

2022 全国学科•英语整合教学优质课展评活动

教学设计

教材名称	Light Up Science 2A
教学主题	Unit3 Light and Shadows (lesson 2)
授课年级	三年级
教材分析	
<p>本课例是节选自 Light Up Science 2A, Unit3 Light and Shadows Lesson(2)。本单元探索光影的关系，这一课主要是关于手影动物。制作动物影子，学生们会掌握一些新的单词和句子，“big”，“small”，“shadow”。在教材的基础上，教师新增了影子产生的三要素的知识拓展。同时，制作手影动物还可以提高学生的实验动手能力。最重要的是，英语与科学的融合，将科学知识运用于生活实践，可以培养学生的跨学科意识。本课采用 CLIL 教学法，实现了从单纯学习英语语言到科学知识探究相结合的发展。</p>	
学情分析	
<p>本节课授课对象为三年级的学生。他们对新鲜事物有强烈的好奇心，喜欢动物，已经学习了部分动物类单词（dog, duck, bear, cat, bird），因此，动物影子会激发他们的兴趣，并回顾到他们所学到的单词。而小朋友天生对实验和科学兴趣浓厚，因此通过光与影的探索，能让英语和科学碰撞出深刻的火花，但是三年级的孩子语言储备能力不</p>	

足，只能说一些简单句子，在完成实验的过程中，能理解实验的原理，但全程用英文进行小组合作探讨对他们来说还存在一定困难。

本课在设计过程中，把完成手影故事秀作为课时任务，通过一场精彩的手影秀视频来进行导入，激发兴趣，创设情境，通过找到影子、如何制造影子，如何制造大小合适的影子，完成手影故事秀这四个步骤，让学生在实验过程中，通过小组合作自主探究，在真实情景下，从学习到理解到应用实践，最终实现迁移创新，完成语言、思维、科学的融合发展。

教学目标

Language ability:

1. At the end of class, Ss will be able to talk with others by using “We need light, object and screen to make a shadow” and grasp some words such as “big”, “small”, “shadow”, “light”, “object”, “screen”.
2. At the end of class, Ss will be able to improve their ability of listening and speaking.

Learning ability:

1. At the end of class, Ss will be able to improve their manipulative ability.
2. At the end of class, Ss will be able to improve the ability to learn physics. For example, they can understand the conditions for shadow formation: light, object and screen. And the object should be between the light and screen. Also, they can understand that the size of the shadow is related to the distance between the object and the light.

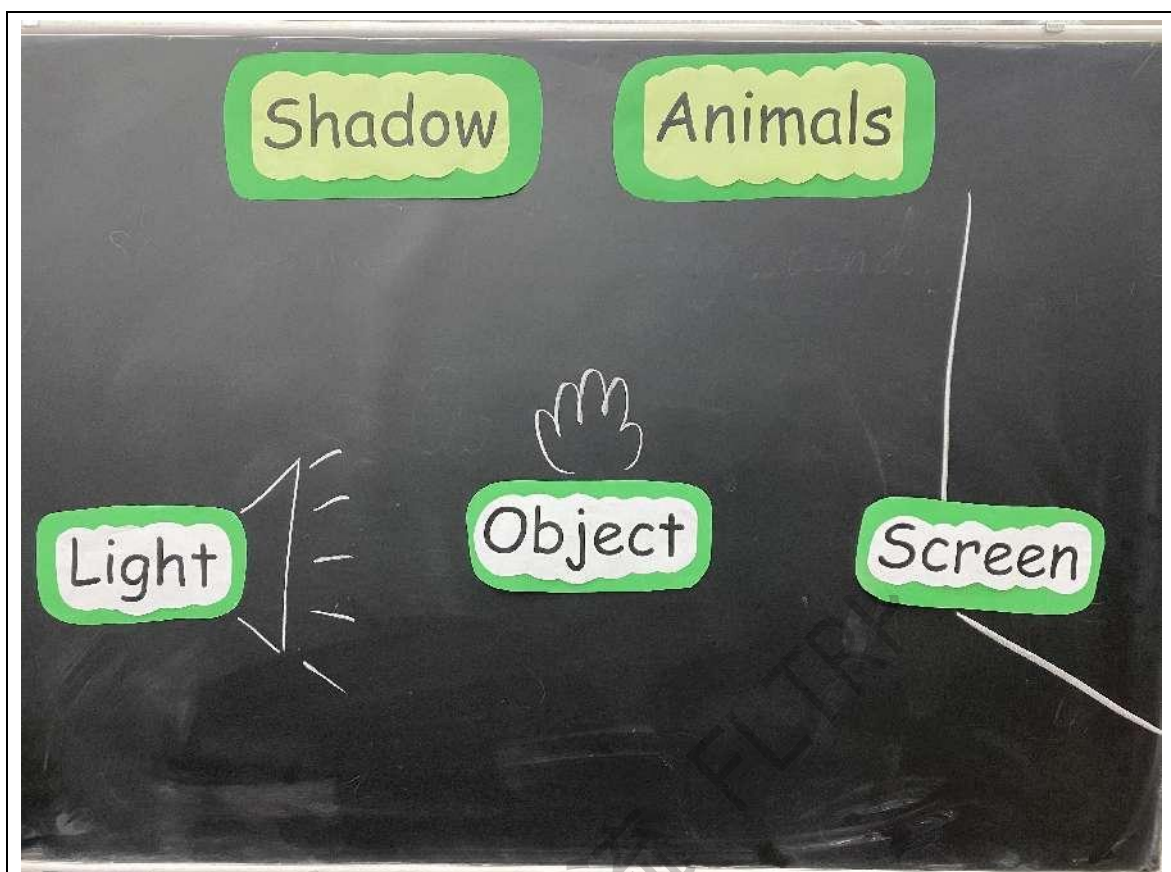
Thinking quality:

<p>1. At the end of class, students' interdisciplinary consciousness and creative awareness will be enhanced.</p> <p>Cultural awareness:</p> <p>1. At the end of class, Ss can know about the shadow art from different countries and know more about the Chinese shadow play.</p>		
<p>教学重点与难点</p>		
<p>1. Ss can use hand shadows to create stories.</p> <p>2. Through the experiments, Ss can understand that the closer the object is to the light source, the larger the shadow is, and the farther the object is from the light, the smaller the shadow is.</p> <p>3. Ss can use English to discuss the experiment with their partners.</p>		
<p>教学过程</p>		
<p>教学环节</p>	<p>教学活动</p>	<p>设计意图</p>
<p>Step1:Warm up and lead in</p>	<p>1. Greeting</p> <p>2. Free talk: Do you like animals? What kind of animals do you like best?</p> <p>3. Act like an animal.</p> <p>4. Enjoy a special animal show.</p> <p>5. Teacher shows the picture of shadow animals in the video.</p>	<p>This step is designed to stimulate students' interests and lead out the topic.</p>

	<p>T: Are they real animals?</p> <p>S: No. They are shadows.</p> <p>6.Let's make a nice shadow show, too.</p>	
Step2:Find the shadow	<p>1. Find shadows in the classroom.</p> <p>2. Find the right shadow for the animals.</p>	Through the shadow around students, they can deepen the concept of shadow again.
Step3:What do we need to make a shadow	<p>1. What do we need to make a shadow?</p> <p>(1) Students think about it and have a brainstorm</p> <p>(2) Watch a video and know the answer.</p> <p>(3) Teacher summarize the 3 elements: the light(torch), the object and the screen.</p> <p>(4) Think and tick:which objects give out light?</p> <p>(5) Experiment: Make a shadow animal in groups and play a game to check.</p> <p>3 students hold the three things to walk in circle. When the teacher says stop, they stop and see if they can make a shadow.</p>	<p>1. To understand the three elements of shadow and use the three elements to create shadow.</p> <p>2. To check whether students have mastered the order of the three elements in the shadow game.</p>

Step4: How to make the shadow big/small	<p>1. Teacher makes a big shadow</p> <p>T: Is it a proper shadow?</p> <p>S: No, it's too big.</p> <p>T: How to make it small?</p> <p>What will happen if I move the torch near/far away from the object?</p> <p>2. Experiment: Make a big/small shadow animal in groups and present.</p> <p>3. Watch a video about how to change the size of the shadow.</p> <p>4. Draw the shadows for the object.</p>	<p>1. To understand that the size of the shadow is related to the distance of the light object.</p> <p>2. Be able to change the size of the shadow through experiments.</p> <p>3. Practice the words: big and small.</p>
Step5: How to make a nice shadow show	<p>1. Enjoy a video of shadow show.</p> <p>2. Group work</p> <p>(1) Make a story</p> <p>(2) Show time</p>	<p>To use hand shadow to create stories and perform, so as to improve the comprehensive pragmatic ability.</p>
Step6: Let's wrap it up	<p>1. Summarize what we've learned today</p> <p>2. Enjoy some shadow art</p> <p>3. Self evaluation</p>	<p>To summarize this class</p>
Step6: Homework	<p>1. Make an animal shadow show with your parents.</p> <p>2. Learn about the Chinese shadow play.</p>	<p>To consolidate what my students have learnt today.</p>

	3. Find more shadow art in your life.	
教学评价		
<p>1. 教师评价</p> <p>(1) 教师自制手影卡片，在整个课堂教学中，奖励给学生，不仅可以增加学生的积极性，也能在手影故事创编中帮助学生进行动物手影手势学习，将教-学-评融为一体。</p> <p>(2) 在整个教学过程中，教师以口头、肢体语言等反馈方式，评价学生对课堂任务的兴趣、投入程度、对任务的适应和完成程度、在解决问题的过程中的能力和情感发展水平等，给予学生有针对性的鼓励、指导和建议。</p> <p>2. 学生互评</p> <p>充分发挥发挥学生主体作用，学生利用平板投票功能，进行数据收集，选出最喜欢的表演小组，并在教师的追问下给予理由，在相互评价中取长补短，总结经验，规划学习。</p> <p>3. 学生自评</p> <p>根据教师给予的自评标准，学生从课堂参与度、小组合作能力、倾听习惯、学习效果等不同维度对自己进行评分，每个维度 1-5 分，根据自己最终得分，看自己属于 A/B/C 三等中哪一等，再利用平板的数据收集功能，教师能及时掌握每个学生的学习效果。学生也在自我评价的过程中主动反思，促进自我监督性学习。</p>		
板书设计		



教学反思

本课以任务链贯穿全课，四个步骤在内容方面聚焦动物词汇知识，在语言层面聚焦影子产生的科学原理，在思维认知层面培养学生的观察力、关注学生的抽象思维，学生使用英语进行猜测交流、实验验证、结果分析汇报，既有科学课的思维型教学内涵，也语言的即时运用。让思维发展和语言能力真正同步，从而将语言真正在生活实践中应用起来。

本节课在科学方面的目标达成度高。孩子们不仅理解了影子产生三要素、影子大小变化与光源距离有关这几个科学概念，同时他们也运用了提问—猜测—验证—拓展的科学探究学习法，能根据实验发现，实事求是的分析。孩子们在实验过程中乐于合作、积极参与，从科学角度上来说不失为一堂完整且充满思维碰撞的思维探究型科学课。

本课在教授方式上充分利用智慧教育手段，借助鸿合智能教学系统通过平板电脑这一电子载体让课堂中全体学生可以及时反馈信息给教师，教师可及时进行数据收集，更直观的收集学生的作答情况，并及时给予评价和有针对性的指导；学生利用手中的平板可以减少相互间的干扰，提高测评效率，也增强了学生对测评兴趣，提高了对测评的关注度。

但是本课的板书设计只涉及到影子产生的三要素，对光源和物品位置与影子大小之间的关系体现不够。应该对三要素的摆放距离进行调整：准备两套三要素单词卡，当光源和物品摆放距离近时，在屏幕上贴一个大的影子，当光源和物品摆放距离远时，在屏幕上贴一个小的影子。这样可以更直观的展示出影子大小的变化。