IB EYP Unit of Inquiry – PK Year (4-5 years)

POI Curriculum Map – Language Skills Focus

Learner Population

There are 42 students in total in the grade level. They are in three different classes, each of which has fourteen students.

One girl's father is Korean, and she lived in South Korea for the first two and a half years of her life. She moved back to China and has lived with her mother and grandmother, who are both Chinese for two years. Korean and Chinese both remain first languages, with her English also well developed. She is in one class. The two other classes each have one student who are Chinese and have Chinese as their first language but were born in and lived in the United States before moving back to China one year ago. All three of these students hence have differences in their cultural background and experience, as well as experiences with language.

The rest of the students in the grade level are all Chinese also. Some may have lived in other areas of the China before but are all now living in Wuxi City, Jiangsu Province, near Shanghai, where the school is located.

There will be some difference in cultural background, particularly in the case of these three students. This must be remembered in the setting of activities. Many of the student's home towns are unique and form a part of their identify. Where possible, this needs to be remembered in the setting of activities.

There are five students across the grade level who are new to the school this academic year. The rest have been studying at the school either one or two years. The IB program was only introduced one semester ago. The two areas that have been explored are "How we change and how we are different to others?" under the IB transdisciplinary theme 'Who we are.' and "What other living things do we share the planet with?" under the IB transdisciplinary theme 'Sharing our planet'. This has provided explorations in the topics of growing up and how we change as we grow, other parts of our life experience that change, for example, seasons, as well as explorations of plants and animals and an introduction to the importance of not polluting or damaging the environment. Related English language was introduced and practiced here. Although production may still be developing, all students present at the school last year, had experience inquiring with English as an input language. The new students also have some experience with English from previous schools, although may need a little support to settle in initially.

Through further school activities, students are developing their skills, including fine motor skills, as shown through their art works, social and emotional learning playing and working independently and with friends, and early maths, working with shapes and numbers for example.

They have had much opportunity for free inquiry, play and expression, for example through their art work.

They will bring all of this to the new academic year.

All students in the grade level are in normal developmental ranges for all skills. There are no students identified with special needs.

Language Profiles

Due to the age of the students, we focus on speaking and listening in our consideration of language, both current level, and development and assessment throughout the year. We will use the stages of language development, based for example on Krashen and Terrell (1983).

There is a range of levels across the grade level, including in each class. These are from early in the speech emergence stage - stage 3 - for the newer students, to entering the advanced fluency – stage 5 - in the case of the two who have lived in the United States and a small number of others who have also had rich exposure to more native English environments.

All students are still English language learners. With the inquiry-based program taught and led in English, there is a focus on comprehensible input, with visuals, modelling and graded language, using techniques for example described by IRIS Center (2011).

With this, there will be differentiated scaffolds, supports and challenge for different levels with the activity and assessment.

For example, stronger students will have the opportunity to support the teacher in the creation of the English based environment and in supporting their classmates. During small group and individual interactions, they can be provided with more advanced grade language to challenge their vocabulary and listening comprehension. They will be challenged with extended expectations for production activities, including the use of more sentences and longer sentences.

Students still at earlier stages of English language development can be provided with increased supports, for example translanguaging, some L1 support as necessary for more challenging concepts, increased language modelling from the teacher, appropriately graded language during small group and individual interaction, and expectations catered to their current level during production activities.

All students also have the opportunity to express themselves and their ideas in multiple ways, as well as only language, for example, art work.

Introduction to Curriculum Map

The curriculum map is for the four programs of inquiry (POI) for the school year with a focus on language assessment and a note of the technology used is shown below.

Note that this is only one part of the school's program. Students also take part in a separate ESL program focused specifically on language development, and have specialist classes in swimming, art, science, library and cooking, some of which will be related to the POI content. They also have daily outdoor activities.

What is shown below is the core activities the whole class will follow together. There will also be learning centre time, in which many learning centres will provide activities, for example arts, science and math, also related to the UOI, for skills development. Students will work on their independent projects here and also have checklists for core activities that need to be completed. These activities will compliment the main UOI activities.

The curriculum map here provides a guideline, in particular for core project activities. Parts can be adapted, with areas explored in greater or less depth as necessary, based on student interests and needs.

With regards to language, students both practice and have formative assessment for listening and some speaking throughout the day.

A key focus in the assessment and goals here will hence be on speaking production ability.

Program of Inquiry	Language Skills Development Goals and Language Assessments	Sequence of Activities	Use of Technology Videos and songs, as well as the class projector screen will be used during group time as standard practice, so are not specifically included here.
How we express ourselves (September – November, *Semester 1*) **Central Idea:** People create signs and symbols to convey information. **Lines of Inquiry** - Symbols and signs in daily life. - The specific meaning of signs.	- All students able to make a target number of sentences in English to describe a picture they make of a sign. After students make a piece of art work for a sign they photograph during the **'Finding Out'** stage, they present their work to a small group. *Language has been taught before hand – colours, shape, name, of the sign, what the sign means.* Model sentences provided and practiced as necessary. - All students introduce a shopping list they have made by introducing the items they want to buy. During the preparation for the shopping trip during the **Finding Out** stage, students create their own shopping list. They present this to their group, using a minimum of the following sentences.	**Tuning In** - Students engage in a discussion in which they are presented with hypothetical (role-play) and real scenarios. They need to find where something is, for example, the bathroom in a shopping mall or in an unknown area of school. They are guided to the idea that they could look for a sign. This immediately shows the importance of signs. - Students study a song about 'Street Signs', presented with new types of signs and language. - Class mind map drawn about different types of signs we know. - Students complete two scavenger hunts in which they have to find signs and circle them off on their sheet. One hunt is in the school campus. One hunt is around a local community.	- Seesaw used throughout the unit to communicate with parents and also to create a portfolio of all student art work. Details and examples for all home assignments shared here. Further communication shared also. **This supports parental communication, but also the speaking domain as it forms a method for sharing speaking videos.** - Resources available on class iPads for students to explore during free choice project time. **These support further English exposure. They support the listening and can support the early reading domain. The Epic! books can also be used at home.**

- We design symbols and signs to convey information.	"This is my shopping list. I want to buy _____."
	Required language: Items that can be bought in a shop. Taught as necessary during creation of the shopping list.
	
	- All students introduce a sign they find in their local community, using at least three sentences.
	This is done as work at home at the end of the **Finding Out** stage. Two teacher examples are provided, which can be used as models.
	Required language: Names of signs, colours, shapes. Have been taught previously.
	
	- All students introduce at least one sign found in each of four locations in town and make at least one other sentence freely about each place.
	This is done during the 'Sorting Out' stage. Students introduce the cut and stick activity that they will make here. They will introduce it to a small group of three classmates. The make one sentence for each place to introduce a sign.
	A model is provided, "The _____ sign is in the _____." Then they make another sentence freely about what they can see in the place.
	Required language: Names of places. Names of signs. Taught before and during activity.
	
	- At the end of the unit, all students complete a minimum of three sentences at the end of October Open Mic in the **Acting** stage, length adapted based on English competence.
	As students are creating their projects during the **Going Further** stage, they continually practice communicating with the teacher about it. They then prepare for the final Open Mic performance. Students have freedom to create their sentences with teacher support and models as necessary.
	Required vocabulary: places in town, items in the place they are building, signs. This can be practiced and taught as necessary during the project creation.
		Finding Out
		- Students introduced to an activity in which books are used as a resource. They have pictures of signs, which they have to find in books in the Library.
		- Students complete a homework assignment. They find a sign of choice out and about in their daily life. They need to photograph it. Back at school, they use arts materials to recreate their sign from their photo.
		- Students visit a supermarket to buy items for a grade level picnic and identify signs there also.
		- For home practice over the end of September vacation, students do a video introduction of a sign.
		
		Sorting Out
		- Students discuss places in which signs can be found and make a mind map. Then for different types of signs they have discussed, they consider where they could be found.
		- Students complete a cut and stick activity. There is a picture of part of a town on an A3 piece of paper, with a park, hospital, fire station and supermarket. They cut out pictures of signs and then stick them in the correct place. They can finish by adding drawings, colour and further detail.
		
		Going Further
		• Investigate more about uses of signs in different places with visitors including the local police officers who talk more about road signs.
		• Students now work on a project. They go from individual signs to areas in the town. They each choose a place in town (for example, park or school).
		• Working in small groups, they build a model of this, using arts materials. As part of this process, they research more with the help of the teacher. They add signs in at the end.
		
		Reflecting
		• Students have a reflection discussion as a whole class.
		• They then create reflection mind maps in small groups, led by one teacher.
			• Books on the class Library from Epic! (getepic.com)
			  ▪ "Street Signs and Symbols"
			  ▪ "On My Way to School".
			• Songs and other videos used during normal lesson time made available to students.
			Examples include,
			  ▪ "Signs and Symbols |
			  ▪ Traffic Signs"
			  ▪ "Road Safety video || Traffic Rules And Signs For Kids || Kids Educational Video"
			  ▪ "Learn Road Signs Song for Children
				Signs, Signs Everywhere |Patty Shukla Street Signs Road Safety"
				• eBooks of books of street signs in China.
				These can all provide further reference material for students to use and practice independently.
				
				- Camera used during home assignment to take a picture of signs. This supports technology literacy in the form of photography skills.
				Students will later describe their photos and artwork they make from them to each other, so support is provided in the speaking and listening domains.
				
				- During different class activities, especially the final project, making a place in a city, students can use the class iPads to take their own photos and videos to document their work.
				This practices technology literacy in the form of video and photo taking.
				The domains of speaking and listening can be supported as students talk about their documentation as they progress through the project.

<table>
<tr>
<td></td>
<td></td>
<td>

Acting
- Students introduce parts of their town model project on stage at the school's October 'Open Mic' event. (This is a monthly event in which all students have the opportunity to present, perform or introduce on stage.)
- Students make signs to be put around school for real application. For example, "Walking on the stairs."

</td>
<td>

- During the final project, making a place in a city, students can work with the teacher to search for pictures on the internet using the iPads and Laptops.
This practices technology literacy in looking up information on the internet.
The domains of speaking and listening are supported as students will discuss with the teacher what they are looking up. Reading is also supported as they can be showed the words forms for the sentences and words they are searching.

In preparation for the presentation of their project at the final "Open Mic" event, students can work with the teacher to prepare the PPT of the photos of their project.
This will provide support in the speaking and listening domain as students are preparing for presentations.

</td>
</tr>
<tr>
<td>

Who we are
(November - January, *Semester 1*)

Central Idea:
Choices people make affect their health and wellbeing.

Lines of Inquiry
- Our hobbies
- Different choices lead to different consequences
- How I can take responsibility for my own health.

</td>
<td>

- Students each make at least two sentences to describe each of 5 daily routine pictures to a teacher. (Extended length for students to challenge them as necessary.)
This will be completed as part of the daily routine book students create during the **Tuning In** stage. They will choose at least five daily routine activities that they think are healthy and stick on a page, then putting the pages in order. They each tell the teacher what is happening in each picture in their book, giving at least two sentences for each. Teachers prompt with questions and guide with sentence models as necessary.
Required language: Names of daily routine activities – "get up", "eat food", "eat snack", "eat breakfast", "sleep", "do the morning check", "listen to a story", "play outdoors", "play indoors" as a minimum taught in the activity introduction.

</td>
<td>

Tuning In
- Create group mind map with students on how we can keep ourselves from getting sick.
- Create group mind map on what it means to be healthy.
- Students create a book related to a healthy routine.
They have a series of pictures from a daily routine. They choose which they think are healthy.
They then put these healthy routines in order for when they think they will happen in the day. They stick these each on a page and put the pages in order to make a book. They make sentences to describe what is happening on each page for the teacher to write. They can later present to the class.
- Students later create a self-assessment for the book. They self-assess their English speaking, writing of their name, cutting, gluing and coloring.

Finding Out

</td>
<td>

- Seesaw used throughout the unit to communicate with parents and also to create a portfolio of all student art work.
Details and examples for all home assignments shared here. Further communication shared also.
This supports parental communication, but also the speaking domain as it forms a method for sharing speaking videos.

- Resources available on class iPads for students to explore during free choice project time. **These support further English exposure. They support the listening and can support the early reading domain. The Epic! books can also be used at home.**
- Books on the class Library from Epic! (getepic.com)
  - "Eating Healthy"
  - "Healthy Living: Fruits"
  - "My Healthy Body"
  - "Eat Healthy Foods"

</td>
</tr>
</table>

- Students each make a minimum of five sentences to introduce a book to a small group of classmates.

This will be completed as part of the daily routine book students create during the **Tuning In** stage. As a final stage, after students have completed their books, including having a teacher write their sentences, they will then present their book freely to a small group of classmates.

- Students each introduce a hobby using a minimum of five sentences, including the name of their hobby, and why they do it.

This will be completed in collaboration with home, during the **Finding Out** stage. Students complete a video introducing their hobby, which can also include clips of them engaging in their hobby.
Two example videos from the teacher are provided. These include the model sentences, "My hobby is _____. I like _____ because _____."
Required language: Names of multiple common hobbies taught during activity introduction. Students supported with names of unknown hobbies as necessary.

- Students each make ten sentences to describe how each of ten different hobby activities make them feel, one sentence for each.

Completed as students share the work they have done drawing how different hobbies make them feel during the **Sorting Out** stage.
Alternative model sentences provided:
"_____ makes me feel _____."
"_____ makes me _____."
More able students encouraged to elaborate on their reasons as necessary.
Required language: Names of new hobbies that have come from students sharing. Key feelings review – happy, sad, relaxed, bored, lonely, focused.

- Students look through a books in the classroom library and find pictures they think are related to health. They take a photo. Later they use artistic materials to recreate the picture.
- Concept of hobbies introduced and brainstormed. It is discussed why hobbies are important for health.
- As out of school work, students make a video introduction of them participating in a hobby of their choice.
- Use books to explore different aspects related to health in more depth, for example 'Germs'

Sorting Out
Part 1
Going back to our hobbies, we focus on hobbies and emotions.
- Review of different types of emotions, including the English words.
- Introduction discussion on how different emotions can make us feel.
- For all the different hobbies from the class, as students shared in their videos from the "Finding Out" stage, students draw a picture indicating how this activity would make them feel.

Part 2
Split area of health we have studied into three different categories.
"Hygiene and not getting sick"
"Thinking and feeling" (Mental health)
"Growing and being strong" (physical health)
- Have short class discussion. Show different activities related to health. Students choose which category they think an activity falls in to and then share their reasons.
- Students each draw a picture for activities related to each of the three aspects of health, to create a large class mind map.

Going Further
- Two options for a project related to the unit.

▪ "Staying Healthy"
- Songs and videos used during normal lesson time made available to students. For example,
  ▪ "Keeping Fit and Staying Healthy"
  ▪ "Why do we need sleep?"
These can all provide further reference material for students to use and practice independently.

- In the classroom, there will be several models relating to health to be used in exploration activities.
  - One big and one small model of the human body with internal organs that can be taken out and put back in.
  - A model of an eye.
  - A model of ears.
  - A model of teeth.

These provide support in the speaking and listening domains, due to interactions that can take place when working with them. There is also support in the early writing domain, as students will practice fine motor skills working with the different parts, and in any related art work and sketches.

- During different class activities, especially the final project, making a book or human body model, students can use the class iPads to take their own photos and videos to document their work.
This practices technology literacy in the form of video and photo taking.
The domains of speaking and listening can be supported as students talk about their documentation as they progress through the project.

- In preparation for the presentation of their project at the final "Open Mic" event, students can work with the teacher to

- Students each able to use a full sentence to introduce at least one activity that they think is beneficial for each of the following, with a reason:
  "hygiene and not getting sick"
  "thinking and feeling"
    "growing and being strong"

After students have drawn their pictures for each of these during the "Sorting Out" stage, individual documentation time will be spent with teachers for them to describe. Teacher provides a model. Prompting can be provided as necessary.
Required language: The names of each of these categories will be taught as necessary.

- All students make at least five sentences to describe a project they have made on health. (Extended length for students to challenge them as necessary.)

Students introduce their final project – either the book or human body to a teacher different to the one who supported them with the project.

- At the end of the unit, all students complete a minimum of five sentences on stage in front of other teachers at the Open Mic in the **Acting** stage, length adapted based on English competence.

Three weeks before the end of the unit, students are introduced to the Open Mic and requirements and given one week to choose a piece of work from the unit that they would like to introduce. Examples and models are provided. Individual time is then spent with them to help them plan what they will say.

- Students each make one sentence to say one thing they learnt during the unit and one sentence to say one question they still have.

This is done during the activity in **Reflection** at the end of the unit.

a) Students individually create a more general health book in which they choose aspects of health themselves to introduce. (Individual)
b) Students work in a group. They draw a large picture of a human body. Around the picture, they make labels. One label is for one part of the body. On the label, the student draws what is healthy for that body part. For example, if drawing a picture to label the legs, they will draw a picture showing what they think makes the legs strong and healthy.

Reflecting
- Class discussion to review the key content they covered during this unit.
- Students complete two individual drawings, one showing what they have learnt about health, and one showing questions they still have.

Action
- Students present work they have completed during the unit at the January 'Open Mic' event.
- Students continue to practice concepts related to health, keeping a food diary and an exercise diary over the following winter vacation.

prepare the PPT of the photos of their project.
This will provide support in the speaking and listening domain as students are preparing for presentations.

Sharing our planet (February - April, *Semester 2*) **Central Idea:** People take responsibilities from plants and can gain resources from them. **Lines of Inquiry** - The structure and function of plants. - Plants provide resources for people. - People take care of plants.	- Students make at least five sentences to introduce a rainforest picture they have put together. This is done during the cut and stick rainforest activity during **Tune In**. Students introduce their work to the teacher they are working with. A teacher model is provided first. - Students each make at least one sentence to say what they know and one sentence to say what they want to know about the topic of plants. This is done during the KWL during the **Tune In** stage. Students introduce their sentences to the small group they have been sitting with during the completion of the charts. - Students can use English to introduce four factors that plants need to grow. This is completed during discussion as students are planting and taking care of their plants during the unit, starting at the **Tune In** stage. - All students introduce the stems, roots and leaves and give a minimum of two further sentences to describe a plant they have made or drawn. This is completed as students introduce the plant they made with a partner during the **Finding Out** stage to a small group in the consolidation session. "Here is the stem. Here are the roots. Here are the leaves." used as a model sentence. - All students introduce a minimum of five foods that come from plants, saying which part of the plant we get them from. This is completed during small group discussions as a follow up to the **Sorting Out** activity, in which students sort plant based food based on the part of the plant they come from.	**Tune In** - We watch a series of videos. The first is related to why animals need plants. It focuses on rainforests and that animals live in different sections of the forest. Discussions are had about this video. The purpose is to activate and extend prior knowledge for discussion. As a follow-up activity, students have a picture of a rainforest. They then have other pictures, some of which will be of objects that belong in a rainforest – a snake – some which might not – a car. They sort which ones belong in the rainforest and stick these on to their rainforest picture. - We now have a discussion and make a mind map on the ways in which humans need plants. Use a video for support as necessary. - Students draw pictures to complete the "Know (K)", "Want to Know (W)" and "Learnt (L)" for plants. At the beginning of the unit, students plant at least two plants – tomato and beans are recommendations. They take care of these and keep a record log of their growth throughout the unit. As part of this process, the things a plant needs to grow are discussed and introduced. **Finding Out** - As a home assignment, students take a photo of a plant of choice. Back at school we share these. Students then use artistic materials to make their own artistic recreation. We take this as an opportunity to use books and resources to explore different types of plants in more detail. - We use videos and modelling to explore the different plant parts – stem, roots and leaves. As a follow up to this, have a small project in pairs. Students choose to create a plant model that must clearly include the roots, stem and leaves, and can use either drawing or construction materials.	- Seesaw used throughout the unit to communicate with parents and also to create a portfolio of all student art work. Details and examples for all home assignments shared here. Further communication shared also. **This supports parental communication, but also the speaking domain as it forms a method for sharing speaking videos.** - Camera used during home assignment to take a picture of plants. This supports technology literacy in the form of photography skills. **Students will later describe their photos and artwork they make from them to each other, so support is provided in the speaking and listening domains.** - During explorations, plant identification Apps can be used, for example, for example iPlant. This supports students develop research skills and technological literacy as they can use the class iPads to identify plants around school and during outdoor learnings to the park and a botanical garden. **This can support development in the speaking and listening domains as students are able to discuss the plants they see and also early reading or writing domains if these are used as the basis for looking at or practicing writing word forms.** -Resources available on class iPads for students to explore during free choice project time. **These support further English exposure. They support the listening and can support the early reading domain. The Epic! books can also be used at home.** - Books on the class Library from Epic! (getepic.com) ▪ "Plants!"

Model the sentence structure,
"_____ is from the _____."
"_____ is a (fruit/seed)."
For example,
"Potato is from the roots.
*Required language (taught during the earlier part of the **Sorting Out** phase and introduced earlier also): roots, flower, stem, seeds, leaves, fruit.*

- All students able to introduce an AB pattern they have drawn, using the structure "(A),(B),(A),(B). This is an AB pattern.
Students introduce the AB pattern they have made to a teacher during the AB patterns activity during the **Sorting Out** stage.

- All students use one sentence to describe what they 'See', one sentence to describe what they 'Think' and one sentence to describe what they 'Wonder' – a question they have – about a habitat picture.
Completed as part of the 'See, Think, Wonder' activity during the **Going Further** stage. First in the group, and then in the pairs, for the habitat picture they are studying, students first draw a picture for each of what they see, think and wonder, and then introduce it to the teacher. For the paired one, this is presented to the class, which is where students show they can introduce the sentences.
Examples and sentence models provided.
"I see _____."
"I think _____."
"I wonder _____."
Students with higher competence in English, stretched to give extended detail.

- At the end of the unit, all students complete a minimum of seven sentences in a video for the March Open Mic in the **Acting** stage, length adapted based on English competence.

Sorting Out
- We extend our ideas about plant parts to also include flowers, seeds and fruit.
- Note that for different parts, different parts will provide food we can eat.
 Create a class mind map, discussing examples of foods that are from each of the different types of plant parts.
- Class project. Each student chooses a type of plant that gives us food. On a long piece of fabric (4 metres long), students paint their plants next to each other.
  (a) First a group sorting activity.
  Students work in groups of three.
  They have pictures of all the different types of plant chosen by people in the class. They cut these out and label them according to which part of their plant (flower, fruit, seed, leaf, stem, root) we can get food from.
  (b) We complete the class painting.

Going Further
- Aside to introduce concept of patterns using plants. Look at and discuss patterns we can see in plants and nature.
 Formalize this to introduce basic pattern types – "AB", "ABC", "ABB" and "AAB".
 Students work in pairs to create the pattern type asked for by the teacher using loose materials.
 Students create their own AB patterns on paper.

Focus on 'Habitats' and the skill for showing thinking of "See, Think, Wonder". (Extend beyond plants to other living things.)
- Students use song and video to be introduced to different habitats. Create a mind map of what we know about the different habitats.
- Continues to explore different habitats through books.
- Students complete two "See, Think, Wonder" activities to be introduced to this routine and

- "National Geographic Kids. Seed to Plant"
- "Plants are Alive!"
- "How do Plants Survive?"
- "How are Plants Helpful?"
- "Iconic Plants of the World 1"
- "Iconic Plants of the World 2"
- Videos and PDF's of multiple books from the school's shared drive on the topic of plants.
- Other songs and videos. For example
  - "The Habitats Song"
These can all provide further reference material for students to use and practice independently.

- During different class activities, students can use the class iPads to take their own photos and videos to document their work. This practices technology literacy in the form of video and photo taking.
The domains of speaking and listening can be supported as students talk about their documentation as they progress through the project.

- Throughout the inquiry of the unit, students can be supported by the teacher to look up plants and habitats they might be interested in. This can also be done as research for the "Open Mic" presentation if students want to introduce specific plants.
Technology literacy is practiced here.
Supporting in the speaking and listening domain is provided as students can discuss their research. Early reading is also supported as students are exposed to word and sentence forms.

- In preparation for the presentation of their project at the final "Open Mic" event, students can work with the teacher to prepare the PPT of the photos of their project.

	For this Open Mic, students have a choice between introducing a piece of work from the unit, introducing a plant they are taking care of and growing, introducing different types of plant, and introducing a technical aspect of plants – either different plant parts, or what plants need to grow. Begin discussing with students three weeks before the end of the unit. They have one week to decide what they would like to introduce in the last week of the unit for the Open Mic. - All students introduce use one sentence to say something they have learnt about plants. Completed during doing of "Learnt" part of KWL chart during **Reflection**.	activity. The first they do in groups with teacher guidance. The second, they do in pairs with more independence from the teacher. - Class project. Use arts materials to build habitats in the classroom. **Reflecting** - Class review and discussion on what we have covered in the unit. - Students complete the "Learnt" part of their KWL charts. - At the end of this unit, students create a self-assessment. They self-assess their English speaking, presenting, working with others, listening and "drawing and making". **Acting** - Students introduce a piece of work or knowledge related to plants at the March Open Mic event. This time it is done in the means of a video. - Students add some of the plants they have been growing to the school's plant garden.	**This will provide support in the speaking and listening domain as students are preparing for presentations.**
How the world works (May – June, *Semester 2*) **Central Idea:** Humans learn the optical phenomenon and apply them in various situations. **Lines of Inquiry** - The features of light and shadow. - The change of light and shadow. - Various applications of light phenomena in our lives.	- All students able to use at least two sentences to describe what they know about light and two sentences to describe what they know about shadow. Completed during introduction of mind maps created in the **Tuning In** stage to teachers. - All students able to use at least one sentence to say something they know about the overall topic of light and shadow, and one thing they want to know. Completed during sharing of their KWL charts with teachers and classmates during the **Tuning In** stage. Students able to describe whether each of eight objects are transparent, translucent or opaque using a full sentence.	**Tuning In** - Over the first weeks of the unit, take students outside on different days. *These are beginning to get students to think about general principles related to light and shadow through a natural context.* First on a hot day. Elicit that the sun is giving us bright light and heat and that we could got to the shade (shadows) to be cooler. Ask why the shade exists to elicit the idea of shadows. Second on a cloudy day. Discuss why shadows are not very big that day. Following this, go outside again on a clear day to make the comparison with the clearness of shadow and the reasons for it. - Watch videos related to both light and shadow introducing key concepts. For example, light sources and how light travels, and sizes of shadows. - Students build up the skill of building a mind map with more direct student involvement.	- Seesaw used throughout the unit to communicate with parents and also to create a portfolio of all student art work. Details and examples for all home assignments shared here. Further communication shared also. **This supports parental communication, but also the speaking domain as it forms a method for sharing speaking videos.** - Connecting cubes are used as a technology for introducing students to the concepts of and practicing, measurement. **This supports mathematical development and also provides support in the speaking domain as students make sentences to say how long different objects are. Using the connecting cubes, students are practising their fine motor skills, supporting early writing in the writing domain.**

Carried out during follow-up discussion on investigation into transparency during the **Sorting Out** phase. Sentence models provided.

"_____ is transparent."

"_____ is translucent."

"_____ is opaque".

Required language: The terms 'transparent', 'translucent' and 'opaque', taught as an early part of this activity.

- Students able to describe the length of an object in terms of number of connecting cubes or other uniform small objects.

Carried out during the investigation into length in the **Finding Out** stage.

Sentence model provided,

"_____ is (number) (connecting cubes) long."

- Students able to make predictions for experiments.

This will be carried out as part of the experiment activities throughout the unit. Relevant language to be taught during the unit. Two sentence models provided.

"I think _____."

"I predict _____."

- At the end of the unit, all students complete a minimum of ten sentences on stage in front of other teachers at the Open Mic in the **Acting** stage, length adapted based on English competence.

Three weeks before the end of the unit, students are introduced to the Open Mic and requirements. They need to introduce at least ten sentences. They can either introduce pieces of art work, an experiment we have done, or talk about what they have learnt about light and shadow. They then have one week to decide what they would like to introduce and are given support in planning and preparing as necessary.

First, build a whole class mind map for 'Light'. Each student draws their own pictures.

Second, they build a small group mind map on Shadow, with teacher only facilitating.

- Students complete the "Know" (K) and "Want to Know" (W) and "Learnt" (L) sections on their KWL charts for this unit.

Finding Out

- Pieces of art work with an end goal of experimenting with shadows.
  (a) Making a "flower garden". Take transparent pieces of acetate paper, cut them into flower shapes and then draw the flowers on. Put these onto a polystyrene base. Then a torch can be shone on to experiment with shadows.
  (b) Make a set of "tracery windows". Take a piece of paper and cute out the shapes of three windows along the length. Students stick a piece of transparent acetate film along the back. They then draw different patterns on it. This gives another piece of art that shadows can be experimented with on.

- Big investigation into how shadow sizes change. Focus on how the position of a light source (angle to the object) affects the shadow size. For example, if the light source is up above the object, the shadow will be short, but if it is to the side, the shadow will be long.
Students first make predictions.
Then they investigate, working with a partner. They hold a light source in different positions and draw the shadow.
They compare the sizes. As part of this process, they are introduced to the idea of measuring, measuring the shadows with connecting cubes.
Finally, they draw a conclusion and reflection drawing.

Sorting Out

- Focus on sorting objects in two (very related) ways.

- Lots of torches are used as a light source during various the various investigations into light and shadow over the unit. **This provides support in the speaking and listening domain as students discuss their investigations and also in the writing domain, as students are practicing fine motor skills, needed for writing, during the investigations.**

– A small, portable screen for a shadow puppet theatre will be used as part of the classroom environment. **This provides support in the speaking and listening domains as students explore storytelling.**

- Resources available on class iPads for students to explore during free choice project time. **These support further English exposure. They support the listening and can support the early reading domain. The Epic! books can also be used at home.**

- Books on the class Library from Epic! (getepic.com)
  - "Playing with Lights and Shadows"
  - "I See Light"
  - "Light Helps Me See"
  - Light and Dark

- For example,
  - "Curriculum | What is Light? | Tigtag"
  - "Shadow | The Dr. Binocs Show | Educational Videos For Kids"
  - "The LIGHT SONG | Science for Kids | Grades K-2"
  - "Shadow Song | Lights & Shadow Rhyme for kids | Bindi's Music & Rhymes"

These can all provide further reference material for students to use and practice independently.

		(a) Whether objects are "transparent", "translucent" or "opaque". Students introduced to these words. For a set of objects, they first make predictions as to whether they think they will be transparent, translucent or opaque. Then they carry out an investigation to find out and compare their results to their predictions. (b) Whether objects will have shadows. Discuss the reasons with students first. Then guide them to test some of these ideas. For example, if students predict it is about size of the object, set up an experiment to test objects of different sizes. Use this to help students verify the ideas they had or see why they may not be true in all cases. Guide students in coming up with reasons as necessary. At the end, guide students to see the link with transparency as per (a). **Going Further** - Explore a deeper scientific concept relating to light and shadow in terms of the natural world. Why do we have day and night? Students can first think and discuss their ideas? Misconceptions related to these can be addressed as necessary. Next, use a combination of video and modelling to help students see the concept of the Earth rotating and how that gives night and day. To go further, explore the concept of the position of the sun in the sky to, observing at different times in the day, and referring back to our modelling of the Earth's rotation. Also relate back to what we have seen about the size of shadow under different light positions. The concept of compass directions can be introduced also, time dependent. - Explore different uses of light and shadow.	- During different class activities, students can use the class iPads to take their own photos and videos to document their work. This practices technology literacy in the form of video and photo taking. **The domains of speaking and listening can be supported as students talk about their documentation as they progress through the project.** - In preparation for the presentation of their project at the final "Open Mic" event, students can work with the teacher to prepare the PPT of the photos of their project. **This will provide support in the speaking and listening domain as students are preparing for presentations.**

| | | (a) Be introduced to the concept of shadow puppets. Make our own shadow puppets and perform stories. Outdoor learning to a shadow puppet theatre.
(b) Making a sundial.

Reflection
- Review of key concepts explored as a class.
- Using the mind map skills explored earlier in the unit, students work in pairs to make a mind map about what they have learnt throughout the unit.
- As a final reflection, students then complete the "Learnt" part of their KWL charts.

Action
- Students have the opportunity to present a piece of work of their choice in the school's June Open Mic event.
- Students have the opportunity to put pieces of work they have completed up around the school for the end of year presentation session for other grade levels to see and learn from. | |

Reference

Krashen, S. D., & Terrell, T. D. (1983). *The natural approach: Language acquisition in the classroom*. Alemany Press.

The IRIS Center. (2011). *Teaching English learners: Effective instructional practices*. https://iris.peabody.vanderbilt.edu/module/ell/

GetEpic! (n.d.). *GetEpic!* [Website]. Retrieved June 22, 2025, from https://www.getepic.com/

Teacher Lis TV. (2022, September 10). *Signs and symbols | Traffic signs* [Video]. YouTube. https://www.youtube.com/watch?v=YQuJTA9Z-Eo

learning junction. (2018, March 28). *Road safety video || Traffic rules and signs for kids || Kids educational video* [Video]. YouTube. https://www.youtube.com/watch?v=_NeEF1fwT4k

Patty Shukla Kids TV. (2023, December 13). *Learn Road Signs Song for Children | Signs, Signs Everywhere* [Video]. YouTube. https://www.youtube.com/watch?v=78v2EtmHVcg

Next Generation Science. (2020, December 8). *Keeping fit and staying healthy* [Video]. YouTube. https://www.youtube.com/watch?v=bwSJE7UqZf4

SciShow Kids. (2017, June 21). *Why do we need sleep?* [Video]. YouTube. https://www.youtube.com/watch?v=_aAmaCeq9v4

Hopscotch. (2018, June 29). *Habitats song* [Video]. YouTube. https://www.youtube.com/watch?v=byvf7jwdvOI

Twig Science Reporter. (2015, January 13). *Curriculum | What is light? | Tigtag* [Video]. YouTube. https://www.youtube.com/watch?v=1PsHHKwtXQU

Peekaboo Kidz. (2015, April 8). *Shadow | The Dr. Binocs Show | Educational videos for kids* [Video]. YouTube. https://www.youtube.com/watch?v=lOIGOT88Aqc

GenerationGenius. (2019, December 12). *The LIGHT SONG | Science for kids | Grades K–2* [Video]. YouTube. https://www.youtube.com/watch?v=kmxhbT9a2jY

Bindi's Music & Rhymes. (2023, May 13). *Shadow song | Lights & shadow rhyme for kids | Bindi's Music & Rhymes* [Video]. YouTube. https://www.youtube.com/watch?v=8QYz2jJjz38