EASTERN EDUCATION GROUP

Level 2 Applied Science Summer Science Challenge

Explore Science in Everyday Life and Build Your Curiosity!

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Welcome to Applied Science!

Congratulations on choosing Applied Science! This course is all about exploring the world around you through experiments, investigation, problem-solving, and real-life science. Get ready to think like a scientist, build your confidence, and discover how science shapes everything in your everyday life!

🎯 Your Goals This Summer:

- Think like a scientist and ask great questions
- Build confidence in your scientific skills
- Explore everyday science around you
- Have fun discovering the world through science!

📝 Good to Know: There are no tests and no right or wrong answers here — just curiosity! You can complete your work digitally or handwritten, whichever suits you best. Your completed summer challenge is due in your first lesson back in September. We can't wait to see what you discover! 🔬

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Your Mission – What to Do

1. Complete Section A (Compulsory)
2. This section is mandatory for all students. Explore science in everyday life through hands-on observations and personal reflection tasks.
3. Complete ANY THREE Activities from Section B
4. Choose three activities that interest you most — from Mythbusters to Kitchen Chemistry, Science in the News, and more. Show your curiosity!
5. Complete ONE Big Challenge from Section C
6. Pick one major challenge: Become an Inventor, complete a Mini Research Project, or take on the Science Communication Challenge.

📅 Due Date: First lesson back in September — digital or handwritten, your choice!

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Section A – Science in Everyday Life (Compulsory)

Task 1: Science Selfie Hunt 📸

Find and photograph or draw 5 examples of science that you can spot around you in everyday life. Look around your home, garden, kitchen, or outside! Examples include: a toaster (energy transfer), a rainbow (light refraction), rust on metal (chemical reaction), a plant growing (biology), or ice melting (states of matter).

For each example you find, record the following:

- What is it? – Name and describe the object or event you observed.
- Science Area – Is it Physics, Chemistry, or Biology?
- Explanation – Write 2–3 sentences explaining the science behind it.

Example Answer ✅

Object: Fizzy drink (e.g. cola) | Science Area: Chemistry

Explanation: Fizzy drinks contain dissolved carbon dioxide gas under pressure. When you open the can, the pressure drops and the CO_2 escapes as bubbles. This is an example of a gas coming out of solution – a physical and chemical process!

EASTERN EDUCATION GROUP

The Science of YOU 🧠

Answer the following questions in paragraph form – there are no right or wrong answers! Just be honest, thoughtful, and curious.

❓ What is the most interesting scientific fact you know? Why does it fascinate you?

❓ Which science topic do you enjoy most and why? (e.g. space, human body, chemistry, environment)

❓ What discovery or invention do you think changed the world the most? Explain your reasoning.

❓ If you could invent anything using science, what would it be and what problem would it solve?

❓ What career interests you right now? How might science play a role in that career path?

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Section B – Choose Any THREE Activities

Pick any THREE of the following six activities to complete. Each one is a chance to explore science in a fun and creative way!

1. 🔍 Mythbusters – Choose a myth and investigate if it's true or false using research and evidence.
2. 🔬 Kitchen Chemistry – Conduct simple science experiments at home and record your results.
3. 📰 Science in the News – Find a recent science story and write about its impact on the world.
4. 👩‍🔬 Build a Scientist Profile – Research an inspiring scientist and create a profile about their work.
5. 🎬 Science Movie/TV Review – Watch a science-related film or show and review its scientific accuracy.
6. 🚀 The Future of Science – Imagine and write about how science will change our lives in the future.

EASTERN EDUCATION GROUP

Activity Spotlight – Mythbusters 🔍

Choose ONE myth and investigate whether it is TRUE or FALSE! This activity develops your critical thinking and research skills — just like a real scientist.

What to include in your Mythbusters investigation:

- The Myth: State the myth clearly
- Your Prediction: What do you think — true or false, and why?
- Research & Evidence: What does the science say? Use reliable sources
- Conclusion: Was the myth true or false? Explain using evidence
- Reliability Rating: Score your sources out of 10 — how trustworthy are they?

Example Myths to Investigate 🔍

- "We only use 10% of our brains"
- "Lightning never strikes the same place twice"
- "Eating carrots improves your eyesight"
- "You lose most body heat through your head"
- "Sugar makes children hyperactive"

Top Tip: Use BBC Bitesize, New Scientist or NHS websites for reliable evidence. The more evidence you find, the stronger your conclusion will be. Think like a detective — question everything!

EASTERN EDUCATION GROUP

Activity Spotlight – Kitchen Chemistry 🔬

Turn your kitchen into a science lab! Choose ONE or MORE of these fun experiments to try at home:

- Biscuit Water Absorption – how much water does a biscuit soak up?
- Freezing Liquids – which liquid freezes fastest?
- Melting Chocolate – does the type of chocolate affect melting time?
- Popcorn Investigation – does temperature affect how many kernels pop?
- Paper Towel Absorption – which brand absorbs the most water?

For each experiment, include: ✅ Aim – what are you testing? ✅ Method – step-by-step instructions ✅ Results Table – record your data clearly ✅ Graph or Chart – display your results visually ✅ Conclusion – what did you find out? ✅ Improvements – how could you make it more accurate?
⚠️ Safety First: Always ask permission before using kitchen equipment and avoid anything dangerous. Science is fun – stay safe!

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Science in the News 📰

Find a recent science news story that interests you — from topics like space exploration, climate change, artificial intelligence, medicine, or any science area you enjoy. Read the article carefully and write a short summary in your own words. Then explain why this story interests you personally and what it made you think about.

Consider the future impact: How might this discovery or development change our lives? Who benefits — and could there be any harms? Think critically about the role of science in society. 🌍

📎 Bonus: Include a link to your article, or attach a screenshot or printed image. You can complete this digitally or by hand — there are no right or wrong answers, just your curiosity!

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Section C – Choose ONE Big Challenge

1. Become an Inventor 💡
2. Design a product that solves an everyday problem! Include drawings, scientific principles, materials needed, your target audience, and why someone would buy it. Examples: food waste reducer, smart water bottle, eco packaging, study gadget, or a health monitor.
3. Mini Research Project 🔬
4. Dive deep into a science topic that fascinates you! Investigate a question, gather evidence, analyse your findings, and present your research clearly. Show off your scientist skills and explore something you're truly curious about.
5. Science Communication Challenge 🖊️
6. Create engaging science content to share with others! Write an article, make a poster, design an infographic, or produce a short video script. Your goal: explain a science concept in a fun, clear, and creative way that anyone can understand.

EASTERN EDUCATION GROUP

Challenge Spotlight – Become an Inventor 💡

Design a product that solves an everyday problem! Your invention should include: a sketch or drawing of your design, the scientific principles behind how it works, the materials you would need to build it, your target audience (who would use it?), and why people would want to buy or use your invention.

💡 Invention Ideas to Inspire You:

- Food Waste Reducer – uses chemistry or biology to slow food decay
- Smart Water Bottle – tracks hydration using sensors
- Eco-Friendly Packaging – biodegradable materials science
- Study Gadget – helps students focus or organise work
- Personal Health Monitor – tracks fitness or wellbeing

Be creative – there are no wrong answers! The best inventions solve real problems.

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Top Tips for Success & Resources

Follow these tips to make the most of your Summer Science Challenge and produce work you're proud of!

✅ Top Tips for Success:
- Be creative – there are no wrong answers, so express yourself!
- Ask questions – curiosity is the heart of science
- Explain in your own words – show you understand, don't just copy
- Use pictures, diagrams, colour & digital tools to bring your work to life
- Show curiosity – explore topics that genuinely interest you
- Don't worry about perfection – effort and enthusiasm matter most!

📚 Recommended Resources:
🌐 Websites: BBC Bitesize, NASA, New Scientist, Science News for Students, National Geographic
▶️ YouTube: Kurzgesagt, BBC Earth Lab, Veritasium, SciShow, Mark Rober, Ted-Ed
💡 Tip: Bookmark your favourites and revisit them throughout the year!

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

Final Reflection Before September

What activity did you enjoy most, and why did it stand out to you?
What surprised you the most during your research or investigations this summer?

What are you most excited to learn about Applied Science this year?
What skills do you want to improve or develop during this course?

WSC WEST SUFFOLK COLLEGE SIXTH FORM

EASTERN EDUCATION GROUP

We Can't Wait to Meet You!

"Applied Science is about curiosity, experimentation, teamwork, and discovering how science shapes the world."

Have a fantastic summer! Enjoy exploring science! See you in September 🔬

WSC WEST SUFFOLK COLLEGE SIXTH FORM