

## Ant Colony 蟻群

### Life Cycle

There are very few if any living creatures that can compete with the work ethics of ants. Taking into consideration their size and life-span, ants are relentless in their pursuit to ensure the survival of the colony. During the first week of the project, each class had an opportunity to investigate the life cycle of an ant. The purpose of this activity was to ensure students formed an understanding of the short life-span of an ant as well as all the dangers they face from the outside world.

### Living with a purpose

During the planning phase, the students focused on how they would establish a colony for ants as well as what kind of ants they were going to find. They studied several different ant nest designs from various parts of the world and predicted which one of the more than 16,000 species they might find when walking outside. Once we all agreed on what the local specie of ant could be, we set about planning the ant farm by gathering materials and creating the perfect nest.

### Establishing a Colony

It could take ants as little as three days to build a suitable network of underground tunnels up to 2m long. During this time, they frantically engineered areas for food, eggs, larva and the queen. Throughout the create stage, we gathered ants and placed them into the environment created for them. During our observations of the ants, we took time to learn about the different tasks that each ant has to perform. It didn't take the ants long to get to work on their new home. The final task was to think about ways to improve the nest. We all agreed it needed to be much bigger to host a whole colony

### 生命週期

很少有生物能與螞蟻的努力敬業精神相比。考慮到牠們的體型和壽命，螞蟻不遺餘力地確保蟻群的生存。進入此專題的第一週，每個班級開始進行螞蟻生命週期的研究及觀察，如此一來學生們都能瞭解螞蟻的短暫壽命以及牠們所面臨來自外部世界的所有危險。

### 有目的地生活

在計畫階段，學生們專注於他們如何建立蟻群以及找到什麼樣的螞蟻。學生們研究了來自世界各地的幾種不同的蟻巢設計，並預測了他們可能會在戶外從 16,000 多種螞蟻中發現哪一種。一旦大家都對當地螞蟻的種類達成共識，便透過搜集材料和創建完美的巢穴，開始規劃螞蟻農場。

### 建立蟻群

螞蟻可能只需要短短三天的時間來建造一個最長可達 2 米的地下隧道。在此期間，牠們不懈地為食物、卵、幼蟲和蟻后建立環境。在專題的創造階段，我們搜集螞蟻並將牠們放入為牠們創建的環境中。在觀察螞蟻的過程中，我們花時間了解每隻螞蟻必須執行的不同任務。螞蟻很快就能開始在牠們的新家工作。最後的任務則是想辦法改進巢穴。我們都同意它需要更大的空間來容納整個蟻群。

### 1 ASK + IMAGINE 提問 + 創思

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

探索螞蟻的生命週期，為建立蟻群做準備。



### 3 PLAN 計畫

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

運用對其生命週期的瞭解，我們在自然環境中研究螞蟻。



### 4 CREATE 創造

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

收集我們需要的一切材料，為螞蟻創造一個合適的棲息地。

### 5 IMPROVE 改進

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

一旦我們建立了蟻群，就會研究如何進一步改造它，使其更成功。

