



SCIENCE SUPER CURRICULUM YEAR 7















Watch: BBC's The Planets (2019) or One Strange Rock MISSION: WITNESS A STAR BEING BORN. See how Earth is the weirdest, most amazing planet in the cosmos. Hosted by an astronaut! Your mind will be blown.	Read: <i>Science Squad</i> by Robert Winston MISSION: DECODE THE SCIENCE OF EVERYTHING. This is your colourful guide to the forces, reactions, and biology that explain the world around you. Your first brief.	Visit: The Natural History Museum, London MISSION: VISIT A HAUNTED MUSEUM. Find the most terrifying creature that ever lived. Is it the T-Rex? The giant sloth? The dragonfly with a wingspan as wide as you are?
Listen: <i>The Curious Cases of Rutherford & Fry</i> (BBC) MISSION: SOLVE EVERYDAY MYSTERIES. How do ducks keep their feet warm? Why are bubbles round? Join the podcast that uses science to answer brilliant questions.	Experiment: Kitchen Science Volcanos & DNA MISSION: UNLEASH A CHEMICAL VOLCANO & DECODE YOUR DNA. Make a huge foamy eruption with Elephant's Toothpaste. Then, use soap and salt to extract your own DNA—it looks like snotty cobwebs!	Research: A Famous Scientist like Marie Curie MISSION: PROFILE A SCIENTIST SUPERHERO. uncover the story of a genius like Marie Curie. What did they discover? What were their struggles and triumphs?
Explore: Royal Institution ExpeRimental Website MISSION: DOWNLOAD YOUR EXPERIMENT BRIEFS. This site is your HQ for declassified, safe-to-try experiments using everyday materials. Your mission: try one.	Create: A "Cell City" Poster MISSION: DESIGN A MICROSCOPIC METROPOLIS. Turn a cell into a city! The nucleus is town hall, mitochondria are power plants. Can you label all the organelles?	Watch: <i>Operation Ouch!</i> on CBBC MISSION: LEARN THE GROSS SECRETS OF THE HUMAN BODY. Discover why you vomit, how your scabs form, and what earwax is actually for. Hilarious and fascinating!
Citizen Science: Zooniverse Project MISSION: BECOME A REAL SCIENTIST FOR A DAY. Help real researchers by classifying galaxies or identifying animals in the wild. Contribute to actual science from your laptop!	AI Challenge: Train a Simple Machine Learning Model MISSION: TEACH A COMPUTER TO SEE. Use free tools like Google's Teachable Machine to train a simple AI to recognise objects like rocks, leaves, or your favourite toys!	Investigate: The Future of Medicine - Mini-Brains MISSION: EXPLORE THE LAB-GROWN BRAIN. Scientists like Madeline Lancaster can grow tiny, simplified versions of human brains from stem cells to study diseases! Watch a video on "organoids", then design a poster for a new medicine tested on a "heart-on-a-chip" instead of an animal.

	Reading Task		Creative Task
	Research Task		Writing Task
	Watching Task		Student – Led Task
	Listening Task		Trip or Visit



SCIENCE SUPER CURRICULUM YEAR 8



 Watch: <i>BBC Horizon - What is One Degree?</i> MISSION: CRACK THE TEMPERATURE CODE. A degree seems simple, but this film reveals the epic scientific quest to define it. You'll never look at a thermometer the same way again.	 Read: <i>The Element in the Room</i> by Mike Barfield MISSION: BECOME A PERIODIC TABLE DETECTIVE. This book explores the hilarious and surprising stories of the elements that make up you and your world. Where's the phosphorus in your body? (Spoiler: it's in your DNA).	 Visit: The Science Museum, London MISSION: REVERSE-ENGINEER AN INVENTION. Find one amazing invention (like a steam engine or satellite) and work out the core scientific principles (pressure, gravity, waves) that make it work.
 Listen: <i>The Infinite Monkey Cage</i> podcast (BBC) MISSION: DEBATE THE BIGGEST IDEAS IN SCIENCE. Join Brian Cox and Robin Ince for a witty and brainy panel show tackling topics from the Big Bang to the science of comedy.	 Experiment: The Non-Newtonian Fluid Challenge MISSION: CREATE A SUBSTANCE THAT DEFIES THE LAWS OF PHYSICS. Make Oobleck (cornflour and water). Is it a solid or a liquid? Punch it (it hardens). Let it drip (it flows). Test its limits and explain why it behaves so weirdly.	 Research: Rosalind Franklin & Photo 51 MISSION: UNCOVER THE DARK HORSE OF DNA. Discover the story of the scientist whose crucial X-ray image was used to decode DNA's structure without her full credit. Investigate the ethics of scientific discovery.
 Explore: PhET Interactive Simulations (University of Colorado) MISSION: SIMULATE THE UNSEEABLE. Use these brilliant physics and chemistry sims to build your own electric circuits, see sound waves, or change states of matter. Experiment with things too big, small, or fast for the classroom!	 Create: A "Forces of Rollercoasters" Poster/Model MISSION: DESIGN THE ULTIMATE THRILL RIDE. Using cardboard, tape, and marbles, build a model coaster loop. Calculate the forces (gravity, acceleration) needed to keep the marble on the track without crashing.	 Watch: <i>MythBusters Jr.</i> MISSION: LEARN THE ART OF SCIENTIFIC DEBUNKING. The young team uses the scientific method to test and explode myths from movies and pop culture. Could you really make a raft out of soda bottles?
 Citizen Science: <i>Foldit</i> - Solve Puzzles for Science MISSION: PLAY A VIDEO GAME THAT CURES DISEASES. Fold proteins into their most efficient shapes to help scientists design new medicines. Your gaming skills could contribute to real medical research.	 AI Challenge: Design a Simple Chatbot MISSION: BUILD A CONVERSATIONAL AI. Use a beginner-friendly platform like Flowise or Google's Dialogflow to design a chatbot that can quiz someone on the periodic table. Understand how AI uses "if-then" logic to simulate conversation.	 Investigate: The Ethics of Gene Editing (CRISPR) MISSION: HOLD A DEBATE ON DESIGNER BABIES. Scientists can now edit genes like editing text. Should we use it to cure diseases? What about choosing eye colour? Research CRISPR, then argue for or against its limits.