# CREATORS 创作者 PROJECT BOOK

' 虫子的一生 A BUG'S LIFE '

2022.9 – 2022.12

荟同

Creators Project Team!

Creators teachers

English Teacher
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YOU

Students

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INTRODUCTION!

Welcome to Creators' "A Bug's Life" project book. In this book you will join us on our journey starting from the passion for bugs and bug catching some of us already held at the beginning of the year. Gradually many of the rest of us explored this interest. We progressed to identifying and classifying bugs and plants, exploring and considering methods for bug catching, studying bugs, including the ladybug, in depth, raising a chrysalis to a butterfly, visiting concepts including hibernation, practicing art and construction along the way. The journey was driven by the continually emerging interests of the students.

欢迎来到创作者的"虫子的一生"项目书。你将随着孩子们的脚步，从学年伊始，对虫子和捕捉虫子的热情开始，逐步加入我们的旅程。渐渐地，我们中的许多人也开始加入泰索虫子。我们继续识别和分类昆虫和植物，探索和考虑捕捉昆虫的方法，深入研究虫子，包括瓢虫，把蛹养成蝴蝶，冬眠等，并在此过程中练习艺术和建筑。学生们历久弥新的热情和不断涌现的新的兴趣推动了这段旅程。

The symbols key on the next page will help you identify the stages of the 'Huitong 6 E's Inquiry Cycle' used throughout the project as well as where we followed the schools 'Essential Practices'. Throughout the book we will draw attention to the creative and critical thinking of students and skills being developed. This project book will use blue colour font to highlight skills, knowledge and thinking being developed.

下一页上的"符号解读"将帮助您识别整个项目中"苏州荟同学习路径"的各个阶段，以及我们遵循学校"六大核心要素"的地方。在整本书中，我们将重点放在学生的创造性和批判性思维和正在开发的技能上。本项目书将使用蓝色字体突出技能，知识和正在开发的思维。

You will also find QR codes in this book that link to videos on Baidu Netdisk. You can scan these with your phone to see and listen to some of the learning in action.

你还可以在这这本书中找到百度网盘视频的二维码链接。你可以用手机扫描这些视频，看看并听一些实际的学习内容。

The book is written in both English and Chinese. Not all the information is translated but key descriptions, quotes and words are translated. Also the book is written in chronological order, we focused on how the project develops with kids' interests.
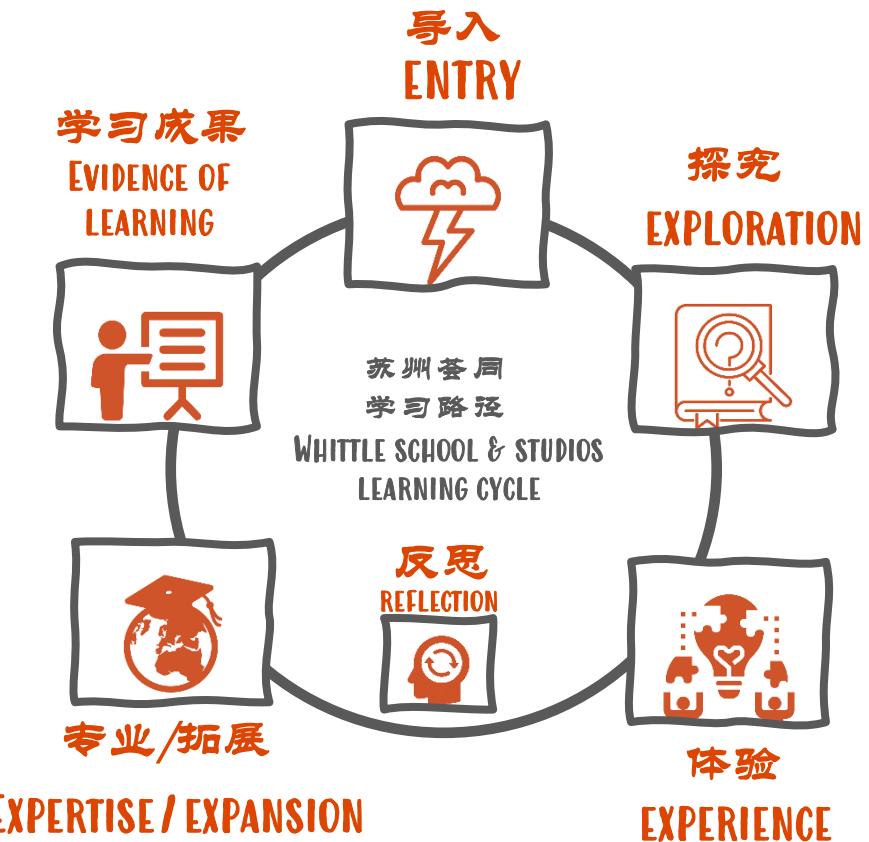
这本书是用英语和汉语写的。不是所有的信息都翻译了，但关键的描述、引用和单词都翻译了。此外，这本书是按时间顺序写的，我们关注的是项目如何随着孩子们的兴趣发展。

The children and teachers hope you enjoy learning about our journey during this semester..

希望大家享受这一个愉快的项目学习之旅！

符号解读! SYMBOLS KEY!
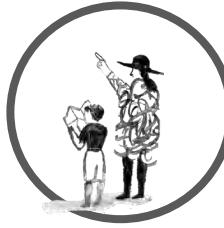
老师的引导想法，问题和假设。
TEACHER WONDERINGS, QUESTIONS AND HYPOTHESES.

导入
ENTRY

学习成果
EVIDENCE OF LEARNING

探究
EXPLORATION

苏州荟同
学习路径
WHITTLE SCHOOL & STUDIOS LEARNING CYCLE

反思
REFLECTION

专业/拓展
EXPERTISE / EXPANSION

体验
EXPERIENCE

发展个性化的学习之路
**CHILDREN FOLLOW PERSONALIZED LEARNING PATHWAYS**
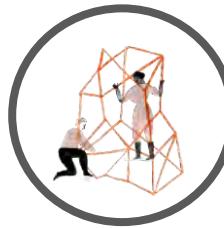
源自孩子自身兴趣的课程
CURRICULUM EMERGES FROM THE CHILDREN

教师也是学生和研究者
TEACHERS ARE STUDENTS AND RESEARCHERS

浸入式语言学习
GLOBAL CITIZENSHIP STRENGTHENS IDENTITY AND PURPOSE

课堂无处不在
THE CLASSROOM IS EVERYWHERE

家长是孩子成长的亲密伙伴
FAMILIES ARE CLOSE PARTNERS

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荟同幼儿园六大核心要素！ELC Essential Practice！

发展个性化的学习之路
CHILDREN FOLLOW PERSONALIZED LEARNING PATHWAYS

我们关注孩子的全面发展，注重因材施教，逐步培养文化基础、自我发展和社会参与这三大领域的基本能力。

We focus on the holistic development of the child—guiding a personalized connection to the world of knowledge, the world of self, and the world of humanity.

源自孩子自身兴趣的课程
CURRICULUM EMERGES FROM THE CHILDREN

受世界先进的瑞吉欧教育理念启发，我们采用项目式生成性课程，与幼儿一同丰富课内体验，通过观察与倾听他们的想法，不断完善学习体验。师生共同回顾每个学习项目，继而开始新的尝试。

With Reggio Emilia inspiration, we use emergent, project-based curriculum to co-create with children, observing and listening to them, and constantly evolving learning experiences. Students and teachers together self- reflect and iterate.

教师也是学生和研究者
TEACHERS ARE STUDENTS AND RESEARCHERS

在关注学生学习的同时，我们也同样注重教师的学习。我们鼓励教师建构自己的个性化的专业发展道路，以孩子一般的好奇心和兴趣来感受世界。

We value teacher learning as much as student learning. We encourage teachers to construct personalized professional development pathways and encounter the world with the same curiosity, interest, and wonder as the children they teach.

浸入式语言学习
GLOBAL CITIZENSHIP STRENGTHENS IDENTITY AND PURPOSE

幼儿园阶段的语言重点主要为口语和文化背景知识，帮助学生积极、自在地融入英语文化环境中。每天，学生都将通过多元化的活动、故事、诗词、歌谣和游戏不断练习英语听力和口语。

Global and cultural competencies are prioritized for our students and teachers through diverse experiences and partnerships. Along with a primary focus on the spoken language and cultural context of the host campus, students actively and comfortably participate in Chinese and English language and culture.

课堂无处不在
THE CLASSROOM IS EVERYWHERE

现实环境对孩子具有耳濡目染、潜移默化的作用。我们会把线上和线下的真实场景作为课堂，为学生带来包容、丰富、灵活的文化学习体验。

The physical environment teaches. Daily, we use the broader physical and digital world as our classroom, for inclusive and culturally dynamic learning.

家长是孩子成长的亲密伙伴
FAMILIES ARE CLOSE PARTNERS

我们会让家长成为我们的亲密伙伴，在家里延续学校的学习乐趣，这也有助于增强孩子们学习的后援支持。

We engage families as partners to develop joyous learning at school and at home, and to help strengthen the network of support.

From the very beginning of the year, many of us have been fascinated by the bugs we have found in the classroom. This builds up our awe and wonder about the beauty of nature and living things.

从学年一开始，我们中的许多人就被我们在教室里发现的小虫子迷住了。这建立了我们对自然和生物之美的敬畏和好奇。

September 6th (09/06)
Belada, Galen and Anna discuss how they could use the classroom construction materials to create a home for the bugs in our classroom.

Belada, Galen和Anna讨论如何使用教室建筑材料为我们教室里的虫子创造一个家。

They are practicing their mathematical thinking as they consider how the pieces could fit together. Also their communication skills and group collaboration.

他们在练习自己的数学思维，思考如何将这些碎片组合在一起。还有他们的沟通能力和团队合作能力。

Galen: "*It's too small.*"
Galen: 它太小了。

Teacher ponderings and wonderings. 老师沉思和好奇
Can we go further with building of homes? Where can we go with habitats? 我们能在建造房屋方面走得更

远吗？孩子们会联想到栖息地吗？

September 7th (09/06)
With this developing interest in bugs, today marks the first bug hunting session outside.
随着对虫子的兴趣不断发展，今天标志着第一次在室外寻找虫子。

Anna, Galen, Belada, Lisa and Yoyo all search together in the grass and drains.
In searching, they are practicing their attention to detail and observation skills
Anna, Galen, Belada, Lisa和Yoyo一起在草地和下水道里寻找。
在搜索过程中，他们在练习对细节的注意和观察技巧。

Anna has a water gun to slow the bugs down. Belada has a net to catch it.
Together, they are practicing team cooperation and division of tasks.
Anna拿着水枪让虫子慢下来。 Belada有张网来抓它。
他们一起练习团队合作和任务分工。

September 14th (09/14)

Our bug catching continues, but we are also beginning to observe further living things outside. Today we find a mushroom. We bring it inside and make observations, using Chinese here.

我们继续捕捉昆虫，但我们也开始观察外面更多的生物。今天我们发现了一个蘑菇。我们把它带进来，进行观察。

Elina: "*It's smelly.* 好臭啊."

Anna: "*It's crispy.* 它很脆"

Galen: "*It's cold, hard and slippery.* 摸起来很冷，硬硬的，还很滑。"

This is practicing ability to make scientific observations.
这是在锻炼科学观察的能力。

EXPLORATION

<u>*Teacher ponderings and wonderings*</u>老师沉思和好奇

Could we take observation and classification further? 我们可以进一步观察和分类吗?
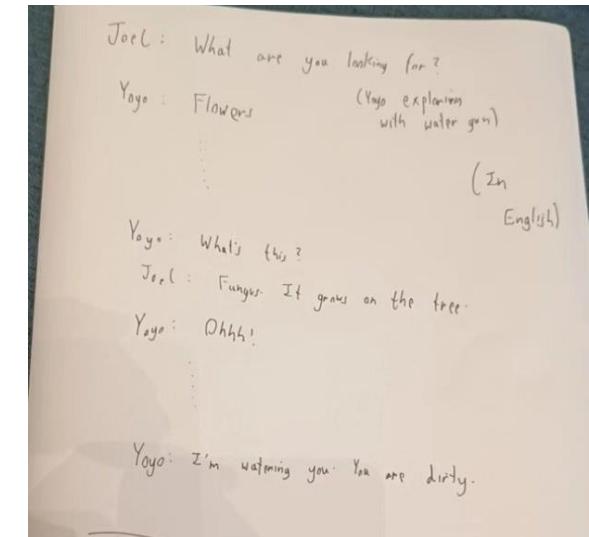
September 15th (09/15)

In a break from bug hunting, Yoyo begins a new endeavour searching for flowers during outdoor play.
在捕虫的间歇，Yoyo开始了一项新的尝试，在户外玩耍时寻找花朵。

EXPLORATION

She develops her English speaking as she talks to Teacher Joel about her activities, as per the anecdotal notes.
她在和Joel老师谈论她的活动时提高了她的英语口语，就像轶事笔记一样。

Joel: What are you looking for?
Yoyo: Flowers (Yoyo explores with water gem)
(In English)
Yoyo: What's this?
Joel: Fungus. It grows on the tree.
Yoyo: Ohhh!
Yoyo: I'm watering you. You are dirty.

September 20th (09/20)

The evolving interest in flowers continues. Previously during outdoor play, Yoyo, Galen, Belada and Elina had come running over during and asked "What kind of flower is it?" We took pictures on the "Xingse App" and identified them as "Tianrenju".
孩子们对花的兴趣还在不断演变。之前在户外玩的时候，Yoyo、Galen、Belada和Elina跑过来问：“这是什么花?”我们在“形色App”上拍照，并识别为“天人菊”。

They are stretching their curiosity about the world around them. Also their passion for gaining new knowledge.他们正在扩展自己对周围世界的好奇心。还有他们获取新知识的热情。

Today, they begin the process of identifying flowers with the App and then making signs to label them outside. They continue this over the coming days with many others joining.

今天，他们开始用App识别鲜花，然后制作标志，在外面贴上标签。在接下来的几天里，他们继续这样做，还有许多人加入。

They are expanding their awareness of the possibilities of technology. They are seeing specifically how modern Apps can be used for identification of living things.孩子们正在扩大 对技术可能性的认识。他们正在具体地了解现代应用程序如何用于识别生物。

They are also realising how wide a variety of plants and flowers exist only in our school playground increasing their awareness of biodiversity.他们也意识到，只有在我们学校的操场上，植物和花卉的种类是多么广泛，这增强了他们对生物多样性的认识。

Finally, they are practicing our fine motor skills as we cut out the signs using scissors, use tape to connect it to the sticks, and then stick it in the ground.最后，他们正在练习我们的精细运动技能，我们用剪刀剪下标志，用胶带把它连接到棍子上，然后把它插在地上。

EXPANSION

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Teacher ponderings and wonderings.
老师沉思和好奇

?

Classification Again重新分类

Could we discuss in depth how the flowers are different and possible reasons? Or discuss further methods of identifying flowers and other living things?

我们可以深入讨论一下这些花是如何不同的以及可能的原因吗?或者讨论进一步鉴别花和其他生物的方法?

Could we continue to take further the idea of the flower signs. Put them all together in a PDF book and then share with our friends and family for example?

我们可以继续进一步研究花的符号吗?把它们都放在PDF书里，然后分享给我们的朋友和家人?

September 24th/25th (09/24 – 09/25)

Yoyo and Galen go home this weekend and continue our explorations. They come back and share with the class in the first of our weekly "Share Your Weekends."
Yoyo和 Galen 这周末回家继续我们的探索。他们回来和全班同学分享我们每周的第一期"分享你的周末"。

Galen continues with bug catching.
Galen继续捕虫。

EXPERIENCE

Yoyo and makes labels for flowers in her compound. Previously also, her and mum had been out for a walk.
Yoyo在她的院子里给花做标签。之前，她和妈妈还出去散步过。

Yoyo finds a flower and says "Mum, send to Teacher Rongrong. Her phone can help us find out what te flower is!
Yoyo找到一朵花，说："妈妈，把花送给容榕老师。她的手机可以帮我们找到这是什么花！"

We are seeing that "the classroom" - a place to investigate and explore - is everywhere!
我们看到"教室"——一个调查和探索的地方——无处不在！

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During our bug catching activities, many of us are developing a fascination in grasshoppers. This motivated a choice of book this week. We choose a wordless picture book. We need to tell the story from the pictures.

在捕虫活动中，我们中的许多人对蚂蚱产生了迷恋。这促使我本周选择了一本书。我们选了一本无字图画书。我们需要从图片中讲述故事。

Telling a story ourselves, our imagination is inspired and unrestrained, developing our creativity. In telling the story, we are developing our language expression. Finally, by the following the pictures, we are giving the story flow, logic and structure.

自己讲故事，会让孩子们的想象力被激发，无拘无束，发展创造力。在讲故事的过程中，孩子们也在发展语言表达能力。最后，通过图片，我们给出了故事的流程，逻辑和结构。

Eva: 跟我一样的名字的小女孩，也叫 Eva，她在晒太阳。

Eva: "*This little girl has the same name as me – Eva. She is basking in the sun.*"

Belada: 她发现了一大堆蚂蚁，她一直在看蚂蚁，就没发现旁边有一个蚂蚁窝。

Belada: "*She found a group of ants. She kept looking at the ants, but couldn't see the colony nearby.*"

Lisa: 毛毛虫它翻跟头了！
老师补充，小女孩一开始以为她拿的是毛毛虫吗？
Anna: "不是！是辣椒！毛毛虫是蚂蚁的女王！"

Lisa: "*The caterpillar is doing a flip.*"

Anna: "*It's not a caterpillar, it's a pepper. The caterpillar is the queen of the ants.*"
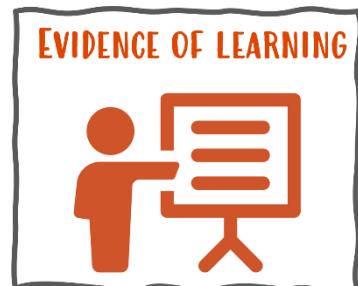

Galen: 掉下来了以后，那个毛毛虫突然看见了蚂蚁，那个蚂蚁吓死了，然后就爬到毛毛虫的身上了。

Galen: "*After it fell off, the caterpillar suddenly saw the ant
The ant was scared to death and crawled on top of the caterpillar.*"

Elina: 蚂蚁发现了小女孩，蚂蚁爬到了小女孩的头上。

Elina: "*The ant found the girl and climbed on her head.*"

EVIDENCE OF LEARNING

It is the final days before the vacation. While playing outside, we catch glimpse of tadpoles in a small drain next to the side gate from the kindergarten to the main school. We then move over to the large pool by the elementary school entrance. Here we spend more time searching for tadpoles.这是假期前的最后几天。在外面玩的时候，我们在从幼儿园到学校的侧门旁的一个小排水沟里瞥见了蝌蚪。然后我们走到小学门口的大游泳池。在这里，我们花更多的时间寻找蝌蚪。

We are using lots of different methods to try to catch tadpoles. Some of us use nets. Some use our hands. Others use cups. After some practice,

Belada says in Chinese, "*I think cups are the easiest method.*"

我们用了很多不同的方法来捕捉蝌蚪。我们中的一些人使用蚊帐。有些人用手。其他人使用杯子。经过一些练习，

*Belada*说："我觉得杯子是最简单的方法。"

We are beginning to critically compare different tools for catching.
我们开始批判性地比较不同的捕获工具。

EXPLORATION

Tune in here to see us exploring the pond.
扫码观看孩子们探索池塘

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Post Project Teacher Reflection 项目后教师反思

Following our search for tadpoles the life cycle of a frog was one thing that could have been taken further. Many of us show good awareness of this already however…在我们对蝌蚪的研究之后，青蛙的生命周期是一件可以进一步研究的事情。然而，我们中的许多人已经很好地意识到了这一点……
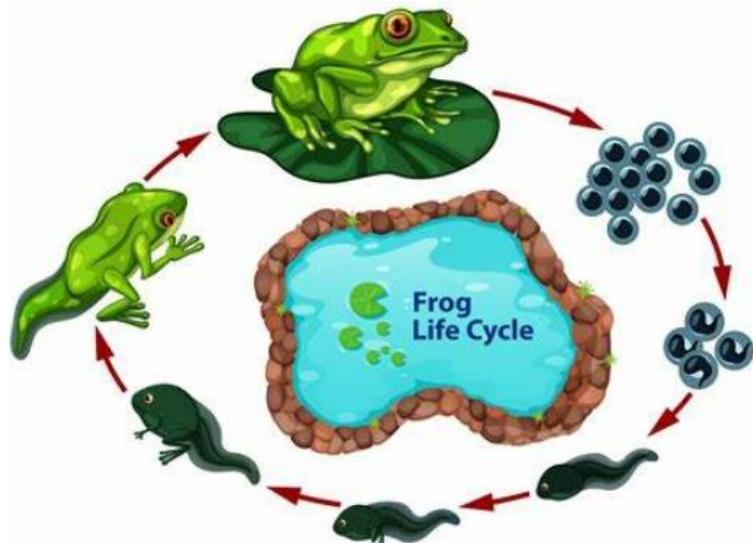
October 24th (10/24)

Holly and Lisa are role-playing with their frog and tadpole toys using the relation between the tadpole and frog.

Holly和Lisa正在用他们的青蛙和蝌蚪玩具进行角色扮演，利用蝌蚪和青蛙的关系。

Lisa introduces each of them to Teacher Joel in English, "*frog*", "*tadpole*", then indicates "*mum*" for the frog.
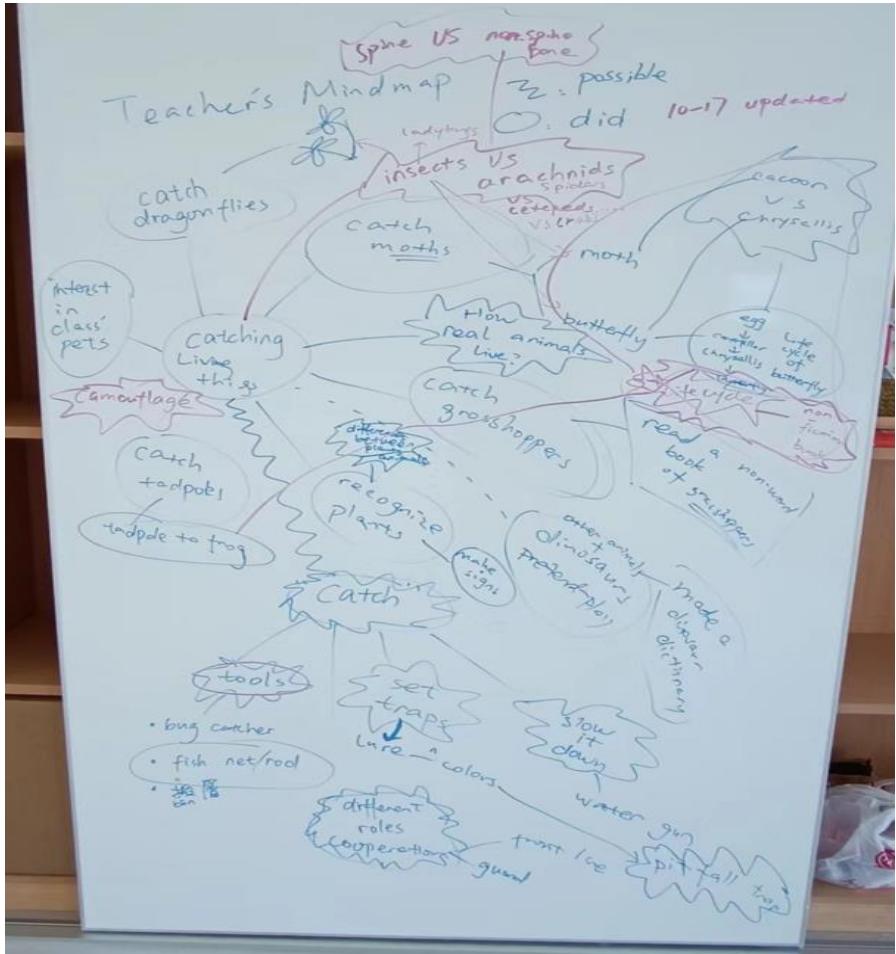
Lisa用英语向Joel老师介绍了每只青蛙，"青蛙"，"蝌蚪"，然后为青蛙表示"妈妈"。

Frog Life Cycle

EXPERTISE

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September 29th (09/29)

Today the teachers do a brainstorm discussing where we could go with the developing project on bugs and other living things.

今天老师们进行了一次头脑风暴，讨论关于虫子和其他生物的开发项目我们该往哪里走。

Everything in red added later in the updated brainstorm on 17th October.所有红色的字都是在10月17日更新的头脑风暴中添加的。

Teachers' collaborative thoughts…

"Some of us are interested in bug catching. Especially grasshoppers, butterflies, moths and dragonflies. There had initially been a little interest in making homes. We have tried to help students follow this interest, but it seems they are more interested in the process of catching.

Perhaps we could see where we could go discussing the process of catching? Students have already begun using different tools, and also giving each other roles when they hunt together. We could discuss this?"

教师的合作思维……
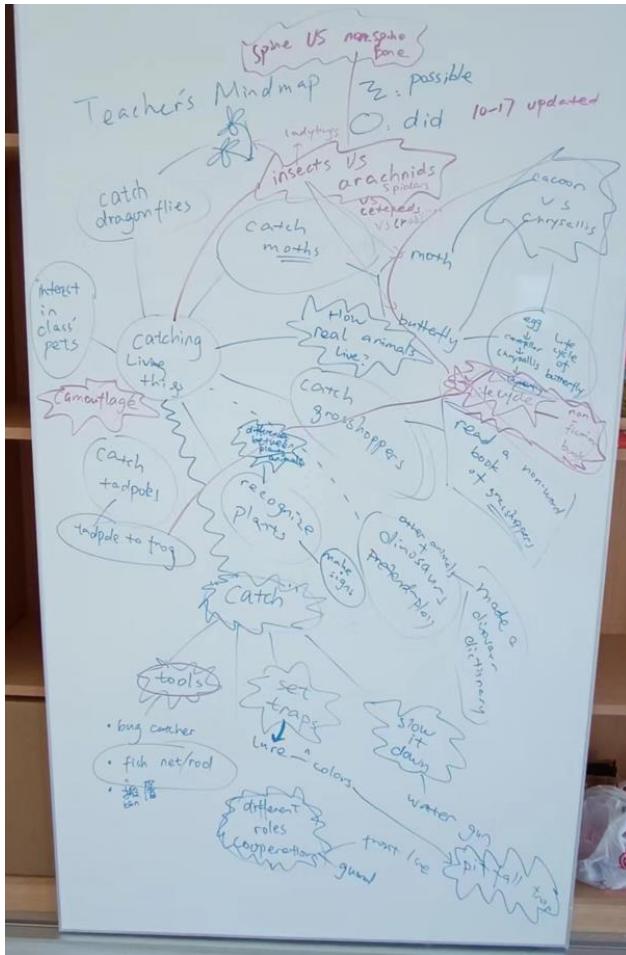
"我们中的一些人对捕捉虫子感兴趣。尤其是蚱蜢、蝴蝶、飞蛾和蜻蜓。起初，他们对建造房屋有一点兴趣。我们已经尝试过帮助学生遵循这种兴趣，但似乎他们更感兴趣的是捕捉的过程。

也许我们可以去讨论一下抓捕的过程?学生们已经开始使用不同的工具，并在一起打猎时给彼此分配角色。我们可以讨论一下吗?"

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Perhaps we could see where we could go discussing the process of catching? Students have already begun using different tools, and also giving each other roles when they hunt together. We could discuss this?

What else?
- Identifying flowers has sparked interest. How about identifying bugs? Butterflies against moths?
- Today, we enjoyed looking for tadpoles. What about tadpole to frog life cycle? Also, bug life cycles?
- Many of us love role-playing dinosaurs and other animals. Maybe we could investigate how real animals live?

还有什么?
- 辨认花朵引发了人们的兴趣。那么识别其他虫子呢?蝴蝶和飞蛾?
- 今天,我们很享受寻找蝌蚪的过程。蝌蚪到青蛙的生命周期呢?还有,虫子的生命周期?
- 我们很多人都喜欢角色扮演恐龙和其他动物。也许我们可以调查一下真正的动物是如何生活的?

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October 8th / 9th (10/08 – 10/09)

We return after the National Day vacation and the bug hunting is quick to resume.
国庆假期结束后，孩子们很快又开始了虫子的搜寻工作。
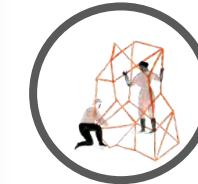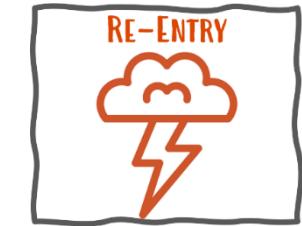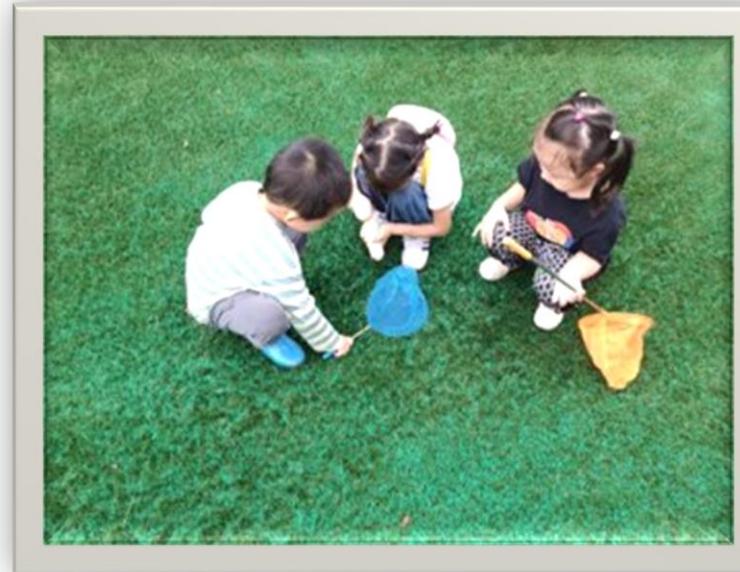
Galen, Anna and Belada are particularly dedicated over these two days. Working together, they are keen to try new approaches to finding and catching bugs in efficient ways.
Galen, Anna和Belada在这两天特别专注。他们一起合作，热衷于尝试新的方法，以有效的方式发现和捕获虫子。

Galen and Anna will search carefully together in the long grass areas close to the running track. We previously found many bugs here. Meanwhile, Belada will scout around to other areas, in case anything can be found there. If a bug is found the person who finds it will call out to the rest. Once everyone is together, one person will use the net, while others give directions.
Galen, Anna在跑道附近的长草地上仔细搜索。我们之前在这里发现了许多虫子。与此同时， Belada侦察其他地区，看看在那里能找到什么。如果一个虫子被发现了，发现它的人就会喊其他的人。一旦所有人都在一起，一个人使用网捉虫，而其他人则喊着告诉捉虫的人虫子跑到哪个方向了。

RE-ENTRY

They are further developing their ability to cooperate. Also strategizing on how they can work together most efficiently.
他们正在进一步发展合作能力。还要制定策略，让他们如何最有效地合作。

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As we have caught bugs, the question of where to keep them has always developed. Galen has occasionally brought cages in to school. However using the resources in school, many of us have found bottles, which are readily available, as being a good size, and easy to transport.

当我们捕捉到虫子时，在哪里饲养它们的问题就一直存在。Galen偶尔会把他的昆虫盒子带进学校。然而，很多小朋友也发现要利用学校的资源，回收区的瓶子很容易拿到，因为瓶子的尺寸很好，而且便于运输。

As we are setting up our first ever bottle home,
Galen: (In English) "*Joel, can you help me put him in?*"
After we do:
Galen: "*But maybe he can't _____.*" (He acts out breathing).
We use pins to make breathing holes.

当我们准备好第一个瓶子的时候，
Galen:（用英语）"Joel，你能帮我把它放进去吗?"
（在我们做完之后。）
Galen:"但也许他不能_____。（他假装呼吸的动作）。
我们用大头针做呼吸孔。

Here, Galen is reflecting on his knowledge of the bugs necessary life processes. He is relating this to the small home we are making. He is considering the vital details in building the home.

在这里，Galen正在反思他对虫子必要的生命过程的认识。他把这和我们正在建造的小家联系起来。他正在考虑建造房屋的重要细节。

Anna looks at the moth she has found, in her bottle.
Anna看着她在瓶子里发现的蛾子。

Galen's bug cage, which he has brought from home.
Galen从家里带来的昆虫盒子。

Teacher ponderings and wonderings.老师沉思和好奇

?

Could we go further with "taking care of the bugs we catch"?

我们能不能更进一步 "照顾我们抓到的虫子"？

Throughout this week and continuing into coming weeks, as a provocation to explore the features of bugs through art work, a bug drawing area is set up on a large length of paper from a scroll. We can use the bug models we have in the classroom, photos and pictures as the basis for still life drawings.

在这一周和接下来的几周，我们为孩子们准备了一些和虫子相关的邀请式活动。通过艺术作品探索虫子的特征，一个虫子绘图区被设置在一个卷轴上的长纸上。我们可以用教室里的虫子模型，照片和图片作为静物画的基础。

Butterflies, ladybugs and caterpillars are amongst the main bugs that we choose to draw.
蝴蝶、瓢虫和毛毛虫是我们选择画的主要昆虫。

EXPLORATION

Holly (left) and Elina (right) hard at work.
Holly（左）和Elina（右）在努力工作。

22
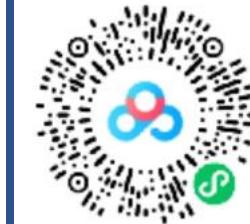
The long scroll allows many of us to work at the same time – Ziyu, Elina, Yoyo and Anna.
长卷让我们许多人同时工作——Ziyu, Elina, Yoyo, Anna。

Yoyo and Anna discuss their work.
Yoyo和Anna讨论他们的工作。

EVIDENCE OF LEARNING

Still life drawing helps develop careful observation and attention to detail. These are vital skills in our work, study and life.
静物画有助于培养细心的观察力和对细节的注意。这些都是我们工作、学习和生活中至关重要的技能。

…so the bug catching interest for many of us continues to expand. We have already been trying out different techniques and approaches. Hence, we decide to have a full group conversation on catching bugs, to see what new ideas will be offered. We continue the discussion over three days in our Morning Meetings. Thinking about the ideas, more and more of us join the bug catching activities each day. This allows further thoughts and reflections to be added in the later discussions.

许多孩子对虫子捕捉的兴趣仍在继续。我们已经在尝试不同的技术和方法去捉虫子。因此，我们决定进行一个关于捕捉虫子的完整大组讨论，看看会有什么新的想法。我们在晨会中，连续讨论了三天。我们中越来越多的人会想要实践这些想法，开始每天都参加捕捉虫子的活动。这样就可以在以后的讨论中加入进一步的想法和思考。

Day 1, October 10th
We have a big focus on ways for catching different types of bugs. The conversation happens in Chinese, but we are shown English words as we go – "creepy crawlies", "net", "cans", "bottles", "poisonous", "lure".

Elina: "*For flying or hopping bugs, we can use a net.*"
Belada: "*We could use food to lure the bug?*"
Eva and Ziyu both note how creepy crawlies can be caught with hand, gloves, or specialised bug catching tools.
Elsa: "*Some bugs are poisonous. It is better to leave them alone and just look at them.*"
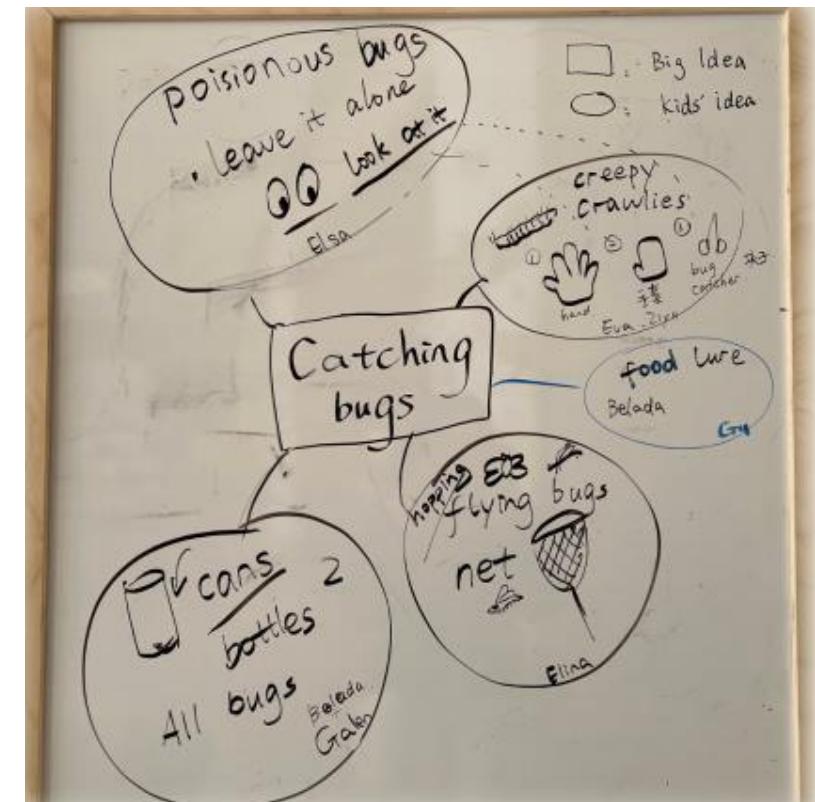
我们非常关注捕捉不同类型虫子的方法。对话是用中文进行的，但我们边说边看到英语单词——"creepy crawlies", "net", "cans", "bottles", "poisonous", "lure".

Elina: "对于会飞或会跳的虫子，我们可以用网。"
Belada: "我们可以用食物来引诱虫子?"
Eva和Ziyu都提到了如何用手、手套或专门的捕虫工具捕捉毛毛虫。
Elsa:"有些虫子是有毒的。最好不要去管它们，只能看着它们。"
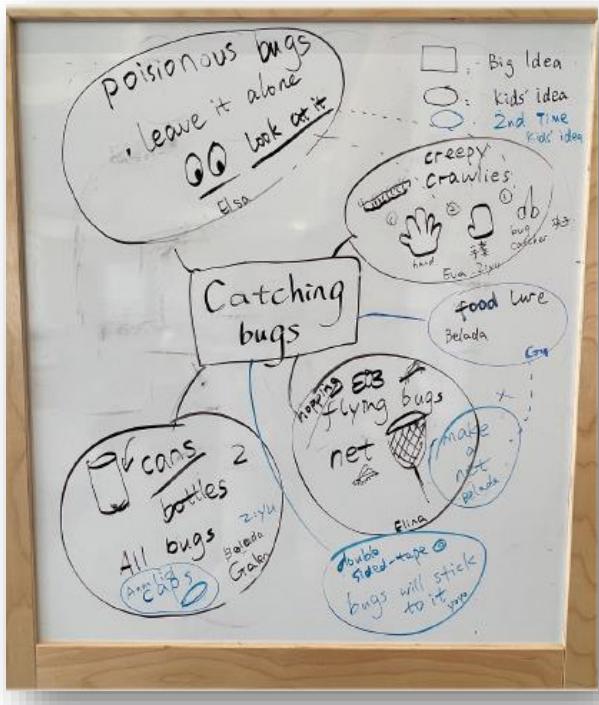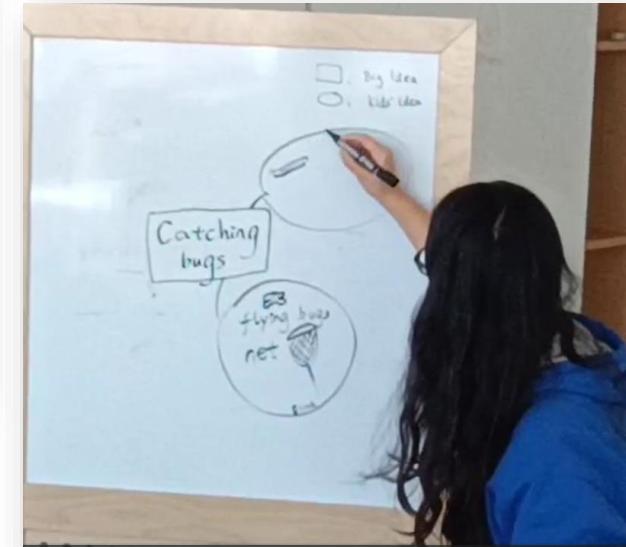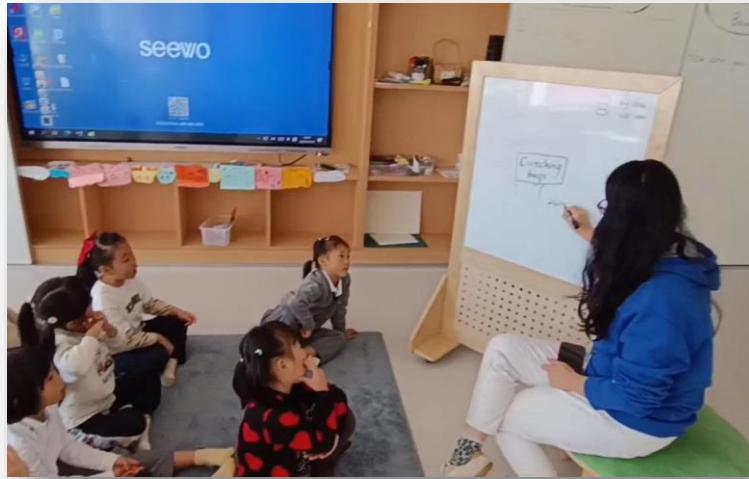
Day 2, October 11ᵗʰ
We expand our ideas today.
(Again, we are talking Chinese here.)

Yoyo: "*You can use double-sided sticky tape. Bugs will stick to this.*"
Anna: (For storing the bug in a bottle.) "*We need a secure cap, or else the bug can escape.*"
Belada also suggests today that we could make a net.

今天我们拓展了我们的想法。
（同样，我们在这里是用中文讨论的。）

Yoyo：你可以用双面胶带。虫子会粘在上面的。"
Anna：（把虫子放进瓶子里）"我们需要一个瓶盖，否则虫子就会跑掉。"
Belada 今天还建议我们可以做一个网。

EXPANSION

Day 3, October 12th

Today we add some final ideas.

We note that gloves we wear for bug catching may need to be thick to protect us from some bugs and plants.

Also, some of us have seen a centipede outside, so we learn the English name for this.

今天我们补充了一些新的想法。

我们注意到，为了保护我们免受一些虫子和植物的伤害，我们戴的捕虫手套可能需要很厚。

还有，我们有些人在外面见过蜈蚣，所以我们学习了它的英文名字。

EXPANSION

Through these discussions, we are building up our reflection skills as we reflect on our real-life knowledge of types of bugs and our past experiences bug catching. Also our critical thinking and problem solving, as we consider the ways of catching different types of bugs. Finally, our collaborative discussion and ability to listen to each other.

通过这些讨论，我们在反思我们在现实生活中对昆虫种类的了解和过去捕捉昆虫的经验时，其实也正在培养我们的反思技能。当我们考虑如何捕捉不同类型的虫子时，我们还锻炼了批判性思维和解决问题的能力。除此之外，我们还锻炼了协作讨论和相互倾听的能力。

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Using gloves for protection as we hunt.
戴上手套来避免孩子们捉虫时受到伤害。

October 12th – 14th (10/12 – 10/14)

SMALL GROUP MINI PROJECT – MAKING A NET!
小组迷你项目–做一个网

Following our bug catching discussions, many of us have expressed interest in making our own bug catching net.
Elsa, Anna, Yoyo, Elina and Ziyu are all keen to participate.
在我们的虫子捕获讨论之后，我们中的许多人都表示有兴趣制作我们自己的虫子捕获网。
Elsa, Anna, Yoyo, Elina和Ziyu都热衷于参与。

EXPLORATION

Popsicle sticks are used as the handle. We also use pipe cleaners and cloth. We make a circle from the popsicle sticks for the head. The cloth was for the net. Initially we tried to glue this to the pipe cleaner, but we found no glue was able to hold it. Several of us hence suggested using a stapler. This worked a lot better. We had tried to make the cloth flat and then stretch it, but we found that this structure kept breaking. The next day we brainstormed again. Elina took inspiration from her roller blading bag. We used much more cloth so that it formed a cup shape under the popsicle sticks. This solved the problem.

一些小朋友对制作捕捉网弄个浓厚兴趣，经过讨论，我们选用了以下材料来制作网子：纱网、毛根、订书针、雪糕棍、订书机、双面胶等。一开始，孩子们用毛根弯曲成一定形状，再利用纱网将毛根覆盖住，可是在覆盖时发现没有足够有粘性的胶可以粘住纱网。于是，有人提出用订书机，我们试用了订书机，成功将网订在了一起。但是这样的网太容易破了。第二天，我们再次头脑风暴，在Elina带来的轮滑鞋袋子中找到了灵感（见右图👉），于是我们调整了一下怎么覆盖纱网：从原来的一个网面变成形成一个网兜。调整之后，小网子终于能够投入使用了！

Making a net
制作网子

See us in action here:
扫码看我们怎么制作：

EVIDENCE OF LEARNING

Here we are developing our commitment to a project over multiple days. Secondly our problem solving as we improved on the design. Working with the popsicle sticks and stapler all build our fine motor skills with our hands.

这个项目讨论跨度长达三天及以上，孩子们因此也领略到了一个项目的持久性。其次，我们在改进设计时，也在尝试解决实际生活中的问题。另外使用雪糕棍和订书机，也培养我们的精细运动技能。

Taking the Project Home 2
项目的家庭延伸 2

This weekend, Elina goes bug catching in her compound.
这个周末，Elina要去她的院子里抓虫子。

She then shares with us.
她在和大家分享她抓虫子。

Each week, we do our "Share Your Weekend" presentations. We practice presentation skills in front of the class as well as our storytelling communication and language expression. We also learn from each others experiences. Finally, we practice active listening as we follow each others presentations and ask questions.

每周，我们都会做"周末分享"演讲。我们在课堂上练习演讲技巧、讲故事的沟通和语言表达。我们也从彼此的经验中学习。最后，我们练习积极倾听，我们针对对方的演讲进行提问。

Excited after last week's endeavours, Eva brings bug catching gloves and many of us bring nets from home. We use these in our bug catching endeavours, which continue this week.

经过上周的努力，Eva兴奋不已，她带来了捕虫手套，我们很多人也从家里带来了捕虫网。我们将在本周继续进行的捕虫工作中使用这些方法。

Thank you so much family for the continual support.
感谢大家一直以来的支持

2022年12月6日 7:46

🔴 薄荷 苏一妈妈 @微信

另外 ason 今天也从家里带了一些绘本，和小伙伴们一起分享，有科普类的也有关于恐龙的。

10/17/22 10:15 AM

一颗快乐的柠檬 🎀🍋

宝宝书包里带了一些儿童一次性手套，给孩子们玩抓虫子😁

Baby bag with some children disposable gloves, for the children to play catch insects 😁

Translated by Weixin

一颗快乐的柠檬 🎀🍋
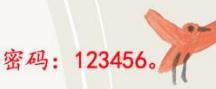
From our weekly newsletters.
我们在每周简报中也会加强家校合作，邀请家长一起为我们的项目添砖加瓦。

温馨提示：

1. 天气转凉，请家长把冬被带到学校哦！
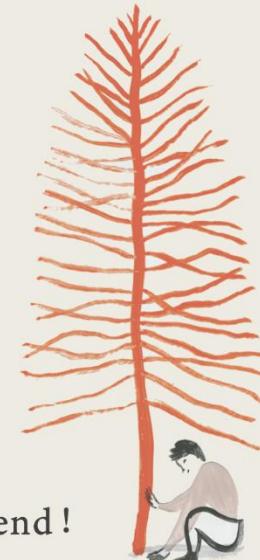
2. 请务必**完成安全教育平台里的网络课程，完成安全教育平台里的网络课程，完成安全教育平台里的网络课程**！（重要的事情说三遍！！！！！）密码如果登录不上，请再试一下初始密码：123456。

范宜攸	幼儿园大班	大一班	fanyiyou135
王明果	幼儿园大班	大一班	wangmingguo935
李籽诺	幼儿园大班	大一班	lizinuo510
薛子钰	幼儿园大班	大一班	xueziyu189
陈子欣	幼儿园大班	大一班	chenzixin3121502
张仲	幼儿园大班	大一班	zhangzhong473
余子宜	幼儿园大班	大一班	yuziyi6252026
程嘉怡	幼儿园大班	大一班	chengjiayi268
马裕洁	幼儿园大班	大一班	mayujie243
苏一	幼儿园大班	大一班	suyi164
龚艺依	幼儿园大班	大一班	gongyiyi574
吴雨桐	幼儿园大班	大一班	wuyutong8602417

3. 我们最近在做和虫子、交通工具（火车、校车、船）等有关的项目探索，欢迎各位家长分享家里相关的图书、工具等～

4. 根据当前疫情防控形势需要，积极倡导全区教育系统师生员工减少外出，两点一线，闭环管理，主动落实个人防护措施，规范佩戴口罩。

周末愉快！
Happy Weekend！

温馨提示：

1. 特别感谢Yoyo妈妈、Eason家长和Belada妈妈为班级无偿贡献的蝴蝶蛹、松果和寄居蟹！

2. 少儿医保的文件已放在小朋友书包带回，请您查阅学校邮件详情，根据个人情况填写 参保回执，周一带回！

3. 请务必**完成安全教育平台里的网络课程，完成安全教育平台里的网络课程，完成安全教育平台里的网络课程**！（重要的事情说三遍！！！！！）

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程嘉怡	幼儿园大班	大一班	chengjiayi268
马裕洁	幼儿园大班	大一班	mayujie243
苏一	幼儿园大班	大一班	suyi164
龚艺依	幼儿园大班	大一班	gongyiyi574
吴雨桐	幼儿园大班	大一班	wuyutong8602417

密码如果登录不上，请再试一下初始密码：123456。

周末愉快！
Happy Weekend！

October 17th – 22nd (10/17 – 10/22)
Throughout this week, bug catching continues to be the cause of much teamwork, excitement and success.
在这一周中，昆虫捕捉仍然为孩子们带来团队合作、兴奋和成功。

Holly, Lisa, Galen, Yoyo, Anna, Belada and Elina all work together to catch a bug in an epic showdown.

Holly, Lisa, Galen, Yoyo, Anna, Belada 和 Elina在一场史诗般的对决中，所有人一起努力抓住一个虫子。

Friendships, compassion and caring are developed through our bug catching activities. Where some of us are struggling to find bugs, others will help. Where some of us caught and, we will allow our friend to take the one we have found together.

我们的友谊、同情心和关怀，通过抓虫活动逐步发展起来。当我们中的一些人在努力寻找虫子时，其他人会提供帮助。一些小朋友在抓住虫子之后，还会让朋友带走刚找到的虫子。

EXPLORATION

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Galen finds a bug in the hallway, which he puts in his bottle.

He notes that it looks a little like a grasshopper, which we often catch, but he is not not completely sure what it is. Belada has an idea. She runs inside to ask Teacher Gu to borrow her phone. Belada uses the APP to look it up.

Eventually, we identifying the bug as a cricket.

Galen在走廊里发现了一只虫子，他把虫子放进了瓶子里。
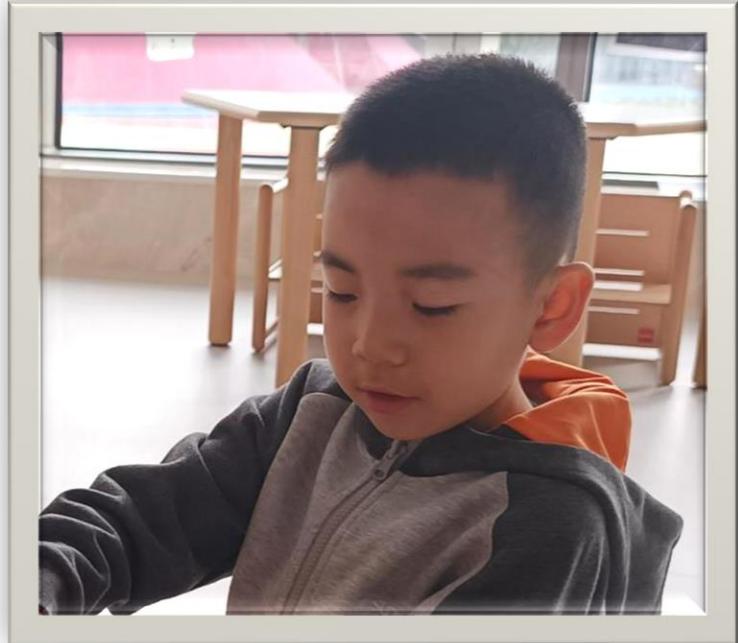
他指出，它看起来有点像我们经常捕捉的蚂蚱，但他不完全确定它是什么。Belada有个主意。她跑进屋向顾老师借手机。Belada用这个APP来查找。

最终，我们确定这只虫子是蟋蟀。

We have previously practiced using the App outside, and are now becoming self-sufficient in our research ability. They are also practicing their use of technology for identification.我们之前在户外练习使用App，现在我们的研究能力已经可以自给自足了。他们还在练习使用技术对昆虫进行身份识别。

He also shows Belada the grasshoppers in his cage.
他还向Belada展示了笼子里的蚱蜢。

Cricket
蟋蟀

Grasshopper
蚂蚱

November 2nd (11/02)
On this note of grasshoppers and crickets, which are very similar, on a later day, several of us are eating lunch together and Carey poses the question in English, "What is bigger, a grasshopper, or a cricket?"
Galen: *A grasshopper is bigger.*
Carey: *Yes, I think a grasshopper too.*

We look this up and confirm that a grasshopper is indeed bigger.
谈到蚂蚱和蟋蟀，它们非常相似。在后来的一天，我们几个人在一起吃午饭，Carey用英语提出了一个问题:"蚂蚱和蟋蟀，哪个更大?"
Galen:蚂蚱更大。
Carey:我也觉得是蚂蚱更大。
我们查了一下，确认蚂蚱确实更大。

EXPANSION
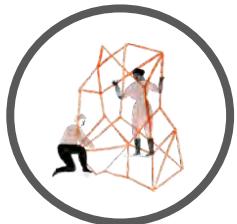
Carey is nurturing his curiosity by asking questions. Together, he and Galen are reflecting on their knowledge of both these bugs.
Carey通过提问来培养他的好奇心。他和Galen正在一起反思他们对这两种虫子的了解。

During our bug catching endeavours, we have caught moths, grasshoppers, crickets, ladybugs and spiders. We have also seen butterflies and dragonflies. Many of us have been keen to ask for the name of the bug we find. We have previously used the App to identify the bugs, but now we also begin studying different types of bug too.

在捕虫过程中，我们捕捉过飞蛾、蚂蚱、蟋蟀、瓢虫和蜘蛛。我们还看到了蝴蝶和蜻蜓。我们中的许多人都热衷于询问我们发现的虫子的名称。我们以前使用该应用程序来识别虫子，但现在我们也开始研究不同类型的虫子。
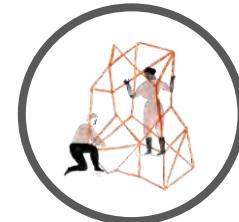
As a start, we put up keys of different types of bugs at the front of the class, and also on the window outside, which we can then go to identify a bug we find.

开始的时候，老师把不同类型的的虫子示意图放在教室前面，同时也放在户外的窗口上，然后孩子们可以去那里识别发现的虫子。

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With so many grasshoppers having been caught, we also have a chart for the many different types of grasshopper.
由于有很多蚂蚱被捕获，我们还准备了不同类型的蚂蚱示意图。

Types of Grasshoppers

Lompoc Grasshopper	Valley Grasshopper	Common Green Grasshopper	Eastern Lubber Grasshopper	Desert Locust	Tobacco Grasshopper
Migratory Locust	Red-legged Grasshopper	Chinese Grasshopper	Gray Bird Grasshopper	Meadow Grasshopper	Australian Plague Locust
Red Locust	Italian Locust	Differential Grasshopper	Common Field Grasshopper	Blue-winged Grasshopper	Two-striped Grasshopper
Brown Locust	Bow-winged Grasshopper	Pallid-winged Grasshopper	New Zealand Grasshopper	Violet-winged Grasshopper	Large Marsh Grasshopper

EXPLORATION

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Many of us had previously noted that some of the grasshoppers we caught were a green colour, and some yellow. We had hypothesized that the green ones were young and the yellow ones old. Now we are learning that they are different species of grasshopper. The most common types of grasshopper we found were the "Chinese grasshopper" and the "tobacco grasshopper".

我们中的许多人之前注意到，我们捕捉到的蚂蚱有些是绿色的，有些是黄色的。孩子们提出假设，觉得绿色的是年轻的，黄色的是年老的。现在我们了解到它们是不同种类的蚂蚱。我们发现最常见的蚂蚱类型是"中国蚂蚱"和"烟草蚂蚱"。

In hypothesising about the reason behind the different colours of the grasshoppers, we are practicing our scientific thinking skills. Seeing that there are different types of grasshopper, we are learning more about the diversification of living things. Using the charts to identify the bugs, we are practicing our careful observation and comparison skills.

在假设蚂蚱不同颜色背后的原因时，孩子们正在练习科学思维技能。看到蚂蚱有不同的种类，我们对生物的多样性有了更多的了解。通过图表来识别虫子，我们正在练习仔细观察和比较的技能。
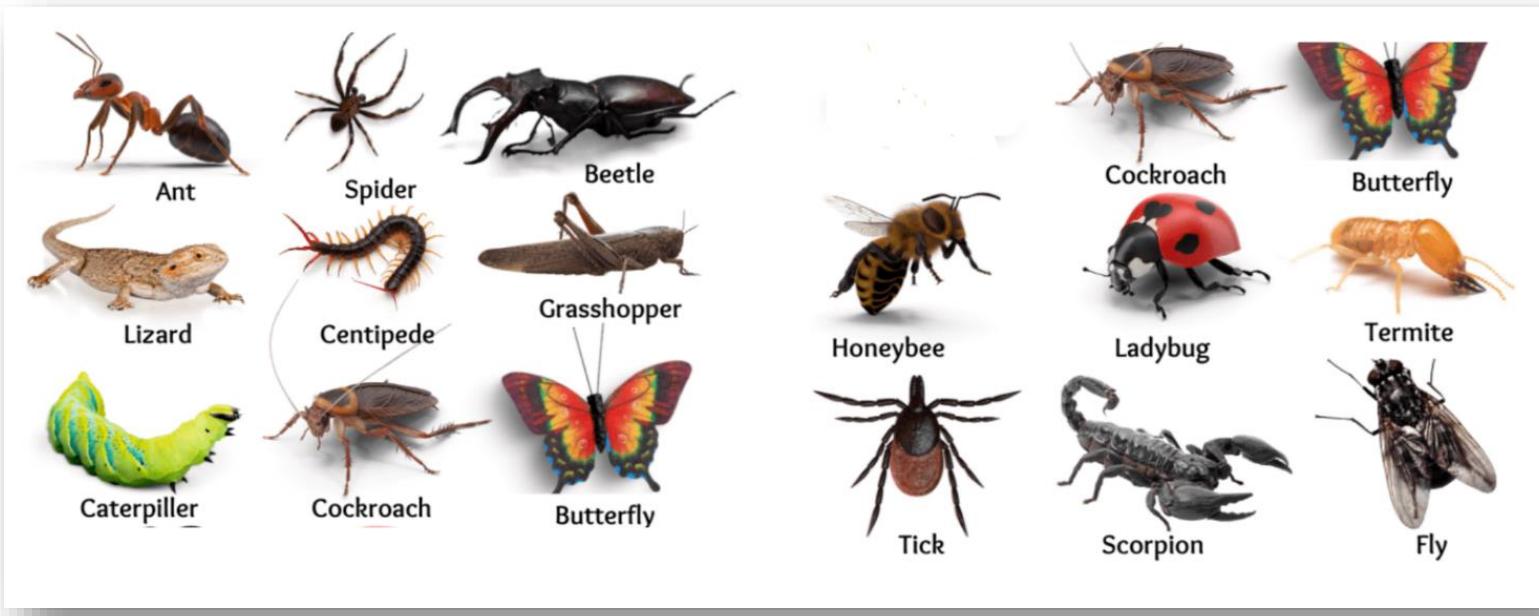
We have now got used to using a phone to identify a bug, and also to checking the bugs against the bug charts.

To guide us further in our using the pictures to identify the bugs ourselves, while practicing our English listening, we have a short meeting with Teacher Joel. This is to practice how we could identify a bug we have found.

我们现在已经习惯了用手机来识别虫子，也习惯了根据虫子图表来检查虫子。

在练习英语听力的同时，为了进一步指导我们使用图片来自己识别虫子，我们和Joel老师开了一个简短的会议。这是为了练习我们如何识别已经发现的虫子。

Belada: A lizard is not a bug! Why is it there????
Belada: 蜥蜴不是虫子！为什么会有????

She is correct – a mistake! Here, Belada is showing great awareness of what can be classified as a bug. Also her ability to question the world around her.

她说得对——有个错误！ Belada对什么可以被归类为虫子表现出了很强的意识。还有她质疑周围世界的能力。

41

Joel: "*If it has wings and white and yellow stripes*" (he indicates the meaning by drawing stripes on the board).

Lisa comes up to identify the honeybee on the board.

Joel: "*If the bug you have found has 8 legs, what could it be?*"

Galen: (Immediately) "*A tick*"

Yoyo: "*A tick or a spider.*"

Joel:"如果它有翅膀和白色和黄色的条纹"（他通过在黑板上画条纹来表示这个意思）。

Lisa上来辨认黑板上的蜜蜂。

Joel:"如果你发现的虫子有8条腿，那它会是什么?"

Galen:(马上) "蜱虫"

Yoyo:"一只蜱虫或者一只蜘蛛。"

We are at different levels of our English learning journey. Some of us may need visual support to understand the descriptions during the activity here, which is fine. We are all however practicing our English comprehension, while also our ability to look carefully to identify the features we here in the pictures.

我们处在英语学习旅程的不同阶段。我们中的一些人可能需要视觉支持来理解活动中的描述。然而，我们都在练习我们的英语理解，同时也在练习我们仔细观察图片中我们所看到的特征的能力。

BIG TEACHER BRAINSTORM – Follow Up 老师的头脑风暴 —跟进

REFLECTION

October 17th (17/10)
Today, the teachers update their original mind map from September.
今天，老师们更新了九月份的思维导图。

Students have been fascinated in a range of different bugs outside. Then plants and flowers. Then dinosaurs and other bigger animals.
学生们对外面各种各样的虫子都很着迷。然后是植物和花卉。然后是恐龙和其他较大的动物。

Teachers considered where we could go with classification.
- Insects (6 legs) against arachnids, such as spiders (8 legs), against centipedes and millipedes, with many legs.
老师们考虑我们的分类可以达到什么程度。
–针对蛛形纲的昆虫(6条腿)，如蜘蛛(8条腿)，针对蜈蚣和千足虫(多腿)。

During our discussion, us teachers knew very little about the difference between a centipede and a millipede, so researched this ourselves!
在讨论过程中，我们老师对蜈蚣和千足虫的区别所知甚少，所以我们自己研究了一下!
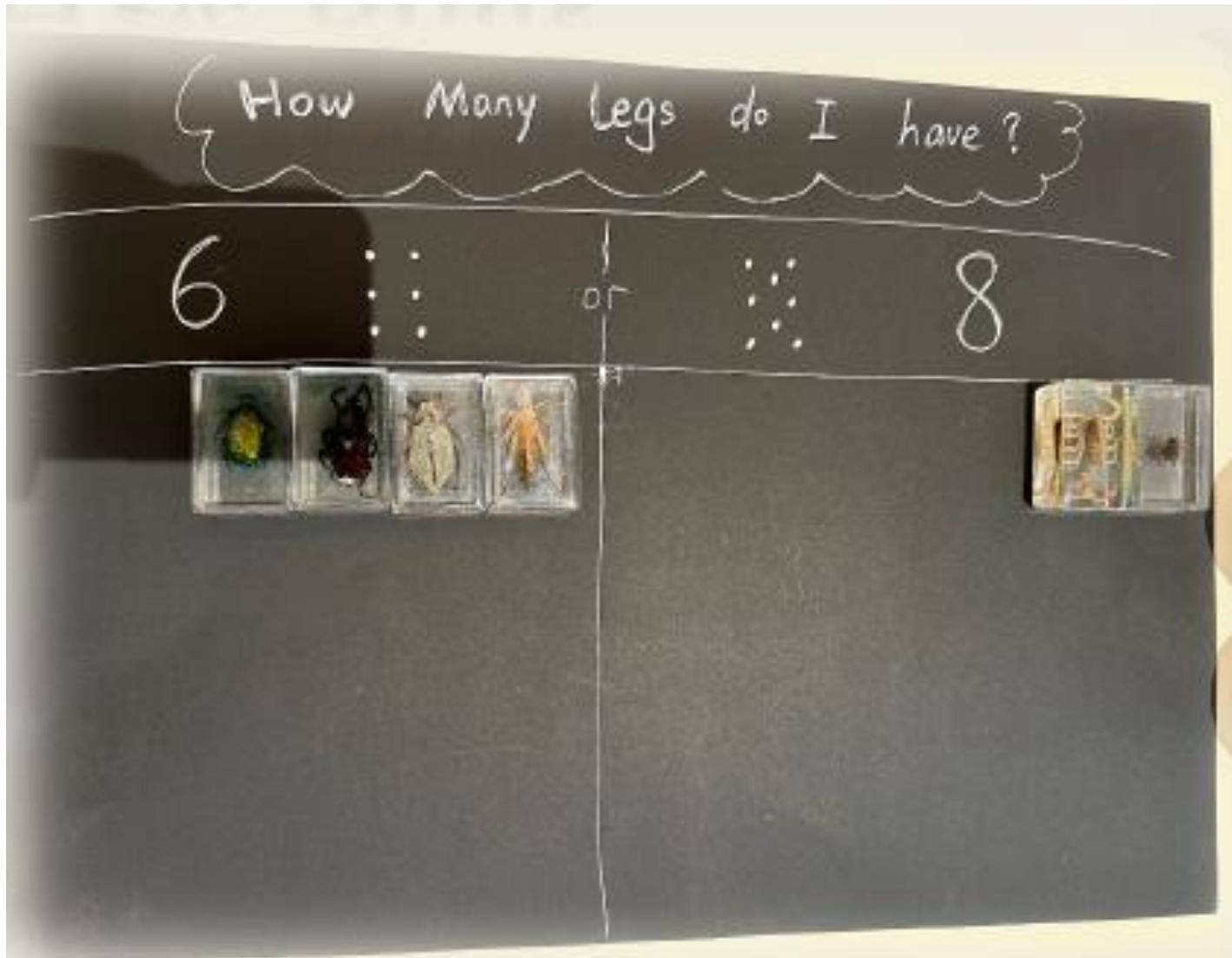
We noted that the above are all without a spine, so then also considered a spine (vertebrates) vs. no spine (invertebrate). Considering our class pets, we then note that that a crab is in another group of invertebrates.我们注意到以上都是没有脊椎的，所以也考虑有脊椎(脊椎动物)和没有脊椎(无脊椎动物)。考虑到我们的宠物类，我们注意到螃蟹属于另一组无脊椎动物。

Later, once we get further into our exploration of dinosaurs, we also decide to introduce classification by carnivore or herbivore.
后来，当我们进一步探索恐龙时，我们还决定按食肉动物或食草动物进行分类。

43

December 5th – 9th (12/05 – 12/09)

Outside there had been further discussions on the number of legs bugs have. As a provocation to take this further, Teacher Gu provides an assortment of different specimens each day. They can be sorted as to whether they have six legs or eight legs.

Lisa, Holly, Anna, Elsa, Elina, Ziyu, Galen and Yoyo all visit at different points throughout the week.

We are practicing our math skill of counting. Also, the mathematical skill of sorting by number. Finally, our skill of careful scientific observation. We practiced using the kaleidoscopes to make the specimen more fun to watch.

我们在练习数数的数学技能。还有，按数字排序的数学技巧。最后，我们还培养饿了科学观察技巧。我们还使用了万花镜使标本显得更有趣。

在户外，孩子们进一步讨论了虫子有多少条腿。为了激励大家更进一步，顾老师每天都提供不同种类昆虫的标本。它们可以根据是六条腿还是八条腿来分类。

Lisa, Holly, Anna, Elsa, Elina, Ziyu, Galen和Yoyo都在这一周到这个小组来数了数这些虫子都有几条腿。

EXPLORATION

EVIDENCE OF LEARNING

*Post Project Teacher Reflection*项目后教师反思

Over the weeks, we had continually pondered on how to go further with classification of living things.
几个星期以来，我们一直在思考如何进一步对生物进行分类。

We used pictures of any different types of bug to be used for identification. Then we did much work comparing two groups, for example carnivores vs. herbivores and chrysalis vs. cocoon.
我们使用了任何不同类型的昆虫的图片来进行识别。然后我们做了很多工作来比较两组，比如食肉动物和食草动物，蛹和茧。

To take things further, we could have introduced classification webs and charts to help students see how different animals are similar and different and note the exact features of animals in each group.
为了更进一步，我们可以引入分类网站和图表来帮助学生了解不同动物的相似和不同之处，并注意到每一组动物的确切特征。

We could also have spent even more time encouraging student thinking as to why animals were in particular groups. We did do some of this. For example, below is a discussion between Teacher Joel and Galen.
我们还可以花更多的时间鼓励学生思考为什么动物是特定的群体。（我们确实做了一些。）例如，下面是Joel老师和Galen之间的讨论。

Returning to Belada's comment on the fact that a lizard wasn't a bug, we could have asked "How do you know it isn't a bug?". Deeper questions like this would help stretch thinking and reflection on knowledge.
回到Belada关于蜥蜴不是虫子这一事实的评论，我们本可以问"你怎么知道它不是虫子？"像这样更深层次的问题将有助于扩展对知识的思考和反思。

Me: *How do you know it's a grasshopper?*
Galen: *It's green.*
Me: *But are all grasshoppers green?*
Galen: *Hmmm, no, brown.*
Me: *So how do we know it's a grasshopper. What does it do maybe?*
Galen: *It hops.*
Me: *Do all bugs hop?*
Galen: *No. Maybe walk and run and fly.*

46

Today, we learn more about some bugs in English as we read the book "All About Bugs." by Eric Michaels. These are beetles, ants, bees, Zhong's favourite bug, the firefly, grasshoppers, which many of us like, bees, ladybugs and the walking stick. We learn about their characteristics and behaviours. We follow along with Teacher Joel and answer comprehension questions as we go. We are told the function of the antenna. We learn that fireflies glow in the dark. Through the walking stick, we are introduced to the concept of camouflage.

今天，我们通过阅读《All about bugs》这本书来了解更多关于虫子的英语知识。埃里克•迈克尔斯(Eric Michaels)。这些是甲虫，蚂蚁，蜜蜂，钟最喜欢的昆虫，萤火虫，蚂蚱，我们很多人都喜欢，蜜蜂，瓢虫和竹节虫。我们了解他们的特点和行为。我们跟着Joel老师，边走边回答理解问题。我们知道了天线的功能。我们知道萤火虫在黑暗中发光。通过竹节虫，我们了解了伪装的概念。

47

This is a beetle.
A beetle is a bug.
Bugs have six legs.

2

3

This is an ant.
Ants crawl on the ground.
A little ant can carry
a very big load.

4

5

This is a bee.
It has six legs,
and it has wings.
Bees fly from
flower to flower.

6

7

This is a firefly.
It has wings.
Fireflies glow in the dark.
They blink on and off
as they fly.

12

13

This is a grasshopper.
A grasshopper has
very strong legs.
It can walk and hop.

8

9

This is a ladybug.
It has red wings
with black spots.
It can crawl
on a flower.
Then it can fly away!

10

11

This is a walking stick.
This bug is hard to see.
It looks like a stick
that can walk.
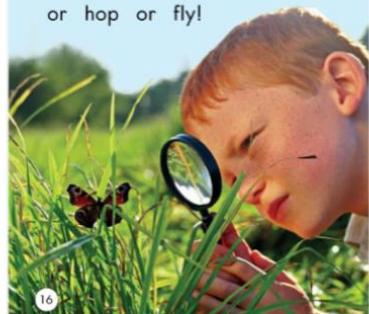
14

15

Where can you see bugs?
Look up and down.
Look for bugs that crawl
or hop or fly!

16

See the section on the 'bee' here.
扫码观看"蜜蜂"片段

Reading the book, we get to the page on the ladybug. As we get to the line "It has red wings", <u>Belada</u> speaks up and says in English
"*No, these are not his wings, his wings are in here!*" as she indicates the real wings are underneath the red part with black spots. Elsa and others agree.

我们读到了瓢虫的那一页。当我们说到"它有红翅膀"这句台词时，Belada大声用英语说
"不，这不是他的翅膀，他的翅膀在这里！"她指出真正的翅膀在带黑点的红色部分下面。Elsa和其他人都同意。

This is a ladybug.
It has red wings
with black spots.
It can crawl
on a flower.
Then it can fly away!

10

We turn to the next page with the red body part with the black spots, but also thin black wings outspread.
"*Look!*" Belada exclaims.

我们翻到下一页，红色的身体部分带着黑色的斑点，还有薄薄的黑色翅膀展开。
"看！"Belada说。
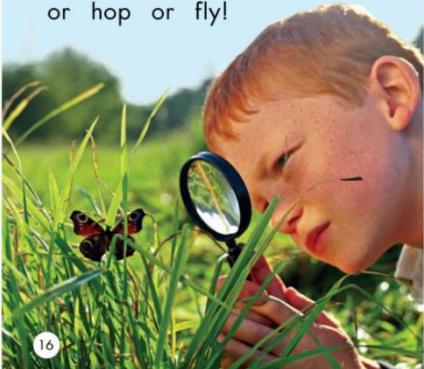
By questioning the function of the different body parts, we are reflecting on our scientific knowledge of ladybugs and all critically considering what we are reading. Ladybug wings was now the motivation behind the next book we read.
通过质疑不同身体部位的功能，我们正在反思我们对瓢虫的科学知识，并批判性地考虑我们正在阅读的内容。瓢虫翅膀成了我们下一本书的灵感来源。

49

Where can you see bugs?
Look up and down.
Look for bugs that crawl
or hop or fly!

16

Then as we get to the last page of our book, Teacher Joel asks "*What happens if you look at the butterfly through the magnifine glass?*

"*Butterfly is bigger*" several of us exclaim in English.

当我们读到书的最后一页时，Joel老师问："如果你用放大镜看蝴蝶会发生什么？"

我们中有几个人用英语大声说："蝴蝶更大。"

We are showing our scientific knowledge of magnifine glasses, while practicing English. 我们一边练习英语，一边展示放大镜的科学知识。

On a later date, many of us show similar knowledge about binoculars. Belada has used binoculars over the weekend for bird watching. We look at some Galen has brought into school.

Joel first asks "What will happen if you look through the big lens?". Several of us answer "smaller" together. Then, "What will happen if you look through the small lens?" Many of us answer "bigger" together.

在后来的日子里，我们中的许多人对双筒望远镜表现出类似的知识。Belada周末用双筒望远镜观察鸟类。我们看到Galen带进学校一些东西。

Joel首先问："如果你透过大镜头看，会发生什么？"我们几个人一起回答"更小"。然后，"如果你透过小镜头看会发生什么？"我们中的许多人一起回答"更大"。

50

EXPLORATION

Belada's weekend bird watching.
*Belada*周末观鸟活动
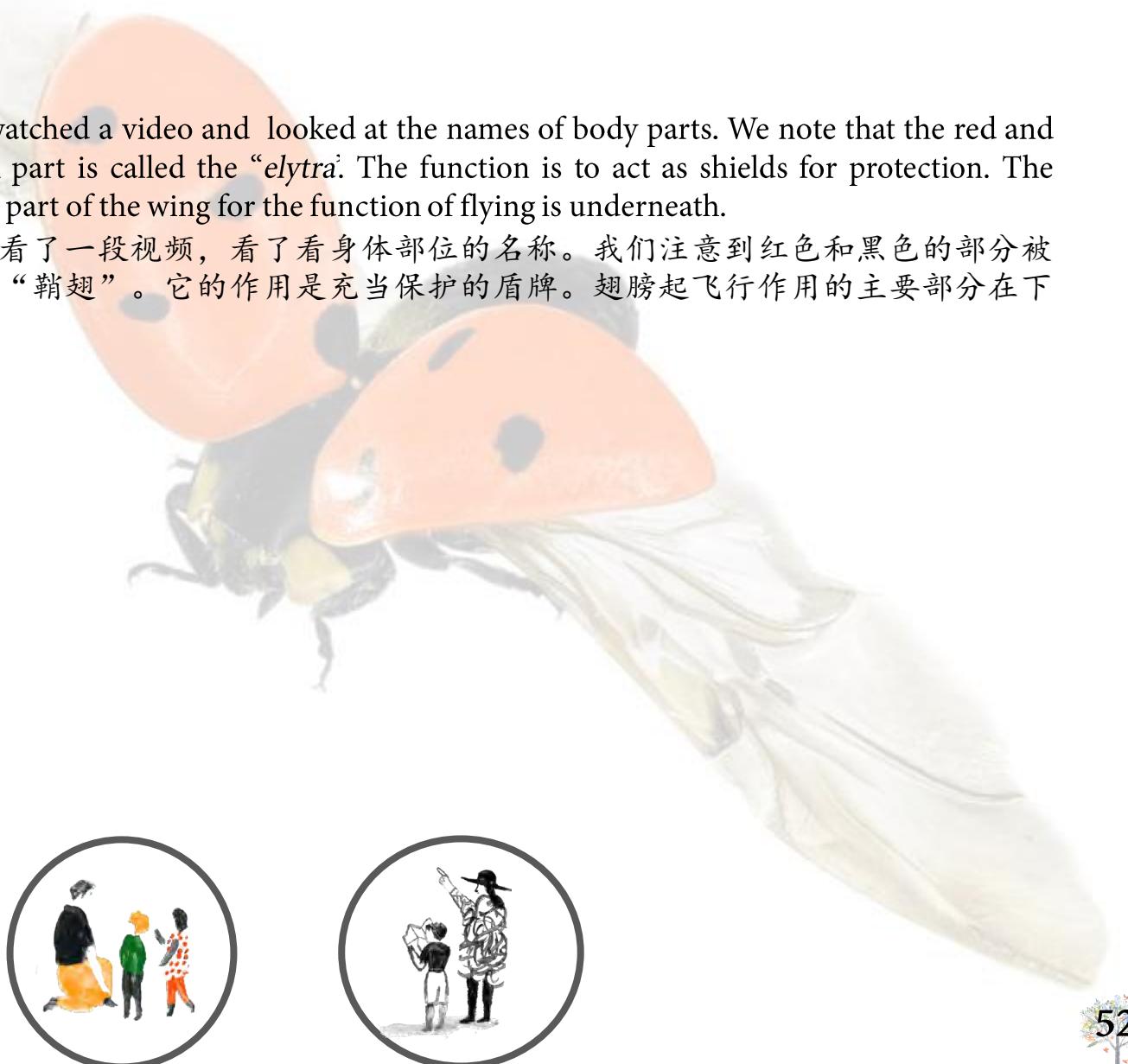
Belada's comments on the red and black part of the ladybug not being the wings, also fascinates Teacher Joel and gets him thinking. He has gone away to research this himself. Now, today, we have a follow-up discussion.

Belada关于瓢虫的红色和黑色部分不是翅膀的评论也让Joel老师很着迷，并引起了他的思考。他亲自去研究了。今天，我们有一个后续的讨论。
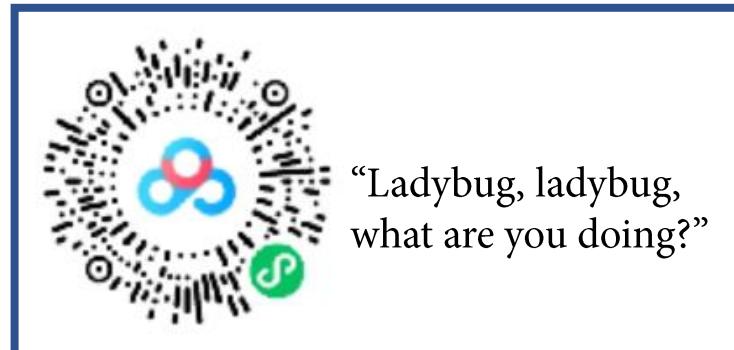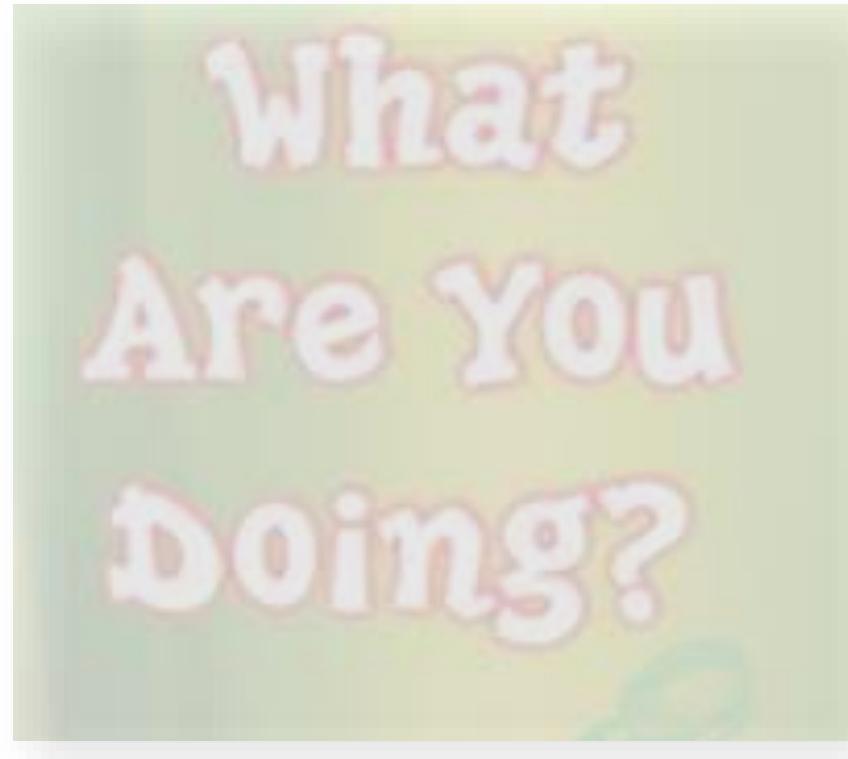
We watched a video and looked at the names of body parts. We note that the red and black part is called the "*elytra*". The function is to act as shields for protection. The main part of the wing for the function of flying is underneath.

我们看了一段视频，看了看身体部位的名称。我们注意到红色和黑色的部分被称为"鞘翅"。它的作用是充当保护的盾牌。翅膀起飞行作用的主要部分在下面。

EXPANSION

After this conversation, we follow teacher Joel to read the book we have in class called "Ladybug, Ladybug, What Are You Doing?" This tells us about some of the different activities including coming out of it's pupa and moving around for food.

对话结束后，我们跟着Joel老师读了我们课上的书《瓢虫，瓢虫，你在做什么?》这告诉我们一些不同的活动，包括从蛹里出来，四处觅食。

EXPANSION

"Ladybug, ladybug, what are you doing?"
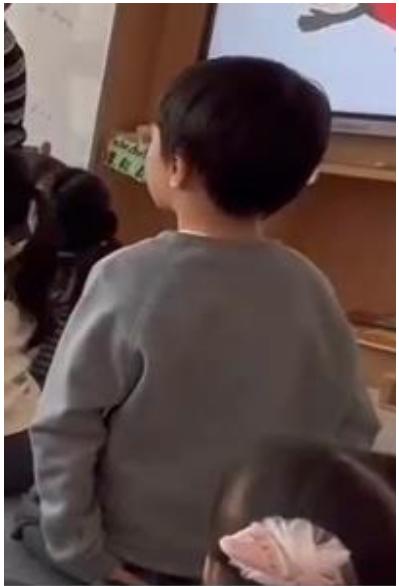
In one personal project, Elina later teaches herself to read the book "Ladybug, Ladybug, What Are You Doing?"

在个人项目中，Elina自学阅读《瓢虫，瓢虫，你在做什么?》
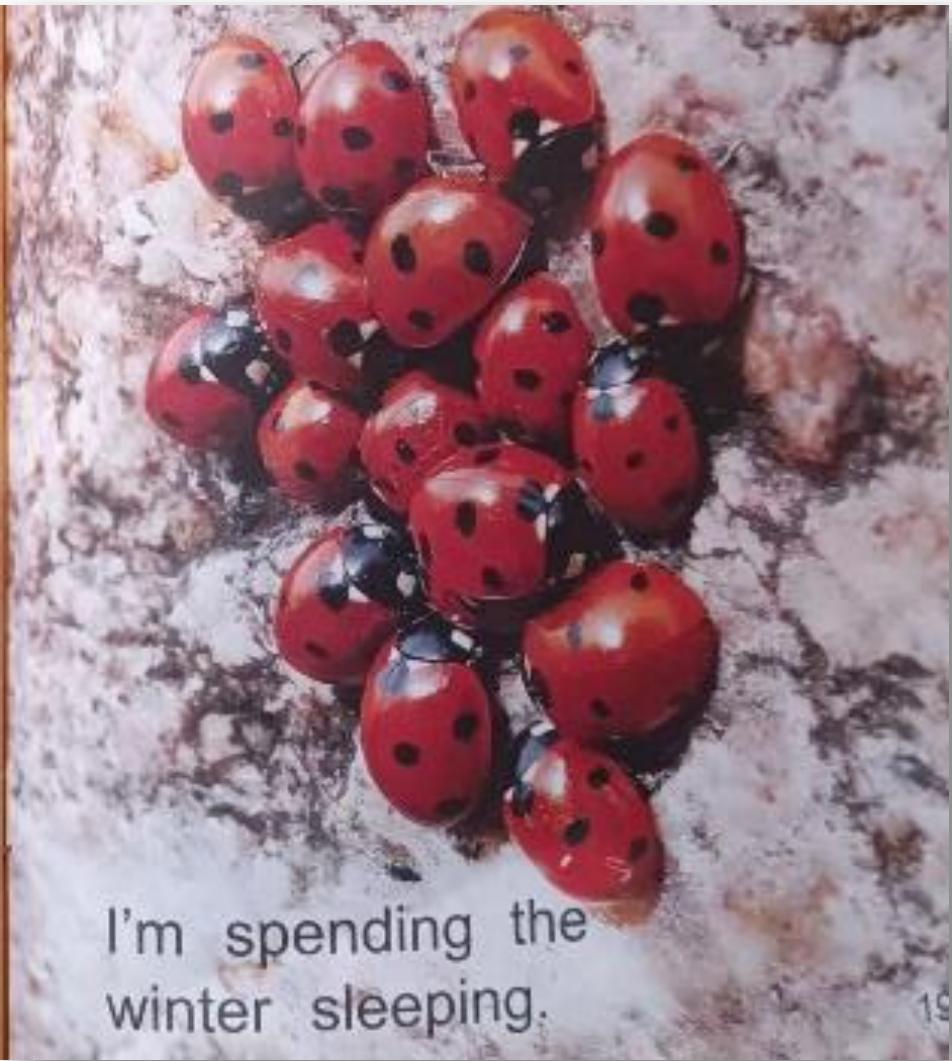
At the very end, we get to the line "I'm spending the winter sleeping." Zhong asks "Why?" in English in wonder, which leads us to our next discussion…

在最后，我们看到这句台词"我在过冬睡觉。"Zhong 问道："为什么?，这就引出了我们的下一个讨论……

Zhong is asking questions and stretching his curiosity.
Zhong一边问问题，一边拓展自己的好奇心

I'm spending the winter sleeping.

EXPANSION

October 24th (10/24)

Inspired by Zhong's question on why the ladybug hibernates for winter, today, we have a follow up discussion on hibernation.

受Zhong关于瓢虫为什么冬眠过冬的问题启发，今天我们继续讨论冬眠的问题。

We watch a video from Dr Bionics. We are introduced to some other animals as well that hibernate. These include bears, bats, snakes and hedgehogs. They hibernate to protect themselves when it is cold and there is limited food. Some animals eat lots of food before they hibernate. Some store food and wake up while hibernating to eat.

我们观看Dr Bionics的视频。我们还了解了其他一些冬眠的动物。这些动物包括熊、蝙蝠、蛇和刺猬。当天气寒冷，食物有限时，它们会冬眠来保护自己。有些动物在冬眠前会吃很多食物。有些会储存食物，在冬眠时醒来进食。

EXPANSION

As we went we answered some questions in English as we went,我们用英语回答了一些问题

Joel: "*Why do some animals need to hibernate?*"
Elsa and Belada: "*Because it's very, very cold.*"
Joel: "*Where might animals hibernate?*
Eva: "*In a cave.*"
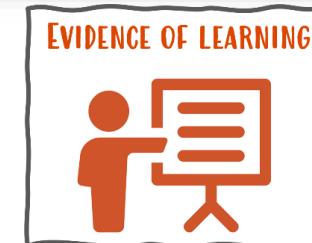
Joel: "为什么有些动物需要冬眠?"
Elsa and Belada: "因为天气非常非常冷。"
Joel: "动物会在哪里冬眠?
Eva: "在一个山洞里。"

Relating back to our Jurassic Park, Joel asks if dinosaurs hibernate. We all say that we don't think they do. Together, we research online and confirm that they probably didn't
回到侏罗纪公园，Joel问恐龙是否冬眠。我们都说我们不这么认为。我们一起在网上调查，确认他们可能没有

EVIDENCE OF LEARNING

Tune in here as we review the names of the seasons in English, and then <u>Eason</u> is immediately able to note that animals hibernate in winter.

当我们回顾季节的英文名称时， <u>Eason</u>马上就能注意到动物在冬天冬眠。

<u>Post Project Teacher Reflection</u>项目后教师反思
Maybe we could have gone further with how different animals protect themselves in winter. Alternatively, comparing hibernators with non-hibernators. Students only had limited interest in this topic however, so we instead shifted focus back to our main Jurassic Park, which was developing at the time.

也许我们可以进一步研究不同动物在冬天是如何保护自已的。或者，比较冬眠动物和非冬眠动物。然而，学生们对这个话题的兴趣有限，所以我们把注意力转回了当时正在开发的侏罗纪公园。

With our developed interest in ladybugs, we have also added a ladybug chart and discuss the names of different ladybugs in English.

We have a focus on the number of different spots We count the spots together and name the "Seven-spot Ladybird" and "Ten-spotted Ladybird."

Elina: Pointing at the yellow ladybird on the bottom row. "*22-spot Ladybird*".

Eason and Galen together exclaim "*Wow, 22.*"
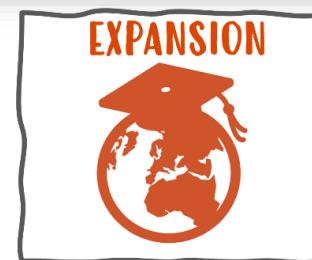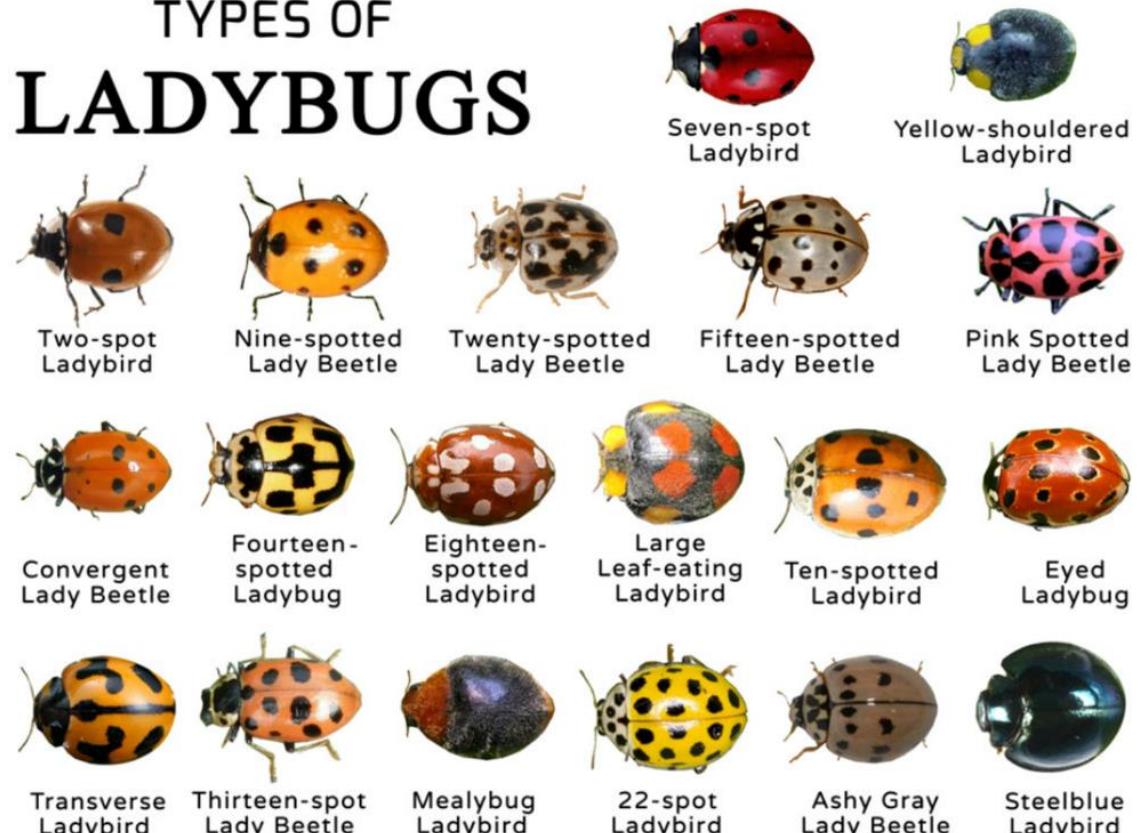
随着我们对瓢虫的兴趣越来越浓厚，我们还添加了一个瓢虫图表，并讨论了不同瓢虫的英文名称。
我们把不同的斑点数在一起，并命名为"七星瓢虫"和"十星瓢虫"。

Elina：指着最下面一排的黄色瓢虫。"22星瓢虫"。

Eason, Galen一起惊呼："哇，22。"

TYPES OF LADYBUGS

Seven-spot Ladybird — Yellow-shouldered Ladybird

Two-spot Ladybird — Nine-spotted Lady Beetle — Twenty-spotted Lady Beetle — Fifteen-spotted Lady Beetle — Pink Spotted Lady Beetle

Convergent Lady Beetle — Fourteen-spotted Ladybug — Eighteen-spotted Ladybird — Large Leaf-eating Ladybird — Ten-spotted Ladybird — Eyed Ladybug

Transverse Ladybird — Thirteen-spot Lady Beetle — Mealybug Ladybird — 22-spot Ladybird — Ashy Gray Lady Beetle — Steelblue Ladybird

EXPANSION

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We follow Teacher Joel to touch our shoulders, as we learn the name "Yellow-shouldered Ladybird." in English.

EXPANSION

Post Project Teacher Reflection项目后教师反思
With the fascination in different types of ladybug, we could perhaps have found gone further in discussing the differences.
随着对不同类型的瓢虫的迷恋，我们可能已经发现了进一步讨论的差异

<u>December 1st (12/01)</u>

This afternoon we had been watching another documentary video on strange bugs. However, as soon as it finishes, <u>Eason</u> and <u>Galen</u> exclaim in English, "*I want grasshopper or ladybug.*" The passion is still there.
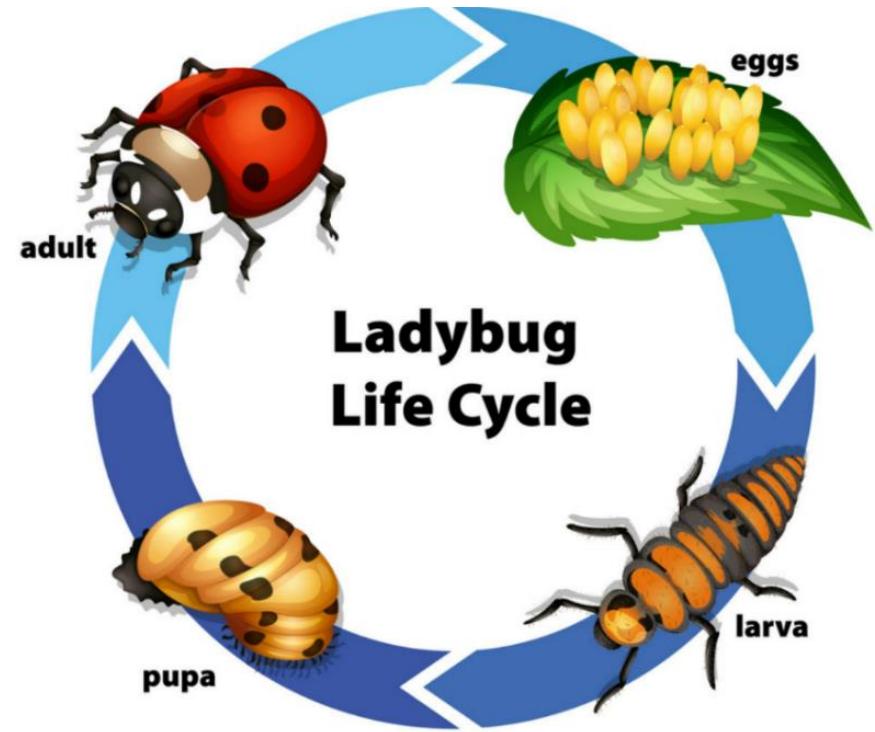
We hence watch a video on the ladybug life cycle, learning how it hatches from an egg and is a larva. Then the larva forms a pupa, attached to a leaf. Later the adult ladybug emerges.
We consolidate our discussion on December 2nd.

今天下午我们又看了一部关于奇怪虫子的纪录片。然而，当它完成时，<u>Eason</u>和<u>Galen</u>用英语惊呼："我要蚱蜢或瓢虫。"激情依然存在。

因此，我们观看了一段关于瓢虫生命周期的视频，了解它如何从卵中孵化并成为幼虫。然后幼虫形成蛹，附着在叶子上。后来，成年瓢虫出来了。
我们在12月2日巩固讨论。

Ladybug Life Cycle

adult — eggs — larva — pupa

EXPANSION

On the first day, we watch the video with awe and wonder. <u>Zhong</u> excitedly asks in English "*Is it dangerous?*" as we see the graphic picture of the pupa. On December 2nd, as we consolidate, we are able to answer the comprehension questions about the life cycle. <u>Vivian</u> and <u>Carey</u> can read the digit "5000" for the number of species of ladybug.

第一天，我们怀着敬畏和惊奇的心情观看视频。Zhong兴奋地用英语问："危险吗?"我们看到了蛹幼虫的图像。
12月2日，随着我们的巩固，我们能够回答关于生命周期的理解问题。Vivian和Carey能读出数字"5000"表示瓢虫的种类。

Zhong is exercising his scientific curiosity. Vivian and Carey are showing strong knowledge of numbers in English.
Zhong正在锻炼他的科学好奇心。 Vivian和Carey在英语中表现出很强的数字知识。

EXPANSION
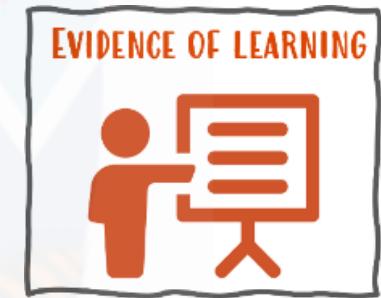
Watching the video on the second day.

Review.

EXPANSION

EVIDENCE OF LEARNING

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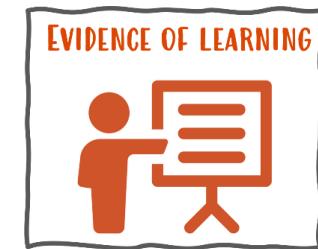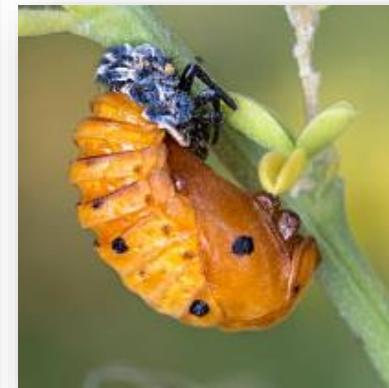
December 2nd (12/02)
During outdoor play immediately after discussion on the ladybugs, Yoyo finds a pupa on a piece of grass outside!
在讨论完瓢虫后的户外玩耍中，Yoyo在外面的一片草地上发现了一个蛹！

Found a ladybug pupa!
发现了一个瓢虫蛹！

EXPERIENCE

EVIDENCE OF LEARNING

In finding this, she is showing very attentive exploration and strong observation skills. Writing a label for it – "pupa" – she also practices her writing.
在发现这一点的过程中，她表现出了非常细心的探索和很强的观察能力。为它写一个标签——"蛹"——她还练习写作。

She also finds tiny grasshoppers this day.
这一天她还能找到小蚂蚱

December 6th (12/06)
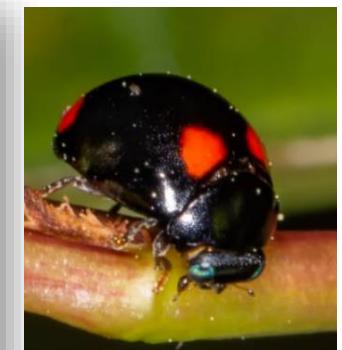
Returning to our bug hunting today after some time off, we have a very exciting discovery!

Yoyo, Lisa, Galen and Belada find a "Four-spotted ladybug". They were initially a little scared that it might be poisonous. We looked this up on the smart phone however and confirmed that the ladybug, was in fact safe.

在休息了一段时间后，我们今天又回到了寻找虫子的话题上，我们有一个非常令人兴奋的发现！

Yoyo，Lisa，Galen,Belada发现了一只"四星瓢虫"。他们一开始有点害怕它可能有毒。然而，我们在智能手机上查了一下，并确认瓢虫实际上是安全的。

Claiming that the ladybug may be poisonous, they are practicing their scientific thinking and making hypotheses.
他们声称瓢虫可能有毒，并在实践他们的科学思维和假设。

EXPERIENCE

December 16th   (12/16)
It is still going strong, as several of us find a two-spotted ladybug on the window sill behind out props for the Winter Performance!
有些小朋友在我们的冬季表演道具后面的窗台上发现了一只两星瓢虫！

EXPANSION

November 24th (11/24)

Finding out about the strange and wonderful bugs on the island of Madagascar. How do they look and behave? How are they adapted to their environment?

了解马达加斯加岛上奇怪而奇妙的虫子。他们的长相和行为如何?它们是如何适应环境的?

December 1st (12/01)

We watch "15 Strange Bugs You Didn't Know Existed". We find out about bugs with a range of body parts and features from around the world.. This includes one that looks like a gem and one the size of a mobile phone

我们观看了"15种你不知道存在的奇怪虫子"。我们发现了来自世界各地的各种身体部位和特征的虫子。其中包括一个看起来像宝石的，还有一个手机大小的

We are shown more about the biodiversity of living things and how they are adapted to the environment. Our geographical awareness is also enhanced as we are shown on the map where the bugs are from.

视频向我们展示了更多生物的多样性以及它们是如何适应环境的。我们的地理意识也增强了，因为我们在地图上看到了虫子的来源。

Over the weeks, during Library visits and personal reading time, many of us have developed our own knowledge as we look at books about bugs, dinosaurs and other living things. Lots of these books have been brought from home.

在过去几周的图书馆参观和个人阅读时间里，我们中的许多人在阅读关于昆虫、恐龙和其他生物的书籍时，发展了自己的知识。这些书有许多是从家里带来的。

Thank you once again parents and families for your support in building up our classroom environment!

再次感谢各位家长和家人对我们课堂环境建设的支持！

EXPLORATION

Even if we can't read all the words yet, we are learning with the support of the pictures. Looking at the books, we are enhancing our curiosity and taking an autonomy in learning more about our interests. We are also developing our love of books and literature.
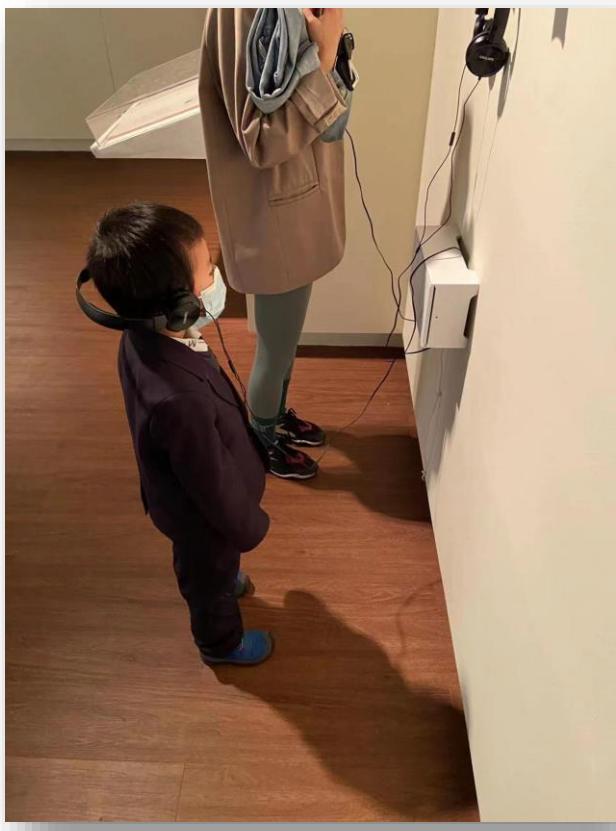
即使我们还不能阅读所有的单词，我们也在图片的支持下学习。看书，我们正在增强我们的好奇心，并采取自主学习更多关于我们的兴趣。我们也在发展对书籍和文学的热爱。

Eva and Eason have brought the same dinosaur book from home. They show great responsibility in writing their name so they know whose is whose.
Eva 、Eason从家里带了同样的恐龙书。他们在写自己的名字时表现出极大的责任感，所以他们知道谁是谁。

🦁 Sylvia 💛@微信

果果看的昆虫展 看看可以做演讲练习😁

Joel Pope@微信

"🦁 Sylvia 💛: 果果看的昆虫展 看看可以做演讲练习[Grin]"
- - - - - - - - - - - - - - -
OK. Thanks for sharing.

EXPLORATION

…but don't forget about the chrysalis and butterfly!
 …但是不要忘了蛹和蝴蝶!

October 17th (10/17)

After a discussion on fiction against non-fiction books today, we choose to read an educational fictional story telling us about the life cycle of a caterpillar, from egg to butterfly. This is in a combination of Chinese and English. We note in the book that the pupa the caterpillar goes into is labelled in English as a "chrysalis".

Teacher Gu checks with Teacher Joel, *"There is also a cocoon, right."*
Joel replies, *"Yes, I am not sure about the exact difference. Let me check?"*

Joel researches on his smart phone and notices that there are a lot of features to the difference. Many of us say we are keen to learn more about this later.

在今天的小说与非小说类书籍的讨论之后，我们选择阅读一个具有教育意义的虚构故事，讲述了毛毛虫从蛋到蝴蝶的生命周期。这是中文和英文的结合。我们在书中注意到，毛虫进入的蛹在英语中被标记为"chrysalis"。

顾老师问Joel老师："还有一个茧，对吧?"
Joel回答说："是的，我不太清楚确切的区别。让我看看?"

Joel研究了一下他的手机，注意到有蛹和茧有很多不同点。我们中的许多人说，我们希望以后能了解更多有关这方面的知识。

ENTRY

Today we introduce the difference between a chrysalis and cocoon in Chinese in our Morning Meeting. We discuss comprehension questions as we go, to deepen thinking. Key points we note are as follows:

今天我们在晨会上介绍了汉语中chrysalis和cocoon的区别。我们边走边讨论理解性问题，以加深思考。我们注意到的要点如下：

EXPANSION

- Generally, a butterfly comes from a chrysalis and a moth from a cocoon.
- The butterfly caterpillar transforms its body into the hard chrysalis. The cocoon begins with a silk layer spun by the caterpillar around itself. Then a hard layer forms on the inside.
- The butterfly chrysalis will hang downwards from a stem branch. The moth cocoon will be spun around a tree stem or stick. It may camouflage here.
- 一般来说，蝴蝶来自蛹，飞蛾来自茧。
- 蝴蝶毛虫把它的身体变成坚硬的蛹。茧开始时，毛毛虫在自己周围纺一层丝。然后在里面形成坚硬的一层。
- 蝶蛹会从茎枝上垂下来。蛾茧会绕着树干或树枝旋转。这里可能有伪装。

See clips from the discussion here.

BUTTERFLY CHRYSALIS

Credit: Pon Malar

Credit: Baluperoth

MOTH COCOON

Credit: FirOOO2

Credit: Igors Jefimovs

We are enhancing our scientific knowledge, but also practicing out observation and thinking as we discuss the differences.
我们在提高我们的科学知识的同时，也在讨论差异的时候练习我们的观察和思考。

October 19th – 21st (10/21)

As a provocation to see if there is interest in further independent study of the difference between a chrysalis and a cocoon, Teacher Gu sets up a large section of paper with "chrysalis" on one side and "cocoon" on the other, along with some print outs showing pictures and information.
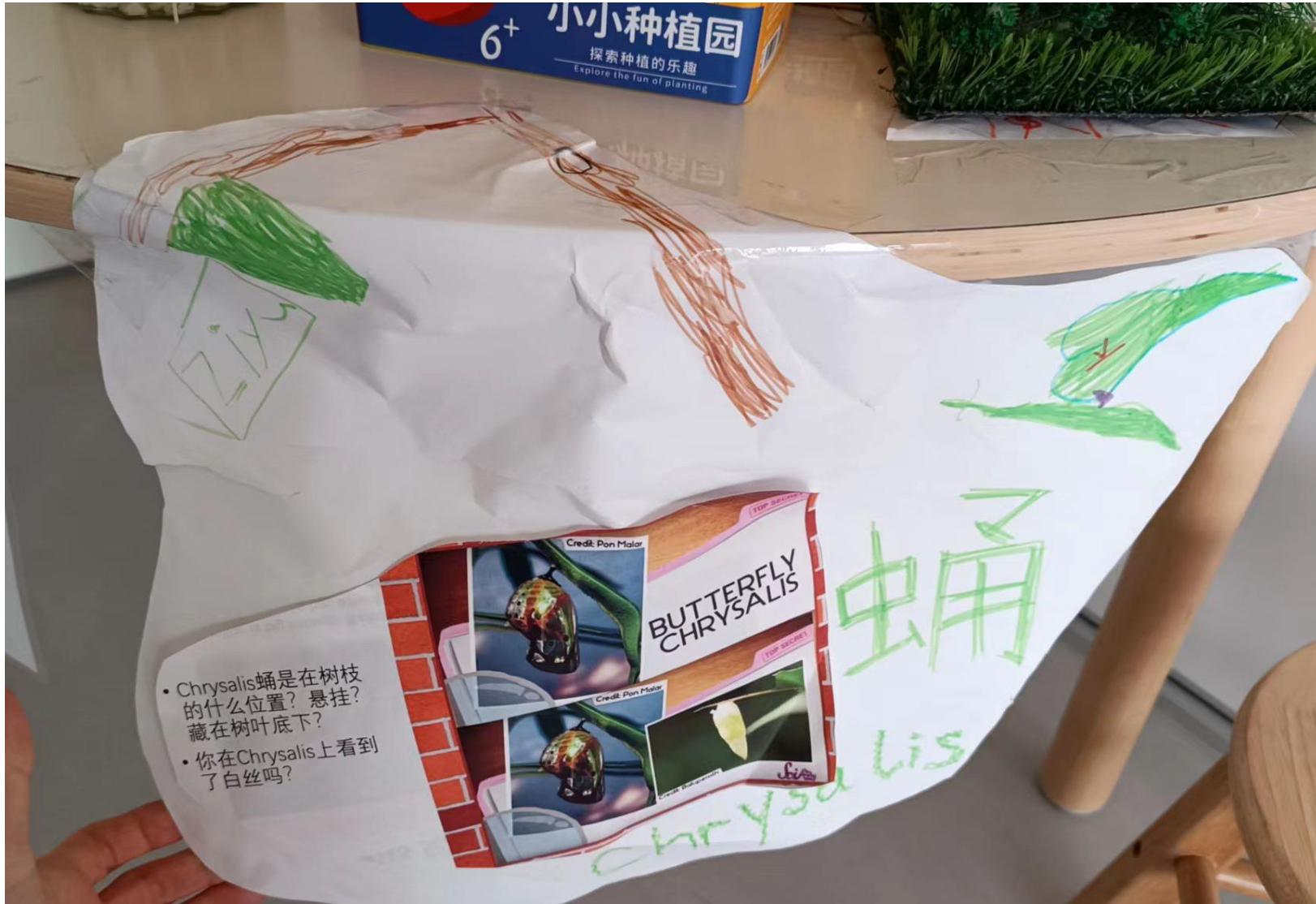
为了试探大家是否有兴趣对蛹和茧的区别进行进一步的独立研究，顾老师拿出了一大块纸，一边是"蛹"，一边是"茧"，还有一些打印出来的图片和信息。

Several of us carefully study the difference and draw pictures of the chrysalis or cocoon and its surroundings.
我们中的几个人仔细研究了这种差异，并画出了蛹或茧及其周围的图片。

EXPLORATION

Ziyu (left), Elina (top) and Yoyo (right) at work.
Ziyu（左）、Elina（上）和Yoyo（右）在工作。

Here they are building up their own self-study and observation skills. Making their own presentation of the difference and appearance of each through drawings also helps them understand and reflect on the new knowledge.

他们在这里锻炼自己的自学和观察能力。用自己的图画来表现每一个的不同和外观，也有助于他们理解和反思新知识。

October 24th (10/24)

Yoyo's mum had seen the interest many of us had developed in bugs as well as our discussion on chrysalises and cocoons. She showed great kindness in buying two chrysalises for us to raise in the class.

Yoyo的妈妈看到了我们很多人对虫子的兴趣，也看到了我们对蛹和茧的讨论。她好心地买了两只蛹让我们在班上养。

In a small project, Galen, Belada and Yoyo set up a table for the chrysalis. Belada uses fake grass, model plants and model bugs to make a natural looking area next to the box, making it appear welcoming and homely. Galen's up the table by sticking on the drawings we had done for the difference between a chrysalis and a cocoon, as well as further information on moths against butterflies. Yoyo makes a sign saying "no touching".
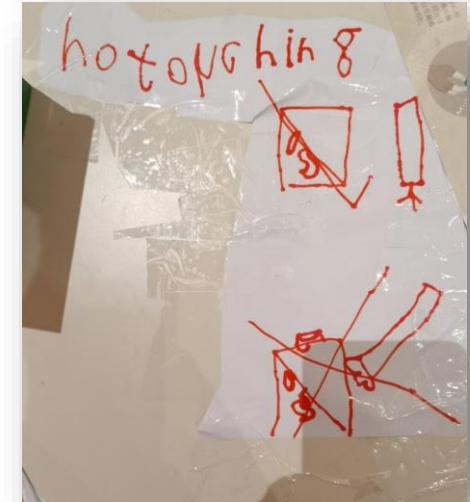
在一个小项目中， Galen，Belada,Yoyo为蛹搭建了一张桌子。Belada用假草、模型植物和模型虫子在盒子旁边制作了一个自然的区域，让它看起来很受欢迎，很温馨。盖伦把我们画的蝶蛹和茧的区别，以及飞蛾和蝴蝶之间的进一步信息粘在了图纸上。Yoyo做了一个"禁止触摸"的标志。

Galen and Yoyo studying the chrysalis at the table.
Galen,Yoyo在桌旁研究蛹。

Belada carefully setting up the natural area.
Belada精心布置了自然区域。

They are practicing team work as they cooperate this. Belada and Galen are practicing creativity as they set up the table in an engaging way. Yoyo is practicing writing and communication as she writes the "No touching" sign.

他们在练习团队合作。 Belada 和Galen在尝试各种创意，让蝴蝶桌更加引人注目。Yoyo正在练习写作和交流，她正在写"禁止触摸"的标志。

October 24th (10/24) Onwards ~

Over the coming days, several of us keep an observation log of the chrysalis each day. See Lisa, Anna and Ziyu at work below.
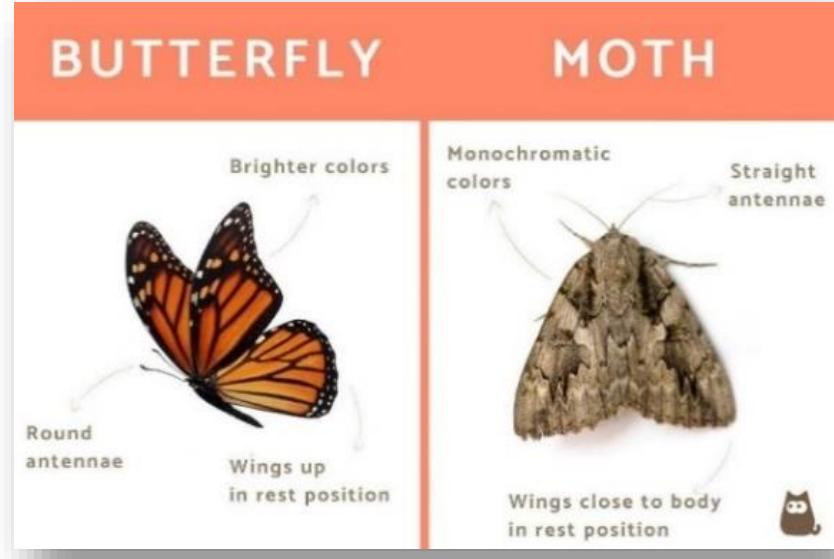
在接下来的几天里，我们中的几个人每天都对蛹进行观察。请看下面工作中的 Lisa, Anna, Ziyu 。

They are being exposed to the concept of making a log and practicing observation and note taking.

他们接触到做日志的概念，练习观察和做笔记。

Over the coming days and weeks, the butterfly table serves multiple purposes.
在接下来的几天和几周内，蝴蝶桌有多种用途。

When many of us catch a butterfly or moth outside or in the classroom, we will use the comparison sheet to determine which it is.
当我们中的许多人在室外或教室里捉到一只蝴蝶或蛾子时，我们会用对比表来确定它是哪一只。

Post Project Teacher Reflection项目后教师反思
With continued interest in bugs, we could maybe have gone further with butterflies vs. moths also.
随着对昆虫的持续兴趣，我们可能也可以进一步研究蝴蝶和飞蛾。
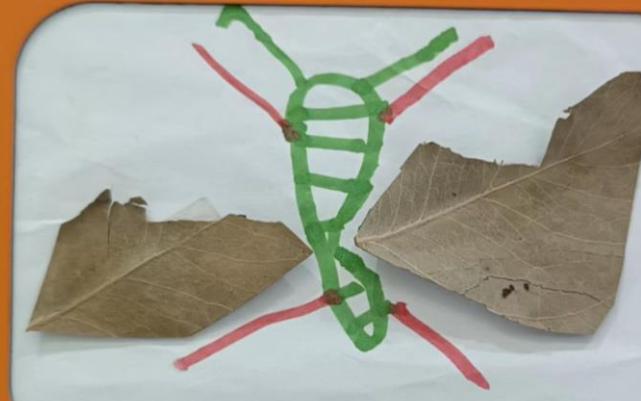
Yoyo uses a combination of drawing and natural materials to make a butterfly picture.
Yoyo结合绘画和天然材料制作了一幅蝴蝶图。

Using natural materials and techniques combined, increases awareness of possibilities for creating artistic beauty.
使用天然材料和技术相结合，增加了创造艺术美的可能性。

Here, she is practicing pre-writing, to label the butterfly.

See her introducing it and the butterfly table for our Open Day video here.
Yoyo在我们的开放日视频中，介绍自己的作品和蝴蝶桌。

EXPLORATION

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Yoyo's finished butterfly pictures.

EVIDENCE OF LEARNING

…unfortunately, the chrysalises didn't make it…不幸的是，蛹没能活下来…

November 10th (11/10)
Despite out care and attention of the chrysalises, over the days, they have both died.
尽管我们悉心照料，这些天来，它们都死了。

Around the same time, some of our pet hermit crabs have also died.
大约在同一时间，我们的一些宠物寄居蟹也死了。

During our morning meeting, we have a brief discussion in Chinese on what might happen when an animal dies. Elsa and Elina note "*Maybe it will be broken down in the soil.*" Belada adds "*The body might get eaten by the animals.*
在上午的会议上，我们用中文简短地讨论了动物死亡后会发生什么。 Elsa 和Elina注意到"也许它会在土壤中分解。"
 Belada补充说："尸体可能会被动物吃掉。

We also read a brief story about a funeral to learn more about these.
我们还读了一个关于葬礼的小故事来了解更多。

We are building our critical thinking skills and reflecting on our scientific knowledge as we consider what happens after death. We will be able to build up our scientific knowledge here over time.
当我们思考死后会发生什么时，我们正在培养批判性思维技能，反思我们的科学知识。随着时间的推移，我们将能够在这里积累我们的科学知识。

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Outside, many of us work together to bury chrysalises and crabs. 在户外，我们很多人一起埋蛹和螃蟹。

Anna is the first one to help with burying as she digs a hole for the first chrysalis.
Anna是第一个帮忙掩埋的人，她为第一个（死去的）蛹挖了一个洞。

Lisa (left), Eva (top left) and Holly (up) practice their gross motor skills and strength in their hands as they dig.
Lisa（左）， Eva（左上）和Holly（上）在挖掘时练习他们的大肌肉运动技能和力量。
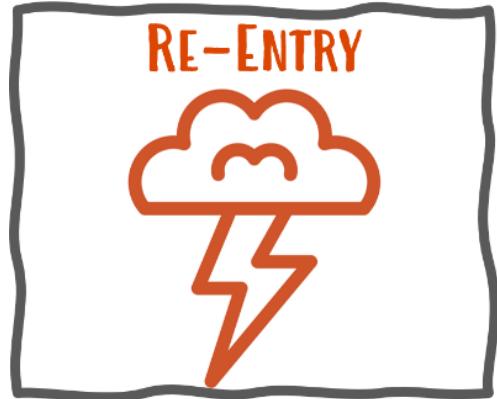
Further to our class discussion on what will happen when an animals dies, several people want to know what will happen when it is buried. Teachers explain that it will be broken down by microorganisms in the soil.
除了我们课堂上关于动物死后会发生什么的讨论之外，还有几个人想知道动物被埋葬后会发生什么。老师解释说，它会被土壤中的微生物分解。

EXPLORATION

November 22nd (11/22)

Teacher Joel had bought us a new chrysalis, and this has now arrived.
Joel 老师给我们买了一个新的蛹，现在这个已经到了。

In the morning, Yoyo is keen to take a lead in setting this up without teacher supervision. Here she shows great perseverance and care as she carefully uses the doubled-sided tape to attach it to the twig.
早上，Yoyo渴望在没有老师监督的情况下带头设置这些。在这里，她表现出了极大的毅力和细心，她小心地用双面胶带把它粘在小树枝上。

Vivian and Belada come to assist. Vivian shows everyone the correct way to set up the light and work it. Belada will hold the stick, while Yoyo works to attach the chrysalis.

Vivian和Belada前来协助。 Vivian向大家展示了正确的设置和工作方式。 Belada拿着棍子， Yoyo负责粘上蛹。

How can we look after it????

<u>November 23rd</u>   (11/23)

Noting that we likely did not take proper care of our previous chrysalis, today we have a discussion on how to take care of the chrysalis. Teacher Joel guides us to consider the key points which we compare to the instruction book.

注意到我们可能没有妥善照顾我们之前的蛹，今天我们来讨论一下如何照顾蛹。Joel老师引导我们考虑与说明书比较的要点。

(1)   <u>Temperature.</u>*温度*

<u>Vivian</u>   notes in English "*If too hot, it will die. If too cold, it will die.*" We agree on not too hot or cold. We look at the instruction book and note that it says $22°C - 28°C$. Together we go through the numbers to note this can mean, 22, 23, 24, 25, 26, 27 or 28 degrees Celsius. We look at the room temperature and note it is only $19°C$. Several of us quickly note together that this is too cold and we need to make it hotter.

<u>Vivian</u> "如果太热，它会死。如果太冷，它就会死。"我们同意不太热或太冷。我们看说明书，注意到上面写着22°C–28°C。我们一起通过数字来注意这可能意味着22、23、24、25、26、27或28摄氏度。我们看看室温，注意到它只有19°C。我们几个人很快一起注意到这太冷了，我们需要让它更热。

Tune in to see our discussions in English here.
扫码观看我们的讨论

(2) <u>Water</u>水

<u>Elina</u>   correctly indicates that we need to use the water spray bottle. We look in the instruction book together and note that we need to use the water 2 – 3 times per day.

<u>Elina</u> 正确表示我们需要使用喷水瓶。我们一起看说明书，并注意到我们需要每天使用2 – 3次水。

(3) Light 光照

We briefly discuss whether the chrysalis needs light or dark conditions. Most of us think light. We check in the instruction book and note that a little light is needed.

我们简要讨论了蛹是需要光照还是黑暗条件。我们大多数人想到的都是光。我们查了一下说明书，注意到需要一点光。

Having this discussion on looking after the chrysalis in English, we are practicing our English comprehension and expression. This is while reflecting scientifically. The discussion on the temperature introduces us to ranges in math. We are also briefly introduced to degrees Celsius. Finally, as we look at the instruction book together, we learn more about this type of book.

通过这个关于用英语照看蛹的讨论，我们锻炼了我们的英语理解和表达能力。这是在科学反思的时候。关于温度的讨论给我们介绍了数学上的范围。我们还简要介绍了摄氏度。最后，当我们一起看说明书时，我们对这种类型的书有了更多的了解。

To ensure the correct temperature, which we noted needs to be higher, we use a heating mat and put the chrysalis box on a new table. We use the light that came with the box to provide light. Finally, we ensure that we use the water spray to keep the air moist, as required. 为了确保正确的温度，我们注意到需要更高的温度，我们使用了加热垫，并将蛹盒放在一个新桌子上。我们用盒子自带的灯来照明。最后，我们确保按照要求使用水喷雾来保持空气湿润。

Eason, Carey and Galen show great care as they put fruit in the box to feed the butterfly.

Eason, Carey ,Galen他们小心翼翼地把水果放进盒子里喂蝴蝶

EXPERIENCE

Taking better care of the chrysalis furthers the development in sense of responsibility we have gained throughout this semester as we look after the other class pets we have.
在我们照顾班级其他小动物的过程中，孩子们已经开始萌发一定的责任感，照顾蝶蛹进一步发展了我们在整个学期中获得的责任感。

Throughout the semester, many of us help at different times to clean our goldfish tank. See Anna, Galen and Belada in action here.
整个学期，我们中的许多人在不同的时间帮助清理我们的金鱼池。看Anna, Galen 和 Belada正在清理 。

Each day, a different one of us in on duty to be involved in feeding our turtle, tropical fish, goldfish and hermit crabs.
每天，我们都会随机邀请不同的小朋友值日，负责喂养我们的乌龟、热带鱼、金鱼和寄居蟹。

…and now it hatches…现在它孵化了…

December 7th (12/07)
We are just leaving the classroom to line up for Library class. Suddenly everyone runs back in exclaiming in English "*Joel, the butterfly has come out!*"

我们正要离开教室去排队上图书馆课。突然，每个人都跑回来用英语喊道："Joel，蝴蝶出来了！"

Eva and further practices identification as they try to identify which butterfly it is from our chart.

Eva进一步的练习，试图从我们的图表中识别那只蝴蝶。
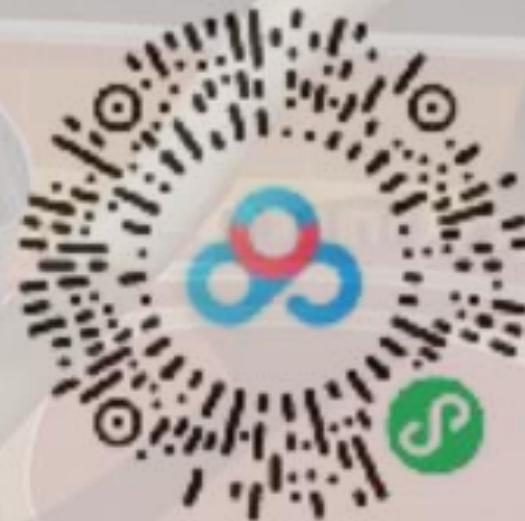
This afternoon, we go outside to release the butterfly.

Goodbye beautiful butterfly!

今天下午，我们去外面放生蝴蝶。

再见了，美丽的蝴蝶！

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项目反思！

这个项目的性质在某些方面与我们班同时并行的侏罗纪公园项目非常不同。"侏罗纪公园项目"主要集中在一个建造一个建筑这样的任务上，即开发恐龙侏罗纪公园。而"虫子的一生"则是很多小型项目、各种持续不断新的探索结合起来的。从这个意义上说，这两个项目是相互补充的。

这两个项目都与生物有关，而且有一些自然的重叠，尤其是对动物或植物的特征、特征和适应性的关注。就像我们中的许多人在9月份入学之前就对恐龙产生了兴趣一样，Galen和Zhong在开学时也已经对昆虫产生了浓厚的兴趣，由此拓展到全班。

关于这个虫子项目的一个特别美好的事情是，我们看到了孩子们的的好奇心和开放性思维，以及去探索世界的激情。这在捉虫子中表现得尤其明显，随着时间的推移，越来越多的小朋友热衷于加入并尝试不同的方法去捉虫子。虽然有些人参与的时间比其他人要短，但观察到孩子们对尝试新活动的兴趣，以及我们在合作过程中培养的社区意识，这是一件很棒的事情。总的来说，虫子似乎确实把大家凝结到了一起。

在项目中，作为老师，我们都专注于倾听学生，课堂探索也是植根于孩子们的活动、思考和想法。学年开始，只是一个两人小组开始捕捉虫子，后来我们用小组讨论的方式研究新的捕捉方法，Belada还提出了制作捕虫网的主意。我们探索的知识领域，包括瓢虫的特征和瓢虫的生命周期等，都来自学生自己萌发的问题和观察。我们的一些活动，包括对蛹和茧的比较，则来自于老师对孩子兴趣的观察，做了一些邀请式活动和知识技能的延伸。只要存在兴趣，我们就会鼓励孩子进一步探索。

在孩子们兴致缺缺的部分，老师提供的想法其实不会得到进一步的采纳。举个例子，起初有的孩子似乎有兴趣为昆虫建造一个小家。我们便提供了很多材料为孩子们捕获的虫子来建造家园，但经过观察，我们发现孩子的兴趣点是实际的捕获过程。类似地，正如书中前面提到的，冬眠这个主题我们本来也可以进一步进行，但孩子们兴趣有限，所以我们没有继续这一条线。

总的来说，我们一直在坚持做基于孩子兴趣的生成式项目。
在整个项目中，我们老师也都是和孩子一起研究，学习和讨论与虫子相关的新的信息和知识。

项目反思！

仔细想想，其实在这个项目中，我们也有许多事情，也许可以用不同的方式来做。

在项目里，我们确实对孩子的技能和兴趣的发展进行了一些引导，比如我们提供画虫子的纸卷，提供蛹和茧的比较，以及根据腿的数量对虫子进行分类等。然而，如果我们对此关注更多一些，我们本可以提供更多这样的环境。举一个例子，我们其实可以提供很多天然材料给孩子们去制作他们自己的虫子栖息地。制作一个虫子小百科书也可以是另一个很好的例子。除此之外，我们在项目中保留更多的照片：老师前期准备材料和邀请式活动的照片，最终学生作品的照片之前，比如蚕蛹和茧的比较本可以呈现一些很好的对比结果照片作为学习成果。同样地，有几个想法本来可以进一步拓展。例如，在我们的捕虫讨论中，孩子们对有毒和危险的虫子有很大的兴趣。

除了科学学习、批判性思维、对知识的反思、中英语言的发展和艺术机会之外，还有一个本来肯定可以提供更多机会的领域——数学技能。虽然我们在整个学期的其他项目和活动中都涵盖了数学技能，但本可以在这个项目纳入更多数学相关内容。比如，孩子们捕获了许多不同的虫子，一种可能是记录并绘制已捕获的每种类型的虫子的数量。此外，记录在不同日期捕获的虫子，也更好地学习日期和时间的概念。

孩子们在瑞吉欧环境中可以自由地选择他们能做的活动，包括制作捕捉网和画他们自己选择的静物（虫子）画。老师在必要时会提供单独辅导、个人支持。当我们与个人讨论项目时，也有一些基于英语水平的个性化英语支持。不过确实，老师大部分活动还是比较泛化的，是针对整个集体的。在我们接下来开展的项目中，我们可以根据学生的个人需求和不同的学习途径，更加个性化地为他们提供参与机会和发展不同技能。

我们这个项目花了较长的时间在户外，但所有的活动还是都在学校里面。其实，到一个新的地方去"实地考察"捕捉虫子，或者到一个博物馆学习更多关于生物的知识，都是很好的X-day项目拓展，孩子们的经验可以在社会中充实，让我们可以进一步感受到"教室无处不在"。然而，由于当前新冠大流行造成的限制，我们没能实现有些可惜，希望大环境好转之后，我们可以在接下来的项目中实现这一"小愿望"。不过，通过周末分享，我们也看到孩子们在周末和家人一起在探索，比如周末外出捕虫，参观野生动物中心等，家庭的支持真是太棒了。

在整个项目中，我们不断地让家庭也了解我们每天、每周的活动。我们对包括捐赠书籍和捕虫设备，并为周末分享提供丰富素材的所有家庭再次表示衷心的感谢！

PROJECT REFLECTION!

The nature of this project was in some ways very different to the Jurassic Park project, which we also undertook this semester. That was largely focused on a single large task of developing a dinosaur Jurassic Park. This was a continual progression of smaller projects, work and explorations. In this sense, the two projects complimented each other well.

The two projects do have the connection of both being related to living things and there was some natural overlap, notably the focus on features, characteristics and adaptations of the animals or plants.

Just as many of us arrived in September with a previously developed interest in dinosaurs, Galen and Zhong in particular already had a passion for bugs when we began the semester. An interest was starting to emerge.

A beautiful thing about this bug project has been seeing the curiosity and open-mindedness of many of us in the class to explore each other's passions. This was shown particularly in bug catching, where over time, more and more of us were keen to join and try it out. Although some remained engaged in it for less time than others, it was wonderful to observe the interest in trying out a new activity, along with the sense of community we were developing as we collaborated on it. Bugs in general however, did seem to draw many of us together.

At all times over the weeks, as teachers, we put full focus on listening to students, allowing class explorations to emerge from their activities, ponderings and ideas. The bug catching, begun at the beginning of the year by a small group, was fully student-initiated. The methods we used to catch bugs came from group discussion, and the mini project creating a net was Belada's idea. The areas of knowledge we explored, including the features of a ladybug and ladybug life cycle came from questions and observations of students. Some of our activity, including the comparison of a chrysalis and cocoon came from teacher considerations of where interest might be. Where this interest did exist, there would be further exploration.

In areas where there was only limited interest, ideas would not be taken further. As an example, it had initially seemed that there might be interest in building homes for insect. We encouraged further opportunity to build homes for the bugs being caught, but realised the greater focus was in the actual catching process, so we followed this instead. Similarly, as mentioned earlier in the book, hibernation could have been taken further, but there was only limited interest, so we didn't pursue this route..

Overall, we continually worked to ensure the curriculum was emerging from the students.

Throughout the project we as teachers were researchers, learning and discussing new information related to bugs ourselves.

PROJECT REFLECTION!

On reflection, there were many things that could perhaps have been done differently.

Over the weeks, we did have some provocations for the development of skills and interest, including our roll of paper for drawing bugs, our chrysalis and cocoon comparison, and sorting bugs based on the number of legs. However, with more focus on our classroom environment, we could have provided more of these. An example might have been having lots of natural materials available for students to develop their own bug habitats. Bug fact sheet creation would be another example. We kept many photos of students in the action. More before photos of our material and provocation set up and of final student work, for example, the chrysalis and cocoon comparison would provide clearer physical evidence of accomplishments.

Similarly, there were several ideas that could potentially have been taken further. For example, there was a big interest in poisonous and dangerous bugs outside and in our bug catching discussion.

In addition to the scientific learning, critical thinking, reflection on knowledge, Chinese and English language development and artistic opportunities that emerged, one area where more opportunity could definitely have been provided was in the development of math skills. While we have had a focus on these throughout other projects and activities over the semester, more could have been incorporated here. With many of us catching many different bugs, one possibility could have been logging and graphing the number of each type of bug that had been caught. Also, keeping records of bugs caught on different days, to develop familiarity working with dates.

There was freedom and choice for the students in the activities they could do, including construction of a net and drawing still-life pictures of their choice. Individual support was provided with these where necessary. There was also some personalised support in English based on English level as we discussed elements of the project with individuals. However, many of our activities were broad, generalised and aimed at the whole group. In our coming projects, we can continually develop ways for students to get involved and develop skills based on their individual needs and learning pathways.

We did spend time outside, however all activities were in the school. A field trip to a new location where we could bug hunt, or to a museum where we could learn more about living things would be a further way our experience could be enhanced and we could further feel that the "classroom is everywhere." Due to current restrictions caused by the COVID-19 pandemic, this has been difficult however. It has been wonderful to see many of us explore further out of school and with family off our own initiative, for example bug hunting over the weekends and visiting wildlife centres.

Throughout the project, we have continually pushed to keep family updated on our daily and weekly activities. We would like to thank all families once again for all the support, including the donating of books and bug hunting equipment, and providing further enriching experiences at home!

-END OF BOOK-

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