YISHUN SECONDARY SCHOOL
Subject & Code: Pure Geography / 2125 Level & Stream: Sec 4 Normal (Academic)

The Curriculum and Approaches to Learning	**Key Programmes / Competitions**
The Geography (Elective) syllabus is organised by topics that are grouped according to clusters to achieve a balance between breadth and depth of content coverage. By using geographical concepts and methods in lessons at YSS, students would elevate the relevance and applicability of Geography. Furthermore, students will be able to understand key geographical concepts such as space, place, physical and human processes, environmental and cultural diversity and interdependence and skills to develop in them an appreciation of the physical and human environment.	• Learners will engage in inquiry-based, differentiated learning experiences that make their thinking visible and support deeper understanding • Reflective learner who evaluates and develops their skills and knowledge through ongoing self-reflection • Assessment for learning approaches to assess students and provide feedback to help them improve • To critically use educational technology (Ed-Tech) and AI tools to analyse and interpret geographical data

Term / Week Term 1	Learning Experiences (chapter, activity)	Learning Outcomes & Assessment
0	**Back-to-School Programme**	
1 – 2	**<u>Topic 3.1 – Plate Tectonics</u>** **<u>KQ 3.1.4 – What happens at plate boundaries when tectonic plates move?</u>** **Divergent plate boundaries** **a)** plates move away from each other **b)** results in mid-ocean ridges, volcanoes including submarine volcanoes and volcanic islands, rift systems and earthquakes **Convergent plate boundaries** **a)** plates move towards each other **b)** results in fold mountains, volcanoes including submarine volcanoes, oceanic trenches and earthquakes **Transform plate boundaries** **a)** plates slide past each other **b)** results in faults and earthquakes	**<u>Content Activity</u>:** • "Why doesn't this happen in Singapore?" to sensitise students to different plate boundaries in the world and Singapore's place on the world map **<u>Skill Focus</u>:** • Data response question - using figure to describe and explain formation of different landforms / processes • Classification on different plate boundaries and formations

3 – 7 CNY Celebrations 16 Feb 2026 CNY 17 – 18 Feb 2026	**Topic 3.2 – Earthquakes and volcanoes** **KQ 3.2.1 – How do tectonic processes affect the magnitude of earthquakes?** **Tectonic processes of earthquakes** **a)** stress builds up and exceeds strength of the fault **b)** sudden release of seismic waves, radiating energy from the focus **Magnitude of earthquakes** **a)** affected by amount of energy released through ground movement **b)** recorded using seismometers **Measuring earthquakes** **a)** Richter Scale measures local magnitude of earthquakes **b)** Moment Magnitude Scale measures larger earthquakes more reliably **KQ 3.2.2 – How do tectonic processes affect the magnitude of volcanic eruptions?** **Tectonic processes of volcanic eruptions** **a)** magma consisting of dissolved gases is less dense forces its way upward and breaks through weak areas in the Earth's crust **Magnitude of volcanic eruptions** **a)** determined by amount of dissolved gases and magma viscosity **b)** stratovolcanoes erupt violently and shield volcanoes emit magma gently **Measuring volcanic eruptions** **a)** Volcanic Explosivity Index measures relative explosivity of historic eruptions **b)** considers the volume of ejected materials, height of eruption cloud **c)** and duration of the eruption **Revision for WA1**	**Content Activity:** • "What is going on below our feet?" to introduce and familiarize students to plate movements below the Earth's surface **Skill Focus:** • Annotation of two types of volcanoes (shield- and strato-volcano) • Data Response question – using maps to describe the distribution of earthquakes or volcanic eruptions • Data Response question – using figure to explain why earthquakes or volcanic eruptions happen • Critical thinking, Observation & analysis, Collaboration
8	**Buffer Week** Weighted Assessment 1	

8 – 10	**KQ 3.2.3 – How might distribution of earthquakes and volcanoes influence the location of tectonic hazards?** **Distribution of earthquakes** **a)** along all plate boundaries **b)** largest concentration at the Pacific Ring of Fire **Distribution of volcanoes** **a)** located near convergent and divergent plate boundaries **b)** hot spot volcanoes are found away from plate boundaries **Distribution of tectonic hazards** **a)** most located near plate boundaries, and near earthquakes and volcanoes **b)** tsunamis and volcanic ash may spread beyond geographic region **KQ 3.2.4 – How might tectonic hazards affect the natural and human systems?** **Earthquake hazards and their impacts** **a)** hazards include ground shaking, soil liquefaction, landslides and tsunamis **b)** impacts include destroying ecosystems, properties and infrastructure, disrupting services, and causing injury and loss of life **Volcanic eruption hazards and their impacts** **a)** hazards include tephra, volcanic gases, lava flows, pyroclastic flows, lahars and volcanic landslides **b)** impacts include destroying ecosystems, properties and infrastructure, disrupting services, and threatening public health and causing injury and loss of life **Benefits of volcanic eruptions and living near volcanoes** **a)** volcanic eruption provides fertile soil for farming after volcanic materials are broken down and weathered, and makes available valuable minerals and building materials **b)** living near volcanoes allow harnessing of geothermal energy and tourism activities	**Content Activity:** • "Where are earthquakes and volcanoes found in the world map" activity **Skill Focus:** • Map reading • Data response question – classification of different hazards and impacts • Data response question – describe the distribution of earthquakes and volcanoes • Explanation on why earthquakes and volcanoes are found at certain plate boundaries • Collaboration, critical thinking, evaluation
March Holiday [16/3/2026 – 22/3/2025]		

Term / Week Term 2	Learning Experiences (chapter, activity)	Learning Outcomes & Assessment
1 – 2	**KQ 3.3.1 – How does disaster risk management help achieve sustainable development?** **Disaster Risk Management** **a)** prevent, reduce and manage disaster risks thus strengthening resilience **b)** apply plans and actions which are developed into various strategies by communities **Disaster risk and loss** **a)** brings about serious economic, social and environmental consequences **b)** costly for individuals and countries, and may hinder development **Reducing disaster risks** **a)** important for disaster-prone developing countries cost-effective investment in preventing future losses, thus contributing to sustainable development	**Content Activity:** • Students will use AI to research on specific case studies that uses Disaster Risk Managememt **Skill Focus:** • AI Literacy, Digital Literacy, Critical Thinking, Collaboration, Civic Awareness & Problem-Solving
3 - 4 Good Friday (3/4/2026)	**KQ 3.3.2 – Why do disaster risks related to earthquakes and volcanic eruptions vary across places?** **Tectonic disaster risk** **a)** interaction between tectonic hazards and vulnerability and exposure to earthquakes and volcanic eruptions **b)** results in potential loss of human lives and damage to properties **Factors influencing disaster risks caused by earthquakes** **a)** nature of hazards including duration and time of shaking **b)** vulnerable conditions including quality of building design and construction, soil and rock properties, and exposure including population density and distance from epicentre **Factors influencing disaster risks caused by volcanic eruptions** a) nature of hazards including chemical composition of magma b) vulnerable conditions including availability of surface and ground water facilitating the development of lahars, prevailing wind conditions affecting distribution of tephra, and exposure including presence of human settlements	**Content Activity:** • Students are to use AI tools and SLS chatbot to research on how disaster risks is different across places in the world **Skills Focus:** Critical Thinking, Digital Literacy, Collaboration, Communication, Civic Awareness, Problem-Solving

4 – 6	**KQ 3.3.3 – How effective are the strategies in building communities' resilience to earthquakes and volcanic eruptions?** **Strengthening resilience** **a)** important for communities living in hazard-prone zones **b)** to resist, adapt and recover from impacts of disasters in a timely and efficient manner **Strategies in building community resilience** **a)** reducing exposure including land use planning, reducing vulnerability including hazard resistant building designs, and monitoring and warning systems **b)** increasing preparedness for response and recovery **Challenges in building community resilience** **a)** extent of community's resources **b)** capability of community to organise itself for disasters **KQ 3.3.4 – How effective are the disaster management strategies after an earthquake or a volcanic eruption?** **Disaster management** **a)** organisation, planning and application of strategies **b)** responding to and recovering from disasters **Disaster management strategies** **a)** disaster response includes search and rescue efforts, timely evacuation, and provision of basic social and psychosocial services to affected communities **b)** disaster recovery includes restoring and improving facilities and living conditions of affected communities **Challenges in disaster management** **a)** lack of domestic resources, including technological and financial resources **b)** engaging relevant stakeholders to collaborate and integrate disaster management strategies into their practices	**Content Activity:** • Essay writing on effectiveness of strategies in building communities' resilience • Essay writing on effectiveness of disaster risk management strategies **Skills Focus:** • Use of AI too to evaluate the effectiveness of strategies in building communities' resilience • Use of AI to evaluate the effectiveness of disaster risk management strategies
7	**WA2 REVISION** Tectonics 2.2.3 to 3.4.4 (includes 6m AO3 Essay)	
8 Labour Day (1/5/2025)	**WA2**	
9	**WA2 Script-Checking and Revision**	
10 Vesak Day (31/5/2026)	**Sec 4E5N Mother Tongue Intensive**	
June Holiday Break (1/6/2026 – 28/6/2026)		

Term / Week Term 3	Learning Experiences (chapter, activity)	Learning Outcomes & Assessment
1 – 5 Youth Day (7/7/2026)	**<u>Revision for 4N Preliminary Examination (Topical Revision & Skills-based Revision)</u>** 1. Week 1: GEL KQ1 & 2 2. Week 2: GEL KQ 3 & 4 3. Week 3: Tectonics KQ 1 & 2 4. Week 4: Tectonics KQ 3 & 4	
5 - 7 * National Day Celebrations (7/9/26) National Day (9/9/26)	**4N PRELIMINARY EXAMINATION**	
8 – 10 * Teachers' Day Celebrations on W10	**4N PRELIINARY EXAMINATION SCRIPT-CHECKING**	
September Holiday Break (7/9/26 – 13/9/26)		

Term / Week Term 4	Learning Experiences (chapter, activity)	Learning Outcomes & Assessment
1 - 2	**N LEVEL EXAM PART 1**	
2 – 3 Graduation Day on W2*	**Revision for N Level Exam:** • Geography in Everyday Life • Tectonics	
4 – 5	**N LEVEL EXAM PART 2**	

**All information is correct at the time of publication and may be subjected to change.*