

DON'T FORGET

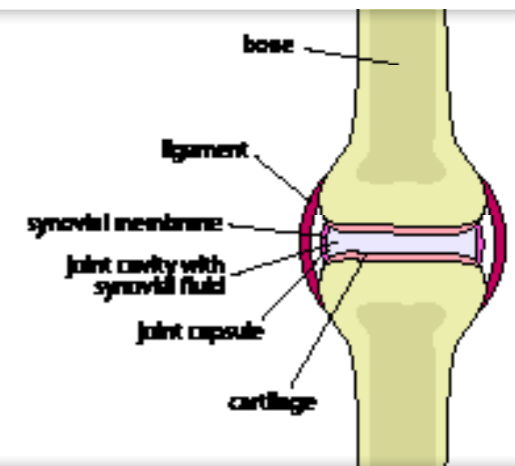
You can check your knowledge using online tests at www.brightredbooks.net

ACTIVITY

Use the **look/cover/draw/check** technique to learn the diagram and labels below, then answer the questions that follow. The bullet points at the side have been added to give more information, and are particularly useful if you are not a biology student.

Synovial joint

- Cartilage is smooth to reduce friction.
- Cartilage is spongy to absorb shocks.
- Synovial fluid is produced by the synovial membrane – reduces friction in the joint.
- Bones are held together by elastic ligaments.
- Hinge joint:
 - found at the elbow, knee and fingers.
 - permits movement in a single plane of movement (bend and straighten).



1. Use the following questions to evaluate yourself:

- Did you remember most of the labels? *Yes/No*
- Did you remember most of the picture? *Yes/No*
- Did this method work for you? *Yes/No*
- Has the diagram helped you to remember the information? *Yes/No*

2. Use the labels in the diagram – ligament, synovial membrane, joint cavity with synovial fluid, joint capsule, bone, cartilage – to answer this question:

Describe a synovial joint.

If you are a biology student, try to do this by remembering the bullet point information. If you are not a biology student, you can look at the above bullet points to help you create your answer.

3. Try the look/cover/draw/check technique again, this time using a diagram from your own notes. List the bullet points that might be needed in an answer.

THINGS TO DO AND THINK ABOUT

This process of learning from and drawing diagrams and graphs is particularly useful to visual learners. However, some answers, particularly in the sciences, will require diagrams. It is therefore important that all types of learner should be able to use this technique. It can also save time in an exam because diagrams require less writing.

Kinaesthetic learners could also benefit from imagining a diagram in their heads, then going through each part of it systematically and imagining what each part of the joint does when it is being used. This could result in the following answer:

1. Types of joint – hinge, ball and socket
2. Bones – held together by ligaments
3. Synovial membrane – synovial fluid, reduces friction
4. Cartilage – smooth, spongy

As most people use more than one learning style, **visual** and **auditory** learners could also use parts of this process.

DON'T FORGET

Labelling diagrams helps to show your depth of knowledge and the labels are key words to help you recall background information.