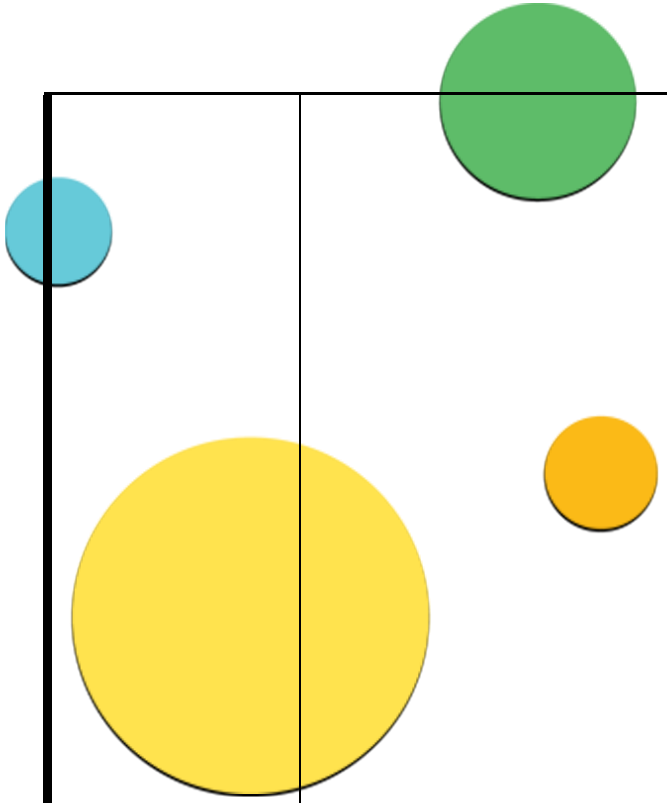
Straits International School Rawang
Curriculum Overview – Year 6
Year 6 Summer Term 3.1 2024/2025

Summer Term 3.1	What will we learn?	What KUS will we gain?	What will excellence look like?
English **Reading**	• Understand the key features of science fiction and how it compares to other fiction genres. • Learn how to plan, write, and improve a science fiction story using structured narrative tools and grammar skills. • Analyse example texts to develop ideas and strengthen writing through feedback and redrafting.	**Knowledge:** • Key characteristics of science fiction. • Common narrative structures used in fiction. • Grammar: past tense, past participle, past perfect. **Understanding:** • How the features of science fiction shape plot, character, and setting. • How to plan a cohesive and engaging story using structure. • The purpose of editing and redrafting to improve clarity and impact. **Skills:** • Analysing texts to identify genre-specific features. • Planning and structuring a full narrative. • Writing creatively using a clear sequence of events. • Applying accurate grammar and punctuation. • Giving and receiving constructive feedback.	• A clearly structured science fiction story with a strong opening, detailed build-up, engaging problem, and satisfying resolution. • Effective use of science fiction elements such as futuristic settings, technology, or time travel. • Confident and accurate use of past tense, past participle, and past perfect grammar. • Evidence of thoughtful planning and redrafting to improve writing. • Creativity, originality, and voice in storytelling. • Accurate spelling, punctuation, and grammar throughout the final piece.

How will this be assessed?	**Big Write assessment**	
Maths	**Area, perimeter and volume** **Statistic**	**1.Understanding Perimeter**: Students will learn how to calculate the perimeter of various 2D shapes such as squares, rectangles, triangles, and other polygons. 2. **Area Calculation**: They'll calculate the area of rectangles, squares, triangles, and parallelograms. 3. **Introduction to Volume**: They'll learn how to find the volume of 3D shapes like cubes and cuboids (rectangular prisms). 4. **Understanding Units of Volume**: Volume is typically measured in cubic units like cubic centimeters (cm^3), cubic meters (m^3), etc. 5. **Problem Solving with Shapes and Measurements:** Students will apply their knowledge to solve word problems involving perimeter, area, and volume. **6. Unit Conversions**	• **Mastery of geometric formulas** for calculating perimeter, area, and volume. • **Ability to apply these concepts** to real-life problems and scenarios. • **Enhanced problem-solving skills** in geometry and measurement. • **Understanding of spatial relationships** and how 2D and 3D shapes fit together in various contexts. By the end of the topic, students should be able to confidently apply the formulas they have learned to a variety of shapes and solve complex measurement problems. • **Ability to organize, represent, and interpret data** using tables, charts, and graphs.



1. Understanding Data Collection:

- **Types of Data**: Students will learn about different types of data (e.g., discrete vs. continuous) and how to collect data in an organized manner.
- **Surveys and Questionnaires**: They'll understand how data can be gathered using surveys or questionnaires, and how to record responses effectively.

2. Organizing Data:

- **Tally Charts**: Students will learn how to use tally charts to count and organize data.
- **Frequency Tables**: They'll understand how to create and interpret frequency tables, which show how often each piece of data occurs.
- **Bar Charts**: They'll learn how to represent data using bar charts, ensuring they know how to label axes, interpret the scale, and draw conclusions from the data.
- **Pictograms**: Students will also work with pictograms, where symbols represent amounts of data, helping them to visualize the data in a more accessible way.

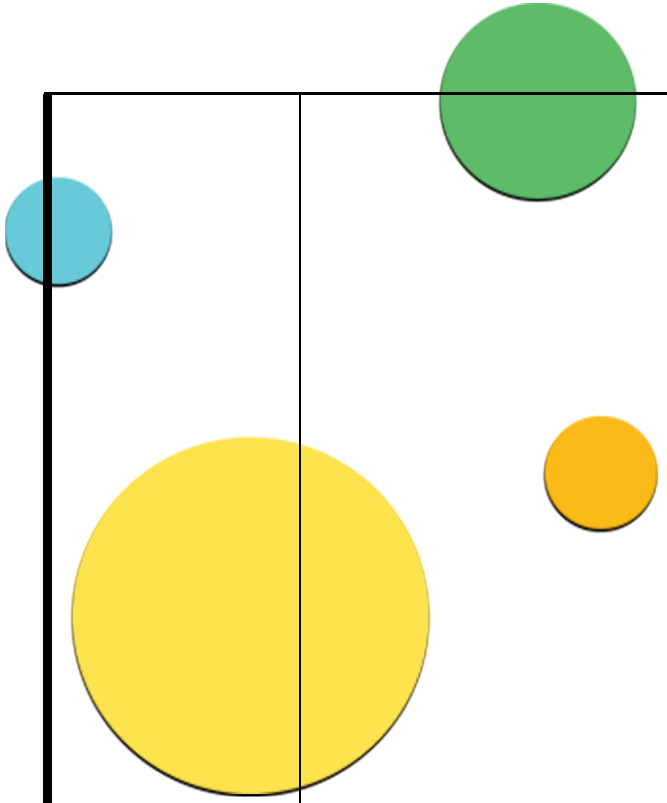
3. Measures of Central Tendency:

- **Mean**: They'll learn how to calculate the mean (average) by adding up all the data values and

- **Mastery of central tendency measures (mean, median, mode)** and the ability to calculate and interpret them.
- **Skill in finding the range** of a data set to understand its spread.
- **Enhanced critical thinking skills** by comparing and analysing data to draw conclusions.
- **Real-life data analysis skills**, helping students to approach problems involving data in everyday contexts.

By the end of this topic, Year 6 students should be comfortable working with various types of data, calculating measures of central tendency, and interpreting and presenting data effectively. This builds a solid foundation for more advanced statistical analysis in Secondary.

		dividing them by the number of values. This helps students understand central tendency in a data set. • **Median**: Students will find the median, which is the middle value when the data is arranged in order. They'll learn how to determine the median in both even and odd-numbered data sets. • **Mode**: They will also calculate the mode which is the most frequent value in a data set.	
How will this be assessed?		**EOU test and Assessments**	
IPC	**Mission to Mars**	**1. Understanding Space Exploration and Mars:** • **Knowledge of Mars**: Students will gain an understanding of Mars, including its physical features, atmosphere, gravity, and potential for supporting life. They'll explore why Mars is a target for exploration and potential colonization. • **Exploration History**: They'll learn about the history of space exploration, key missions to Mars (like those by NASA, the Mars rovers, and future missions), and the role of astronauts and	**Key Learning Outcomes:** • **Space Knowledge**: A deeper understanding of Mars, space travel, and the technological innovations that support space exploration. • • **Problem-Solving Skills**: Enhanced critical thinking and problem-solving abilities through hands-on, practical tasks and challenges. • • **Collaboration**: Improved teamwork and communication skills as they



scientists in advancing our understanding of space.

2. The Challenges of Space Travel:

- **Life Support Systems**: Students will investigate the technology required to sustain human life during space travel, such as oxygen production, waste management, and food supply for astronauts.
- **The Harsh Environment of Mars**: They'll explore the difficulties of living and working on Mars, such as low temperatures, thin atmosphere, radiation, and the need for habitats and resources to survive.
- **Spacecraft and Technology**: Students will examine the technology used to travel to Mars, including spacecraft, rockets, and landers. They'll learn how these innovations help humans safely travel through space and reach Mars.

3. Designing a Mission to Mars:

- **Planning a Mars Mission**: As part of the IPC project, students may engage in designing their own Mars mission. This could involve brainstorming ideas for spacecraft, landing sites, and the equipment needed for human exploration on Mars.
- **Problem-Solving**: They'll tackle real-world problems that might occur during the mission, such as how to transport supplies, how work with others to plan a Mars mission.
- **Creativity**: A chance to creatively design and simulate their own mission to Mars.

- **Ethical and Sustainable Thinking**: Awareness of the ethical considerations and sustainability in space exploration.

By the end of the *Mission to Mars* topic, students will have gained a broad understanding of space science, developed practical skills in problem-solving and teamwork, and acquired knowledge about future space missions, especially to Mars.

This topic ignites curiosity about space while building essential skills that can be applied in various fields of study.

		astronauts will communicate with Earth, and how to ensure the mission's success. **4. Scientific Investigation and Experiments:** • **Conducting Space-Related Experiments**: Students might conduct simple experiments related to space, like simulating Mars' gravity or investigating how plants could grow in space. • **Robotic Missions and Rovers**: They'll learn about the role of robots and rovers, like the Perseverance Rover, in exploring Mars remotely. Students could simulate how rovers collect data or design a model rover for a mission. **5. Geography of Mars and Earth:** • **Comparing Earth and Mars**: Students will compare the geography of Earth and Mars, studying their landscapes, surface features (such as volcanoes, canyons, and ice caps), and the potential for future exploration. • **Understanding Orbits**: They'll learn about orbits, the path Mars takes around the sun, and how it relates to Earth's orbit. This helps students grasp how space missions are timed. **6. Critical Thinking and Teamwork:** • **Collaboration**: Since space exploration often involves teamwork, students will collaborate with classmates to tackle challenges and complete	

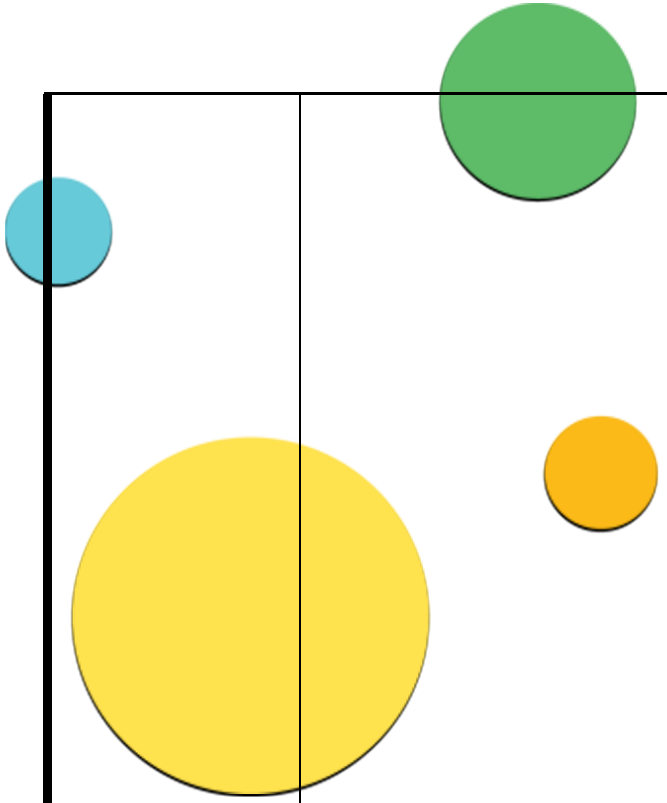
		tasks related to the mission, fostering skills in communication, planning, and cooperation. • **Critical Thinking**: They'll be encouraged to think critically and creatively to solve problems, such as how to design a spacecraft or how to adapt life for humans on Mars. **7. Sustainability and Ethics:** • **Sustainability in Space**: Students will explore how we can ensure that a Mars mission is sustainable, looking at resource use, recycling, and the impact of space exploration on both Mars and Earth. • **Ethical Considerations**: There may also be discussions on the ethics of space exploration, such as whether we should colonize Mars, the environmental impact, and how we can protect other planets from human interference. **8. Cross-Disciplinary Learning:** • **STEM Integration**: The topic combines science, technology, engineering, and mathematics (STEM), encouraging students to apply knowledge from different subjects to solve complex problems related to space exploration. • **Creative and Practical Skills**: The topic integrates creative thinking (designing spacecraft, visualizing life on Mars) with practical skills (mathematical calculations, conducting experiments), helping students see the real-world applications of what they learn.	

How will this be assessed?		**Science Knowledge checker and Exit Point**	

Bahasa Melayu	**Bercuti dan Melancong**
	
	Students will understand the concepts of vacation and travel, including the purposes and benefits of taking a break from daily routines and exploring new places.
		• Knowledge:
		  ○ Recognize the basic concepts of vacation and travel, such as taking breaks from daily routines, visiting new places, and experiencing different cultures.
		  ○ Identify common types of vacations (e.g., *percutian pantai* – beach holiday, *percutian bandar* – city tour, *percutian alam semula jadi* – nature trip).
		  ○ Understand the benefits of vacation and travel, such as relaxation, cultural exposure, and adventure.
		• Understanding:
		  ○ Understand that taking a vacation can help to refresh the mind, improve physical health, and strengthen family and social bonds.
		  ○ Comprehend how travel can help explore new places, understand different cultures, and learn new experiences.
		  ○ Understand that vacations can be short-term (e.g., weekend trips) or long-term (e.g., international holidays).
		• Skills:
		  ○ Be able to discuss and describe their own vacation experiences or places they would like to visit (e.g., "Saya suka pergi
			• Students accurately identify different types of vacations and travel in Bahasa Melayu (e.g., *percutian pantai*, *percutian bandar*, *percutian keluarga*).
			• Students can describe the benefits of taking a break from daily routines, explaining how vacations can help them relax and learn (e.g., *"Percutian membantu kita berehat dan belajar tentang tempat baru"* – Vacation helps us relax and learn about new places).
			• Students apply vocabulary related to travel and vacation in conversation and writing, creating simple sentences like *"Saya bercuti di Kuala Lumpur"* – "I am vacationing in Kuala Lumpur" or *"Kami melawat taman tema"* – "We visited a theme park".
			• Students can plan a trip and discuss destinations, activities, and cultural experiences, showing a clear understanding of what a vacation or travel experience entails.

		bercuti di pantai" – I like to go on vacation at the beach). ○ Use relevant vocabulary in speaking and writing about travel and vacation (e.g., *perjalanan* – trip, *destinasi* – destination, *pemandangan* – scenery). ○ Plan and discuss a vacation or trip using simple sentences in Bahasa Melayu.	
How will this be assessed?		Worksheets, videos, simple quizzes, assessments, Q&A	
Mandarin	**Mandarin Advanced:** Technology and social media (科技与社交媒体) **Mandarin Beginner:** Western Food and Fruits 西餐与水果	**Mandarin Advanced:** 学生将学习与科技和社交媒体相关的词汇，如“科技”、“发达”、“技术”、“便捷”、“双刃剑”等，理解其在日常生活和社会中的实际应用。他们将练习这些词汇的汉字书写与造句，并通过讨论、写作和阅读，提升表达和理解能力。学生也将探讨社交媒体的利与弊，学会用中文表达观点与立场，发展批判性思维和语言逻辑。通过综合练习，增强学生在真实语境下听、说、读、写的中文综合能力。 **Mandarin Beginner:** In this lesson on Western Food and Fruits, Year 6 Beginner Mandarin students will expand their vocabulary by learning words such as 西餐 (Western food), 中餐 (Chinese food), 意大利面 (spaghetti), 沙拉 (salad), 酸奶 (yogurt), 香蕉 (banana), 水果 (fruits), 草莓 (strawberry), and 甜 (sweet).	**Mandarin Advanced:** 学生能够熟练掌握并准确运用与科技和社交媒体相关的高阶词汇，表达有条理、观点清晰的句子或段落，如：“科技是一把双刃剑，既方便了生活，也带来了挑战。”他们的汉字书写规范，笔画顺序正确，句式多样。在阅读理解方面，能深入分析文章内容、推断作者意图并作出合理判断。在口语或写作表达中，优秀学生能结合实例说明观点，展示较强的逻辑思维与语言组织能力，表现出较高的中文应用水平。 **Mandarin Beginner:** Excellence in this lesson will be demonstrated by students confidently recognizing and using the target

		They will also practice using the sentence pattern "Someone + 不太 + 喜欢 + 吃 + food/fruits" (e.g., 我不太喜欢吃沙拉。 – I don't really like eating salad). Through listening, speaking, reading, and writing activities, students will develop their knowledge of basic food-related vocabulary and sentence structures, understanding of how to express food preferences, and skills in constructing and communicating simple opinions about food in Mandarin.	vocabulary, forming correct sentences using the given pattern, and engaging in conversations about their food preferences with accurate pronunciation and fluency.
How will this be assessed?		Workbook, worksheet, Assessment, Q&A	
Physical Education	Football	**Knowledge** • **Rules of the game** – Basic rules such as kick-offs, throw-ins, goal kicks, corner kicks, and fouls. • **Positions and roles**—Basic understanding of different positions (e.g., goalkeeper, defender, midfielder, striker) and their responsibilities. • **Tactics and strategies**—Introduction to simple tactics like passing into space, creating width, and defending as a team. **Understanding** • **Teamwork and cooperation**—Recognizing the importance of working together to achieve a common goal.	• **Teamwork and Communication**: Excellent students work well with others, pass the ball effectively, and talk to their teammates to organize play. • **Good Ball Control**: They can dribble the ball smoothly and keep it close to their feet, even when moving quickly. • **Accurate Passing**: They can pass the ball accurately to teammates using the correct technique, both short and long distances. • **Spatial Awareness**: They understand where to move on the pitch, find space, and position themselves well during play.

		• **Making decisions—**Understanding when to pass, dribble, shoot, or defend, and why. • **Fair play and respect—**grasping the values of sportsmanship, respecting officials and opponents. • **Evaluation and improvement—**understanding how to reflect on their own and others' performance to improve. **Skills** Students will learn: • **Ball control—**Dribbling with control, using different parts of the foot. • **Passing and receiving—**Using both feet to pass and receive accurately over short distances. • **Shooting**—Developing shooting technique, aiming at the target with power and accuracy. • **Attacking and defending**—finding space, moving into good positions, and supporting teammates, marking opponents, tackling safely, and intercepting passes.	• **Listening and Following Instructions**: They pay attention to the teacher, understand the rules, and follow them during activities and games. • **Supporting Teammates**: They encourage others, help build team spirit and play fairly without arguing or blaming. • **Enthusiasm and Effort**: They take part eagerly, stay focused and active, and show a strong desire to learn and improve. • **Positive Attitude**: They stay cheerful, try their best even when it's hard, and show respect to everyone.
How will this be assessed?		Practical observations	
Music	We are using music to tell short stories — combining instruments,	• **Knowledge**: Explore how music can represent actions, characters, or settings.	Students will perform short musical stories with clear structure and expression,

	voice, and movement to bring a scene or idea to life.	• **Understanding**: Link musical choices (tempo, pitch, dynamics) to parts of a story or mood. • **Skills**: Work in small groups to create short "musical scenes" using classroom instruments and sound effects.	demonstrating teamwork and creativity in their musical choices.
How will this be assessed?		Written and practical assessment	