



Summer Readiness: Grade 12

Goal: Build momentum and confidence for the upcoming school year. Choose your challenge level for each subject. Students in Extended sections are encouraged to complete "The Push".

Subject	Focus Skills & Standards	The Resources	The Core Challenge	The Push (Extension)
Mathematics	Skills & Standards - HSA-REI.B.3. Solve linear equations and inequalities in one variable. - HSA-APR.A.1. Operations on Polynomials - A-REI.2.10.1a (x) use the method of completing the square to solve a quadratic equations - A-REI.2.10.1b solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, - HSA-REI.B.4. Solve quadratic equations in one variable. - F-IF.3.10.1a graph linear and quadratic functions and show intercepts, maxima, and minima.	Inequalities and Quadratic Equations	Graphing Inequalities in two variables Volumes of 3D Quadratic Formula Projectile motion Solve quadratic Equation by Graphing	Selected Questions from Worksheets
Language & Literature	Core Skills - Visual literacy - Literary and visual analysis - Symbolism and thematic interpretation - Rhetorical analysis - Comparative analysis - Evidence-based argumentation	Banksy Edgar Allan Poe Photography Pulitzer Prizes Crashcourse- Macbeth	Summer Packet ELA 12	Powerful documentary photography archives for comparison activities. Refugee photography connections

	Priority Standards 1. CCSS.ELA-LITERACY.RI.11-12.1 Cite strong and thorough textual evidence. 2. CCSS.ELA-LITERACY.RI.11-12.6 Determine an author's point of view or purpose. 3. CCSS.ELA-LITERACY.RI.11-12.7 Integrate and evaluate information presented in diverse media. 4. CCSS.ELA-LITERACY.RL.11-12.2 Determine themes and analyze development. 5. CCSS.ELA-LITERACY.W.11-12.1 Write arguments to support claims with evidence.			
Science Advanced biology	Skill(s): - Developing and using models - Analyzing and interpreting data - Applying cause and effect relationships - Analyzing systems and system models Standard(s): HS-LS1-7 – Model how cellular respiration releases energy from food to produce ATP HS-LS3-1 – Explain how DNA and chromosomes carry and transfer genetic information.	Resources	Packets advanced Biology	Extension task
Science: Advanced Chemistry	Skill(s): -Differentiate between ionic and covalent bonding	Topic 1 Reading Material.docx Covalent Bonding, Molecular Structure, and Molecular Geometries	Core Assignment.docx	Extended Assignment.docx

	- Differentiate between ionic and molecular compounds - Draw Lewis structure of molecular compounds and polyatomic ions - Identify molecular geometries using Lewis structures - Identify and classify types of chemical reactions - Write balanced chemical equations - Calculate the number of moles using mass, concentration and gas volume - Convert between moles, mass and number of particles Priority Standard(s): HS-PS1-2 Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms. HS-PS1-7 Use mathematical representation to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.	https://edpuzzle.com/assignments/6a0b33796c3b43db6e078829/watch https://edpuzzle.com/assignments/6a0bd8967dcc09d0844012bd/watch Build a Molecule - Molecules Molecular Formula Isomers - PhET Interactive Simulations Molecule Shapes - VSEPR Lone Pairs Bonds - PhET Interactive Simulations Molecule Shapes: Basics - Bonds Molecules VSEPR - PhET Interactive Simulations Topic 2 Reading Material.docx Chemical Reactions: Balancing chemical equations and types of chemical reaction https://edpuzzle.com/assignments/6a0b43135aaa082d5c384b40/watch Topic 3 - Reading Material.docx The moles https://edpuzzle.com/assignments/6a0c3fc0c8312daea9f98f6f/watch		
Science: Advanced Physics	Priority standard: HS-PS2-1: Analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on an object, its mass, and its acceleration. Skills: - I can distinguish between scalar and vector quantities and understand that vectors have both magnitude and direction.	- Refresher presentation on Trigonometry - Edpuzzle on Vectors vs Scalars - Nearpod on vector components using trigonometry - Summary on Vectors	Physics - Core task	Physics – Extended task

	- I can use basic trigonometry (sine, cosine) to resolve a vector into components. - I can add vectors graphically (head-to-tail) and use their components to determine the resultant vector. Determining the net force by combining multiple forces vectors acting in different directions.			
US History	Skill(s): These videos start you at the same point as students in America start their learning. This history will leave you ready for the rest. Standard(s): D1.5.9-12. D2.Civ.3.9-12. D2.Civ.4.9-12. D2.His.1.9-12.	• Black Legend • Age of Exploration • Expansion and conquests • The Columbian Exchange • When is Thanksgiving? • The Natives and the English • The Quakers, the Dutch, and the Ladies	USH Summer Packet.docx	
Electives (Art/PE/Design)	Skill(s): Standard(s): Art: Skill(s): Art Analysis Standard(s): Core Challenge: VA:Re8.1.HSI The Push: VA:Re8.1.HSIII		Art: Art- Summer Museum Guide.docx	Art: Art- Summer Museum Guide.docx
Islamic	Skill(s): إتقان أحكام التجويد وتلاوة القرآن الكريم حفظ الآيات غيباً فهم معاني الآيات وما ترشد إليه والشراء البيع معرفة أحكام وعقود المعاولات Standard(s): - قراءة - كتابة - استيعاب وفهم - تحليل - استنتاج	Islamic Summer Packet Grade 12.pptx.pptx التربية الإسلامية - الأنشطة الصيفية - الصف الثاني عشر.pptx	Islamic Summer Packet Grade 12.pptx.pptx	التربية الإسلامية - الأنشطة الصيفية - الصف الثاني عشر.pptx
Arabic A	Skill(s): القراءة - الاستثناء - العدد - المشتقات - الكتابة - التحديث - الفهم والاستيعاب Standard(s): - التحليل - التنظيم - إنتاج النص - استخدام اللغة	امتحان المستوى.pdf	من سيربح المليون؟ (لغز وحل).pptx	

Arabic B	Skill(s): Comprehending authentic audio and written texts - Writing structured responses for specific text types - Expressing personal opinions on global themes - Applying solid grammatical foundations Standard(s): - DP Language B: Receptive (Identifying main ideas & context) - DP Language B: Productive (Organizing ideas with text conventions) - DP Language B: Interactive (Coherence in communication)		Summer Packet DP2 Arabic HL	Past Papers
French	Skill(s): Comprehending authentic audio and written texts - Writing structured responses for specific text types - Expressing personal opinions on global themes - Applying solid grammatical foundations Standard(s): - DP Language B: Receptive (Identifying main ideas & context)	Summer Resources 1jour un actu	Summer Packet Fr B HL Summer Packet Fr B SL Summer Packet Fr Ab initio	Apprendre le français



	- DP Language B: Productive (Organizing ideas with text conventions) - DP Language B: Interactive (Coherence in communication)			
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Readiness Reflection

After finishing your chosen challenges, consider:

- Which tier did you reach?
- What is one moment where things "clicked" for you?
- On a scale of 1–5, how ready do you feel for August?

Family Guidance

- Encourage students to complete the packet over time instead of in one sitting.
- Ask students to explain what they notice, how they know, and which resource helped them most.
- Families may support organization and time management, but the final work should reflect the student's own thinking.