

## Creating an Ant Colony

### 打造蟻巢

#### Stages of an Ants Life

Ants are truly remarkable creatures, displaying an unparalleled work ethic that few can rival. Despite their small size and relatively short lifespan, ants exhibit relentless dedication to the survival of their colonies. As part of our project, each class had the valuable opportunity to delve into the fascinating life cycle of ants. By studying their lifecycle, students gained a deeper understanding of the challenges ants face in the outside world, given their relatively brief lifespan. This exploration aimed to foster an appreciation for the resilience and adaptability of these remarkable insects.

#### Living with a purpose

During the planning phase, students focused on how they would establish an ant colony and what type of ants they would find. They studied different ant nest forms from different parts of the world and predicted which of the more than 16,000 species they would find when they went outside. Once we agreed on which ant species it might be, we set about planning the ant farm by gathering materials and building the perfect nest.

#### Establishing a Colony

Ants can take up to three days to build a suitable network of underground tunnels up to 2 meters long. During this time, they frantically created areas for food, eggs, larvae, and the queen. During the construction phase, we collected the ants and placed them in the environment created for them. While observing the ants, we took time to learn about the different tasks each ant has to perform. It did not take long for the ants to get to work in their new home. The final task was to come up with ways to improve the nest. We all agreed that it needed to be much larger to accommodate the colony as it grows.

#### 生命週期

若說到職業道德，螞蟻絕對是代表性生物，能與之匹敵的生物少之又少。以螞蟻的體型及壽命而言，他們可說是在群體生活傾注所有。透過研究螞蟻的生命週期，學生對螞蟻短暫的一生在外在世界所面臨的挑戰有了更深入的了解。而這項研究也培養他們對這些非凡昆蟲恢復力和適應力有更多的認識。

#### 為意義而生

在計畫過程中，學生專注研究並討論要找哪種螞蟻並打造蟻群。他們研究了世界上各樣不同的蟻巢，並預設在 16,000 種螞蟻之中，他們有可能在戶外找到哪些種類。一旦選定了螞蟻種類後，學生們便著手規劃螞蟻農場，收集材料並開始打造蟻巢。

#### 建造蟻群

螞蟻只需要三天就可以建造出一條長達 2 公尺的地下隧道。在建造的時間內，螞蟻們竭盡所能建造儲放食物、蟻卵、幼蟲以及蟻后的房間。在建造過程中，學生到戶外抓螞蟻，並將螞蟻放到為牠們打造的環境中。在觀察螞蟻時，學生們學習並討論牠們在不同工作中扮演的角色。螞蟻們到了新家後便開始建造蟻巢。學生的最後一個任務是思考如何改善蟻巢，他們都同意需要更大的蟻巢才足以容納整個完整的蟻群。

1

ASK + IMAGINE  
提問 + 創思

2

We explored the life cycle of ants in preparation for building a colony.

我們探索螞蟻生命週期，為打造蟻群做準備。



3

PLAN  
計畫

4

We studied ants in their natural environment and applying what we learned about their life cycle.

我們研究螞蟻在大自然中的樣子，並將所學的螞蟻生命週期的知識應用到專題中。



4

CREATE  
創造

5

We gathered everything we need to create a suitable habitat for the ants.

我們結合所學的一切，為螞蟻打造合適的棲息地。



5

IMPROVE  
改進

6

Once we completed the colony, we looked at how we could further improve it to ensure its success.

完成蟻巢後，我們仔細觀察並討論能如何改善蟻巢。

