









*Remind Students of the reflection prompt they concluded with last week, then give them a few minutes to finish their reflections before sharing out

In the story Hayy comes to realize that life is more than just the physical, think about what that means to you and draw something that represents the more than physical.







ACTIVITY INTRODUCTION

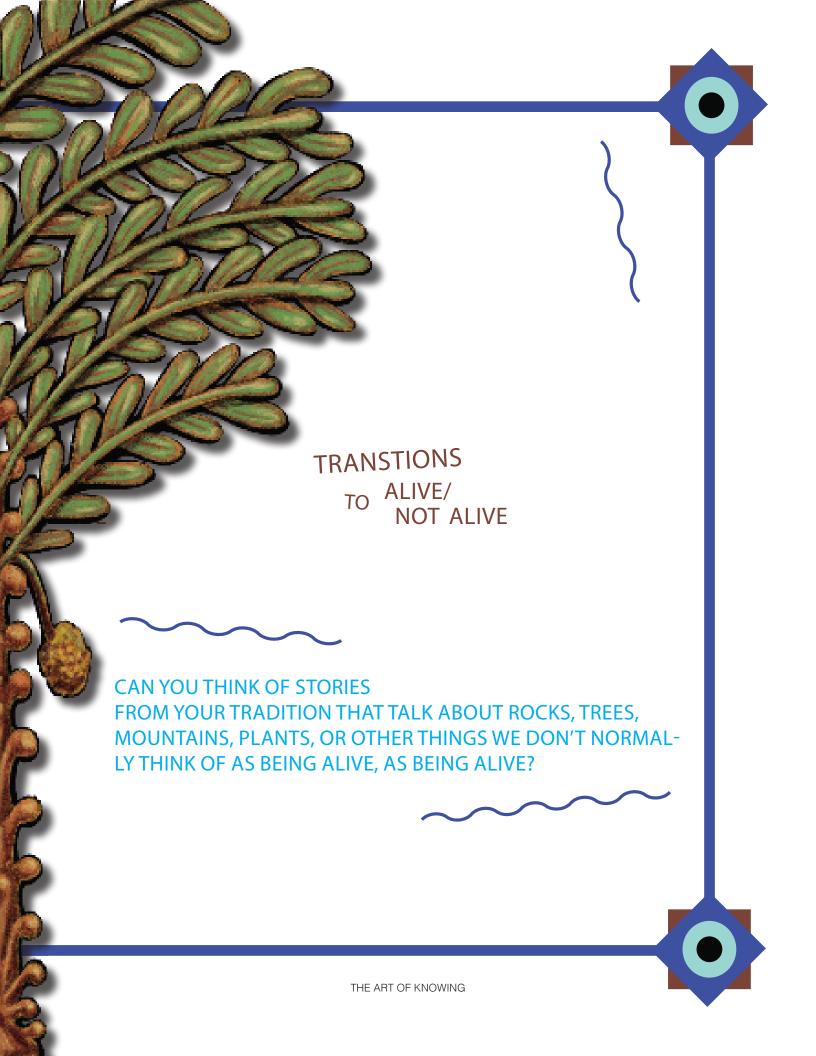
Revisit the first part of the story of Hayy from last class before telling part two

SECOND READING OF HAYY

ASK DURING AND AFTER READING:

- What conclusion does Hayy have when studying animals and creation around him?
- What does Hayy learn from animals, stars, etc?
- How did Hayy think of the universe as one being?
- Why does Hayy make sure to plant the seed after eating a fruit? Why does he decide not to eat meat so often?
- How does Hayy's understanding shape his relationship with his environment and the way he used his knowledge, tools, and power? [discuss the difference between: mastering/utilizing vs. being responsible for the environment]







ALIVE/ NOT ALIVE

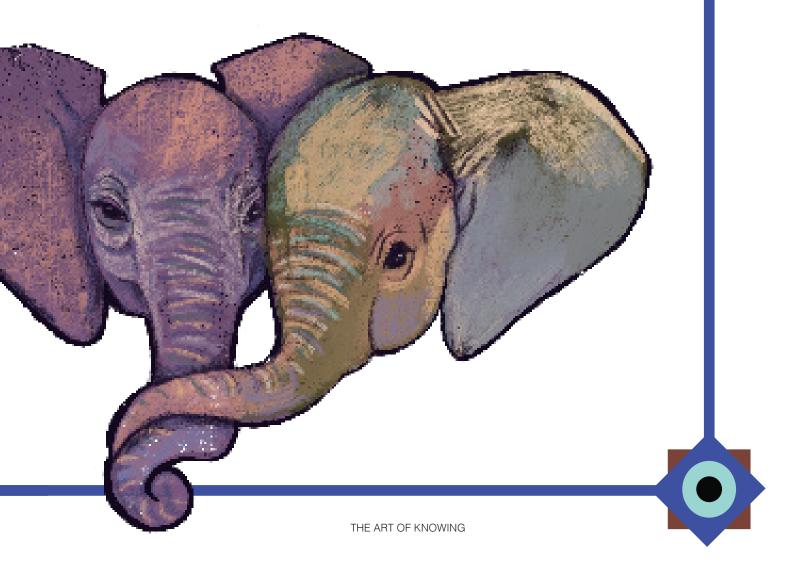
This activity relates to the time in Hayy's life where he begins exploring and categorizing beings around him. Just as Hayy's ethics and understanding of the relations of all things emerged, we can engage students in troubling and reflecting on their own understanding of categories, relationships, and responsibility.

- Introduce the activity: We will be breaking into groups of 3-4 and looking at some images. For each of them we want you to discuss if you think it is alive or not alive or something else. While you are in groups make sure to take note of what makes these things alive or not alive.
- Before beginning, ask students to share an example of something that is alive and something that is not alive and what makes those things alive or not alive.
- Break into groups and pass out the images with various beings and things.
- After groups have discussed and made notes, the class comes back to share out: Let students from each group share the images on their cards. Have them share if their group decided their being or thing is alive, not alive, or if they are unsure AND have them explain why.
- Next, ask the rest of the class if they agree with this or not and why.
- Once all of the cards have been sorted, have students discuss the following:
 - What makes something alive or not alive?
 - -What responsibilities does it put on us if something is alive?





*A Note on encouraging deeper thinking during the activity: Allow students the opportunity to discuss and decide on their own. In cases where student discussions do not dig deep, probe further. For Example: if students are discussing a card that says the word mountain, and they decide it is not alive because it is just made of rock, you can probe for further thinking by referencing what the Quran says about Mountains - (Mountains praising God with Prophet David, rejecting responsibility of free choice).







THE STORY OF HAYY IBN YAQZAN

[ALIVE, SON OF AWAKE]

INTRODUCTION

Hayy ibn Yaqaān" by Abu Bakr Ibn Tufayl, a 12th-century Andalusian scholar, is an Arabic tale about a boy who grows up in isolation on a remote island and learns about the world through nature as he grows to develop a sense of responsibility and duty toward the natural world. The story, grounded in Islamic perspectives of nature as a reflection of divine beauty, presents two origins for Hayy: a spontaneous biological generation and a royal infant castaway for his own protection. Ibn Tufayl, a master of philosophy and medicine, draws from the wild child motif found in stories like Romulus and Remus, and as mentioned in the earlier talk, his story grows out of earlier narratives of Hayy ibn Yaqzan.





So onto the story...

Many people ask how Hayy ended up on the remote, equatorial island, that few can find. Some say that Hayy emerged spontaneously on the island of Waqwaq, where the unique climate and soil conditions are said to allow people to form naturally from the earth's mud, from its soil. Others say he was a child of a princess whose brother, the king, was determined to kill him so that he would not inherit his throne. To save his life, Hayy's mother cast him to the sea and the baby ended up on the shore of Waqwaq Island. Hayy spends the first 50 years of his life on Waqwaq Island, without any human contact.

No matter Hayy's origin, Hayy was take care of by an "adoptive" Gazelle mother and lived among her herd. He learned what and how to eat, how to communicate from his mother gazelle, from the herd, and from living among other animals. He noticed that some animals had feathers, fur, or wool to keep them warm, while he shivered in the cold, and his skin burned in the heat. Hayy learned he could use leaves and animal skins to protect his body. Being in the natural world, animals attack each other and often have to defend themselves. Hayy saw that that animals (and even many plants) had natural defenses like horns, claws, and thorns. Hayy had his hands and legs, but utilizing what he found on Waqwaq, he began crafting tools to protect himself.

By the time he was seven years old, he began to find his way among his flock of gazelle on Waqwaq. But, Hayy's gazelle mother was growing older and weaker. The seven-year-old Hayy took care of her, learning about love and responsibility. By watching and imitating the animals, Hayy learned to communicate, protect himself, and care for others. He cared for his mother gazelle as she grew weaker by bringing her food and water.





One day his mother was no longer moving. He tried to wake her, but she would not wake up. Hayy became increasingly worried about her and began examining her body. Nothing he could do would wake her or bring her back to life. Hayy looked for ways to fix her, to find what was wrong, but he found that nothing he tried would bring her back. Realizing his limitations, he came to understand that something important that he couldn't see or touch, had left his mother's body. He accepted her death and he buried her. Losing his Gazelle mother made Hayy curious about the essence of life in all living animals.

In the coming years, Hayy's fascination with life and death continued and he would often examine animals to learn about their bodies—he pondered how they moved, what gave them strength, and life. He learned to engage his natural environment, using animals for transportation and food and he learned how to create shelter for warmth, safety, and storage. He discovered how to make and use fire for light and cooking. Hayy started to understand the difference between animate and inanimate life. He began to categorize everything he saw in the world: animals, plants, and other things. He realized they were all made of physical matter. Reflecting back on his Gazelle mother's death, he realized life was more than just the physical.

By the time Hayy was 28, he realized that everything around him, the earth, plants, animals, even the stars and skies were constantly changing, growing, and decaying - nothing stayed the same forever. He continued to spend his days carefully observing the world and beings around him. As he reflected on this, he realized that everything that exists must have an origin. He thought everything must come from somewhere or some place—that there must be a universal origin for everything he has seen on this planet and in the heavens.

So, Hayy began to look upward, and to think deeply about the sun, the moon, and the stars, especially about how they moved. He also began to wonder about his place in the world and how he should live his life as a part of the ecosystem of the planet. As he considered these things, he came to the conclusion that there were three types of actions he should take.





First, there were bodily actions that made him like animals and other earthly beings because, like them, he had a body. Second, there were actions that would make him like the stars, because he had a spirit or soul. Finally, there were actions that would bring him closer to the Divine because he wanted, deeply, to understand and connect with his Creator.

From then on, Hayy decided to live his life based on these three principles. He would care for his body like the animals, nurture his spirit like the stars, and most importantly, strive to know and resemble the Divine. For Hayy, the greatest happiness came from learning about the Divine and doing everything he could to live in a way that reflected this. Hayy transitioned from being a possessor and master of the environment to having a relationship of responsibility for the environment which he was a part of.

If he noticed a plant cut off from the sun, he would remove what was screening it. If he saw one plant tangled in another that might harm it, he would separate the two carefully so that neither would be damaged. If he saw a plant dying for lack of water, he would water it. When he saw an animal attacked by a predator, caught in a tangle, stuck by a thorn, or thirsty, Hayy did all he could to help the living being.

But, for Hayy's life to endure, he needed sustenance. Yet, as his spiritual insight deepened, his relationship with eating transformed. With a heart attuned to the natural world as a reflection of the unity of the universe, the simple act of feeding himself became a moral question. To consume another living being, he realized, would interrupt its path toward fulfillment, denying it the chance to achieve its destined purpose. Hayy felt this would be a violation of Divine harmony. So, he resolved to take only what was necessary to sustain his body.

His every choice was an act of reverence, a way to live in harmony, to dance with the natural world and tread lightly upon the earth.



For additional lesson plans and more information please visit www.artofknowingcurriculum.com

WHAT IS THE ART OF KNOWING?

The Art of Knowing Curriculum is designed as a supplement to elementary science education. It intentionally places Muslim Ways of Knowing at the center of science learning. It is designed to engage students in exploring "how we come to know" by asking questions about when, where, and why we use various ways of knowing through stories, art, and discussion. We offer suggestions for how to incorporate the curriculum as a once-weekly class, but the curriculum and other resources can be taken up in a variety of ways that suit the needs of your community.

WHAT IS THE PURPOSE?

We developed a curriculum that bridges science pedagogy and Muslim Ways of Knowing.

Through this research and teaching project, we explore the possibilities of teaching science through a non-western perspective and creating a space for young people to imagine possible futures through thinking not only about what is taught, but also about the teaching practices, activities, and artifacts in the classroom. Through engaging with art and storywork, we produced a curriculum that draws from classical Muslim systems of knowledge. We engage pre-colonial literature from the Muslim world to explore how young people come to know and how they relate to, and act on, what they know.

Our larger research project aims to open the space for interdisciplinary scholarship that focuses on inclusive STEAM education; offer non-Eurocentric approaches to science education; and, appreciate multiple, and culturally-situated, ways of understanding science.

THIS WORK WAS FUNDED BY

The Social Science Research Council (Grant Number: 48720-1-ECNS22004N) The Spencer Foundation (Grant number: 202300086)

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The Art of Knowing Curriculum was developed in conversation with Ahmed Ghassab, and Mary Catherine Flynn while teaching at the MEDINA MONTESSORI SCHOOL in Falls Church, Virginia

ART DIRECTION & ILLUSTRATION Susu Attar

SUGGESTED CITATION

Art of Knowing Collaborative (2024). Art of Knowing Curriculum: Lesson 1, Washington, DC & Santa Cruz, CA: Art of Knowing.