



THE **SIXTH FORM**  
at Southmoor Academy

# TRANSITION **TAKE AWAY**

Get a quick taste of our subjects and find out more about them before you make your choice!



# STEM

(SCIENCE, TECHNOLOGY,  
ENGINEERING & MATHS)

## Subject.....Biology

**Vision:** "Biology is the study of complicated things that have the appearance of having been designed with a purpose."  
– Richard Dawkins

**Reading:** New Scientist, or any popular science book, for example Adventures of a Young Naturalist (David Attenborough) or Brain: The Story of you (David Eagleman).

**Browsing:** [www.newscientist.com](http://www.newscientist.com)

**Listening:** Inside Science (Radio 4).

**Watching:** Any episodes of Planet Earth or documentaries by David Attenborough, Gattaca.

**Advice:** Be prepared for independent learning! Revise from the beginning!

**Summer Task:** Write a short essay (a few sides of A4) describing and explaining the route of food through the digestive system. Focus should be on the molecules themselves and how they are broken down and then absorbed.



## Subject.....BUSINESS

**Vision:** "Great things in business are never done by one person. They're done by a team of people."  
– Steve Jobs

**Reading:** Edexcel AS Business Spec @ <https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/business-2015.html>

**Browsing:** New York Times Business News

**Listening:** Profit Power Pursuit (podcast)

**Watching:** A Shark Tank

**Advice:** Business is a difficult but very interesting subject. Be ready to complete a lot of writing and research but you'll understand the news a lot more.

**Summer Task:** Create a realistic business proposal for a business of your choice. You must include:

- Description of your customer profile (age, gender, occupation, income, lifestyle interests)
- Carry out market research to help you to create a suitable product for your chosen customer profile
- Generate design ideas for your product/service
- Investigate pricing strategies, explaining your chosen strategy
- How you will promote your product/service to the market
- How you will raise finance in order to setup your business
- Staffing requirements

**Resources:**

<https://www.tutor2u.net/business/topics>

<https://www.bbc.com/bitesize/subjects/zpsvr82>



# Subject.....Chemistry

**Vision:** Every aspect of the world today - even politics and international relations - is affected by chemistry.

- Linus Pauling

**Reading:** New Scientist

**Browsing:** [www.a-levelchemistry.co.uk](http://www.a-levelchemistry.co.uk), [www.chemguide.co.uk](http://www.chemguide.co.uk)

**Listening:** Inside Science (Radio 4)

**Watching:** [www.a-levelchemistry.co.uk](http://www.a-levelchemistry.co.uk)

**Advice:** Independent study is essential! Learn more of the truth about Chemistry.

**Summer Task:** (a) State the meaning of the term electronegativity.

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(b) State and explain the trend in electronegativity values across Period 3 from sodium to chlorine.

Trend \_\_\_\_\_

Explanation \_\_\_\_\_

(c) What is meant by the term first ionisation energy?

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# Subject.....Computing Science

**Vision:** "Computer science is no more about computers than astronomy is about telescopes." - Edsger Dijkstra

**Reading:** Python for GCSE by Patrick Dawkins

**Browsing:** Computing at Schools. Littleman computer (download), Python Version 3.6 (download), Khan academy (website), Code Academy (website)

**Watching/Listening:** The digital human (Radio 4).

**Advice:** Computing is not an easy option, the course is rigorous, we will support you but you must be 100% committed.

**Summer Task:** Program a text based quiz in Python or another language of your choice, which makes use of a graphical user interface (GUI) such as Tkinter.

**Resources:** [www.codecademy.com/learn/learn-python-3](http://www.codecademy.com/learn/learn-python-3) [www.tutorialspoint.com/python/index](http://www.tutorialspoint.com/python/index)  
[www.tutorialspoint.com/python/python\\_gui\\_programming](http://www.tutorialspoint.com/python/python_gui_programming)



# Subject.....Engineering

**Vision:** The branch of science and technology concerned with the design, building, and use of engines, machines, and structures.

**Reading:** Engineering Magazine

**Browsing:** [raeng.org.uk](http://raeng.org.uk) & [engineeringmagazine.co.uk](http://engineeringmagazine.co.uk)

**Listening:** The material World (Radio 4).

**Watching:** Engineering Giants (BBC 2).

**Advice:** If you like to apply science and maths to design and make things then this is for you.

**Summer Task:** List five different engineering disciplines and outline the main roles of each.



# Subject.....Geography

**Vision:** 'The study of geography is about more than just memorising places on a map. It's about understanding the complexity of our world' – Barack Obama

**Reading:** [www.rgs.org](http://www.rgs.org)

**Browsing:** [www.nationalgeographic.com](http://www.nationalgeographic.com)

**Listening:** BBC News

**Watching:** BBC Planet Earth

**Advice:** 'What lies behind us and what lies before us are tiny matters compares to what lies within us'  
– Ralph Waldo Emerson

**Summer Task:** You need to design and carry out a geographical fieldwork investigation over the holidays and then prepare a short powerpoint or google slides presentation to demonstrate your planning and show your findings. Your investigation can be on anything at all that is geographical and can be carried out anywhere in the world (at home or perhaps a holiday destination).

HINT - read this document for some amazing tips [www.rgs.org/nea](http://www.rgs.org/nea)

Your must include the following and each must be one slide on your presentation:-

- A research question and why you chose this
- At least two primary data collection methods and why they were appropriate for your investigation
- At least two secondary data collection methods and why they were appropriate for your investigation
- Results – this must be presented with at least four data presentation methods and a description of what each show



# Subject.....Maths

**Vision:** "Every culture has contributed to maths just as it has contributed to literature. It's a universal language; numbers belong to everyone." – Daniel Tammet

**Reading:** The Num8er My5teries: A Mathematical Odyssey Through Everyday Life

**Browsing:** [www.s-cool.co.uk/a-level/maths](http://www.s-cool.co.uk/a-level/maths)

**Watching/Listening:** Dara Ó Brian's School of Hard Sums (TV show), The Story of Maths Marcus Du Sautoy (BBC TV show).

**Advice:** Ask questions, contribute, if you are talented enough to opt for Maths, you should be driven and self-motivated you will achieve!

**Summer Task:** Calculate how many Mars Bars will fit into the O2 Arena.



# Subject.....Physics

**Vision:** "No one undertakes research in physics with the intention of winning a prize. It is the joy of discovering something no one knew before." – Stephen Hawking

**Reading:** Scientific American (journal), A Brief History of Time Stephen Hawking.

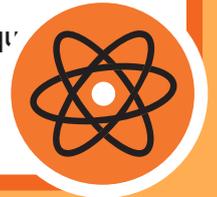
**Browsing:** [www.newscientist.com](http://www.newscientist.com)

**Listening:** [www.bbc.co.uk/iplayer/categories/science-and-nature/highlights](http://www.bbc.co.uk/iplayer/categories/science-and-nature/highlights)

**Watching:** The Wonders of the Solar System by Brian Cox.

**Advice:** Repetition is the key! Answer the questions about our weird universe! There are a lot of qu

**Summer Task:** Summarise what is meant by the Standard Model.



# Subject.....Psychology

**Vision:** "Psychology keeps trying to vindicate human nature. History keeps undermining the effort."  
– Mason Cooley

**Reading:** The Memory illusion – Dr Julia Shaw

Forensic Psychology – a very short introduction – David Canter

AQA Psychology for A-Level Year 1

**Browsing:** Milgram replication in Poland.

O.C.D. A Disorder That Cannot Be Ignored.

[www.Digest.bps.org](http://www.Digest.bps.org) is a good website to just go on and search for topics.

[www.psychologytoday.com](http://www.psychologytoday.com) is another good website to go on and use the search button.

**Listening:** All in the mind (Radio 4).

**Watching:** 12 Angry Men

**Advice:** Pick a time of day where you can get motivated to prepare for tests, write essays, and solve problems.

**Summer Task:** Use the following link to research the case study 'Phineas Gage'

- <https://www.bbc.co.uk/news/health-12649555>

Questions:

1. What happened to Phineas Gage?
2. What part of his brain was predominantly damaged? What is this function of this part of the brain?
3. How did this affect his everyday life?
4. How do you think this case study helped changed the way psychologists and scientists viewed the brain?



# Subject.....Sport

Vision: "It is really important that we promote competitive support in schools. It is very important that we recognise that has to be underpinned by good quality physical education and by getting people into patterns of exercise." – Sebastian Coe

Reading: Alex Ferguson-Up Close and Personal

Browsing: [www.bbc.co.uk/sport](http://www.bbc.co.uk/sport) [www.skysports.com](http://www.skysports.com) [www.espn.com](http://www.espn.com)

Listening: [www.bbc.co.uk/5live](http://www.bbc.co.uk/5live) [www.talksport.com](http://www.talksport.com)

Watching: Tune in to a Sports channel and watch a sport you wouldn't normally watch, what do you notice?

YouTube: 30 for 30 sports documentaries, Ronaldo: Tested to the limit

Netflix: Icarus, Free Solo, The Iron Cowboy, Generation Iron, Fittest on Earth – CrossFit games

Advice: Stick to deadlines and redraft your work constantly, read around our subject, don't be afraid to fail, success is up to you!

"There may be people that have more talent than you, but there's no excuse for anyone to work harder than you do" – Derek Jeter

Summer Task: Create a poster on the 3 energy systems – Aerobic system, Anaerobic system and the ATP-PC system.

For each one, you should include:

- Description of the system
- Fuel source
- Explain how energy is produced
- Waste products
- Energy yield
- Sporting examples that use the energy system



# The Arts & Non-Stem

## Subject.....Art

Vision: "Creativity takes courage." – Henri Matisse

Reading: The Art Book: Big Ideas simply explained.

Browsing: : [www.saatchigallery.com](http://www.saatchigallery.com) & <http://www.tate.org.uk/art>

Listening: [www.bbc.co.uk/iplayer/categories/arts/a-z](http://www.bbc.co.uk/iplayer/categories/arts/a-z)

Watching: This is Modern Art-Series (Youtube)

Advice: "One can have no smaller or greater mastery than mastery of oneself."  
– Leonardo da Vinci

Summer Task: See separate insert.



## Subject.....Drama

Vision: "Drama is life with the dull bits cut out." – Alfred Hitchcock

Reading: [www.bbc.co.uk/arts](http://www.bbc.co.uk/arts)

Browsing: [www.thoughtco.com/profile-of-sophodes-121067](http://www.thoughtco.com/profile-of-sophodes-121067)

Listening: [www.bbc.co.uk/iplayer/categories/arts/highlights](http://www.bbc.co.uk/iplayer/categories/arts/highlights)

Watching: Splendid's Antigone.

Advice: Make use of a dictionary and an encyclopaedia; they are great resources.

Summer Task:

Choose an area of theatre design: Lighting, Sound, Costume or Set. Research the stalls required in each design area.

How do designers plan their work? Select a play text.

Lighting - Choose a scene. Create a lighting plan. Draw a plan of your lighting rig.

Sound - Create a SFX we sheet for your chosen scene.

Costume – Design and draw a costume for a character.

Set- Draw your set for a chosen scene. You could alternatively make a scale model.

All designs should be annotated and where appropriate, use colour and scale .



## Subject.....English Language

Vision: "The English language is nobody's special property. It is the property of the imagination: it is the property of the language itself." – Derek Walcott

Reading: Language and Representation in Language-a student handbook Alison Ross Language and Identities Carmen Llamas and Dominic Watt.

Browsing: [www.languageatinternet.org](http://www.languageatinternet.org)

Watching: [www.teachit.co.uk](http://www.teachit.co.uk)

Advice: None of us are superhuman, so it's important to realise that you can't maintain an optimum level of concentration without giving yourself some time to recover from the work you've put in. Summer Task: How does language change according to its use in different social groups (occupation, gender, regional/national dialects)



## Subject.....English Literature

Vision: "Books are the carriers of civilization. Without books, history is silent, literature dumb, science crippled, thought and speculation at a standstill." – Barbara Tuchman

Reading: The Oxford Companion to Shakespeare, Death of a Salesman by Arthur Miller, Middlemarch by George Elliot, The Wasteland by T.S. Eliot.

Browsing: [www.ocr.org.uk/qualifications/as-and-a-level/english-literature-h072-h472-from-2015/](http://www.ocr.org.uk/qualifications/as-and-a-level/english-literature-h072-h472-from-2015/)

Listening: Bleak House. The Women in White, Cranford, Casablanca, 12 Years a Slave.

Watching: Lincoln, The Aviator, Oliver Twist, The Young Victoria, Effie Gray.

Advice: Your attitude has a big impact on the effectiveness of your learning process. If you keep saying that you can't do it and won't commit to the idea of learning, attempting to study is only likely to become more difficult. Instead, focus your mind on positive outcomes and on how you can use your own individual strengths to achieve them.



## Subject.....Film

Vision: "I love escaping into film, because everyday life I find quite troublesome. So any excuse to go into a cinema and say goodbye to the world for a couple of hours, or in a book or whatever, is great." – Alison Goldfrapp

Reading: The WJEC/Eduqas book "Film Studies for A/S Level and A Level. By Lisa Wardle

Browsing: [www.mediaknowall.com](http://www.mediaknowall.com)

Listening/Watching: Any film made before the year 2000!

Advice: This is a good point in time to select a couple of study partners who you know you work well with and are motivated to achieve good grades also.

Summer Task: Write two sides of A4 on an analysis of your favourite film! Try to think carefully about what you like about the film, maybe comment on the technical features (characters, settings, camera angles used). Also research the film, What did the critics think of the film? Does this change your opinion of the film or does it back up what you're saying?



# Subject.....French

Vision: "If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart" – Nelson Mandela

Reading: Le Tartuffe, Candide, L'étranger, Bonjour tristesse, Un sac de billes, Kiffe kiffe demain, No et moi.

Browsing: [www.lemonde.fr](http://www.lemonde.fr), [www.phosphore.com](http://www.phosphore.com)

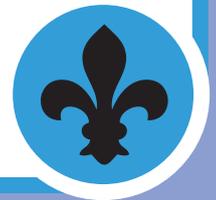
Listening: Use the websites above to also access videos and sound files on various different topics. You should also access radio channels to practise your listening skills. [www.tv5.fr](http://www.tv5.fr), [www.franceinter.fr](http://www.franceinter.fr), [www.radiofrance.fr](http://www.radiofrance.fr), [www.nrj.fr](http://www.nrj.fr)

Watching: Les 400 coups, Au revoir les enfants, La Haine, L'auberge espagnole, Entre les murs, Les Choristes, Taxi, Caché.

Advice: Ensure you are organised from the start with separate file for each teacher with dividers for each topic. Keep comprehensive grammar notes. Do plenty of listening, reading and watching of French on a regular basis. Go to France over the summer if you get chance – immerse yourself in the language!

Summer Task: Complete the following task over the summer holidays, which will form part of the work we will be doing in the first few weeks of the course:

"La France est le pays au monde qui accueille le plus de touristes." Trouvez les faits et les chiffres pour supporter l'idée et décrivez un des biens français inscrits sur la liste du patrimoine mondial de l'Unesco.



# Subject.....Health & Social Care

Vision: "Remember our proud history of social justice, universal health care, public pensions and making sure no one is left behind. Let's continue to move forward." – Jack Layton

Reading: Linda Wyatt (2017) CACHE Technical Level 3 Extended Diploma in Health and Social Care

Browsing: [www.faculty.londondeanery.ac.uk/e-learning/diversity-equal-opportunities-and-human-rights/what-is-equality-and-diversity](http://www.faculty.londondeanery.ac.uk/e-learning/diversity-equal-opportunities-and-human-rights/what-is-equality-and-diversity)

Listening: [www.bbc.co.uk/iplayer/categories/science-and-nature/highlights](http://www.bbc.co.uk/iplayer/categories/science-and-nature/highlights)

Watching: An episode of 'One Born Every Minute'.

Advice: Try to complete a work experience over the summer in a health and social care setting, diary your experiences, it will prove useful in the future!

Summer Task: Complete the following task over the summer holidays, which will form part of the work we will be doing in the first few weeks of the course: Research careers that interest you within the health and social care sector. There are so many for example, nurse, social worker, paramedic, primary school teacher, midwife, carer, health care assistant and physiotherapist to name but a few.

This should include-

- A job description
- What qualifications you need to succeed in your chosen career
- Do you need to go to University? If yes which one interests you and why?
- Where could you work once you are qualified?



# Subject.....History

Vision: "A people without the knowledge of their past history, origin and culture is like a tree without roots."

– Marcus Garvey

Reading: The Hitler Myth Ian Kershaw, The Rise and Fall of the Third Reich William L Shirer.

Browsing: [www.bbc.co.uk/iplayer/categories/history/highlights](http://www.bbc.co.uk/iplayer/categories/history/highlights)

Listening: Nazis-a warning from History available @ BBC.

Watching: Cabaret, Rise of Evil, Schindler's list, The Pianist, Valkyrie, Defiance.

Advice: It is not the amount of time you spend studying that matters. It's what you can accomplish during that time.



# Subject.....Law

Vision "I do not agree with what you have to say, but I'll defend to the death your right to say it."

– Evelyn Beatrice Hall

Reading: [www.e-lawresources.co.uk/Criminal.php](http://www.e-lawresources.co.uk/Criminal.php)

Browsing: [www.thelawbank.co.uk/links.asp](http://www.thelawbank.co.uk/links.asp)

Listening: [www.youtube.com/user/TheLawBank/videos](http://www.youtube.com/user/TheLawBank/videos)

Watching: [www.bbc.co.uk/iplayer/categories/documentaries/highlights](http://www.bbc.co.uk/iplayer/categories/documentaries/highlights)

Advice: Learn the general concepts first, don't worry about learning the details until you have learned the main ideas.

Summer Task: Watch - <https://www.youtube.com/watch?v=R3SKAn93CnU> and answer which do you think is the most important element of criminal liability and why.

Find an example of a recent criminal and civil case – outline the case and commentate whether you think the decision on criminal and civil liability was correct.



# Subject.....Media

Vision: "I love escaping into film, because everyday life I find quite troublesome. So any excuse to go into a cinema and say goodbye to the world for a couple of hours, or in a book or whatever, is great."

– Alison Goldfrapp

Reading: The Media Teacher's book Julian McDougall, Exploring the media.

Browsing: [www.mediaknowall.com](http://www.mediaknowall.com)

Listening/Watching: Any film, reading a magazine, watching TV shows or listening to the radio!

Advice: This is a good point in time to select a couple of study partners who you know you work well with and are motivated to achieve good grades also.

Summer Task: Write two sides of A4 on your favourite TV programme, music video or magazine.

Try to write about how the producers use that text to create meaning for the audience?

What and who is being shown in the text is there any hidden meaning? What do you think the purpose of the text is, what do we learn?



# Subject.....Photography

Vision: "Photography for me is not looking, it's feeling. If you can't feel what you're looking at, then you're never going to get others to feel anything when they look at your pictures." – Don McCullin

Reading: Photography foundations for art and design.

Browsing: [www.vam.ac.uk/collections/photographs](http://www.vam.ac.uk/collections/photographs)

Listening: [www.bbc.co.uk/iplayer/categories/arts/a-z](http://www.bbc.co.uk/iplayer/categories/arts/a-z)

Watching: The Genius of Photography (Youtube).

Advice: Enjoy the learning process. The best part of pursuing a subject like photography is never running out of things to learn. Inspiration is all around you. Look at everything with the eyes of a photographer and you'll see opportunities you never noticed before.

Summer Task: You will need a camera to do the practical part of this task.

You are to respond to each of the 'formal elements' that are listed below, through your own photographs. Take a minimum of 10 photographs for each of the 'formal elements' with the greatest amount of control and creativity that you can.

- Line.
- Shape.
- Form.
- Texture.
- Pattern.
- Colour.
- Space.



# Subject.....Sociology

Vision: "You must not lose faith in humanity. Humanity is an ocean; if a few drops of the ocean are dirty, the ocean does not become dirty." – Mahatma Gandhi

Reading: [www.britsoc.co.uk/what-is-sociology/how-is-sociology-research-conducted](http://www.britsoc.co.uk/what-is-sociology/how-is-sociology-research-conducted)

Browsing: [www.discoversociology.co.uk/what\\_is\\_sociology](http://www.discoversociology.co.uk/what_is_sociology)

Listening: [www.bbc.co.uk/iplayer/categories/documentaries/highlights](http://www.bbc.co.uk/iplayer/categories/documentaries/highlights)

Watching: Sociology conference at [www.discoversociology.co.uk/For-Students](http://www.discoversociology.co.uk/For-Students)

Advice: If you are asked to make an argument for a particular theory or approach, make sure that you make a balanced use of evidence to support your argument. Don't select only those facts or pieces of evidence that support your argument and ignore competing material.

Summer Task: Vox Pop: what does this mean?

Vox pop: 20 people on their opinions on:

Is society divided or cohesive?



