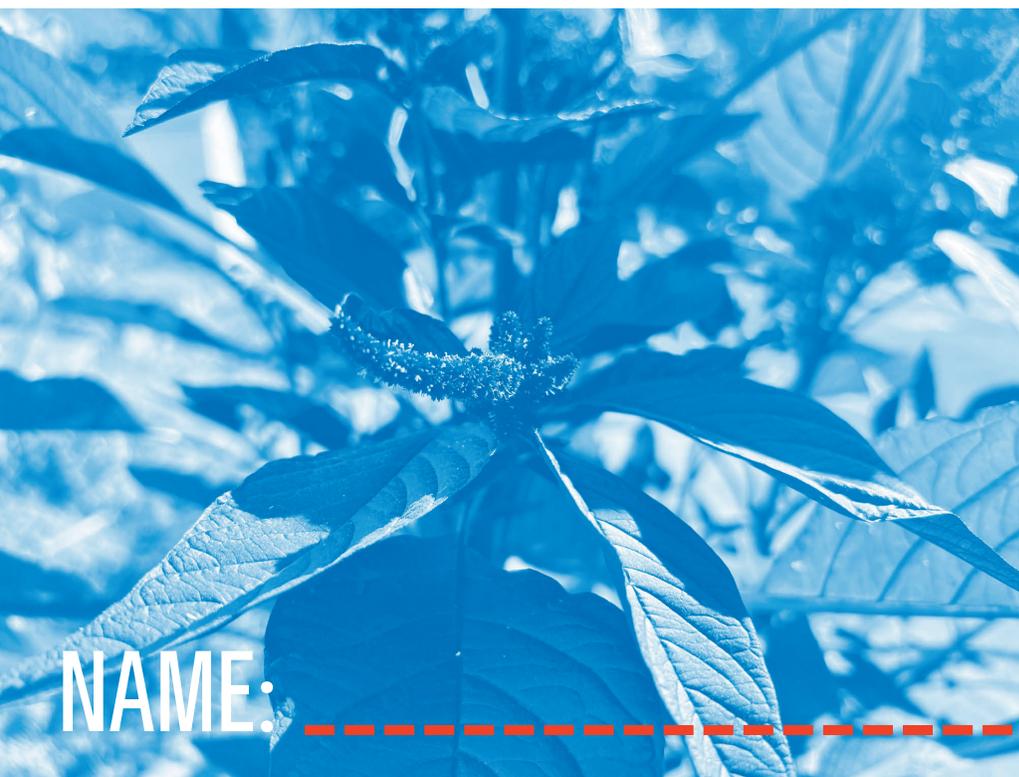
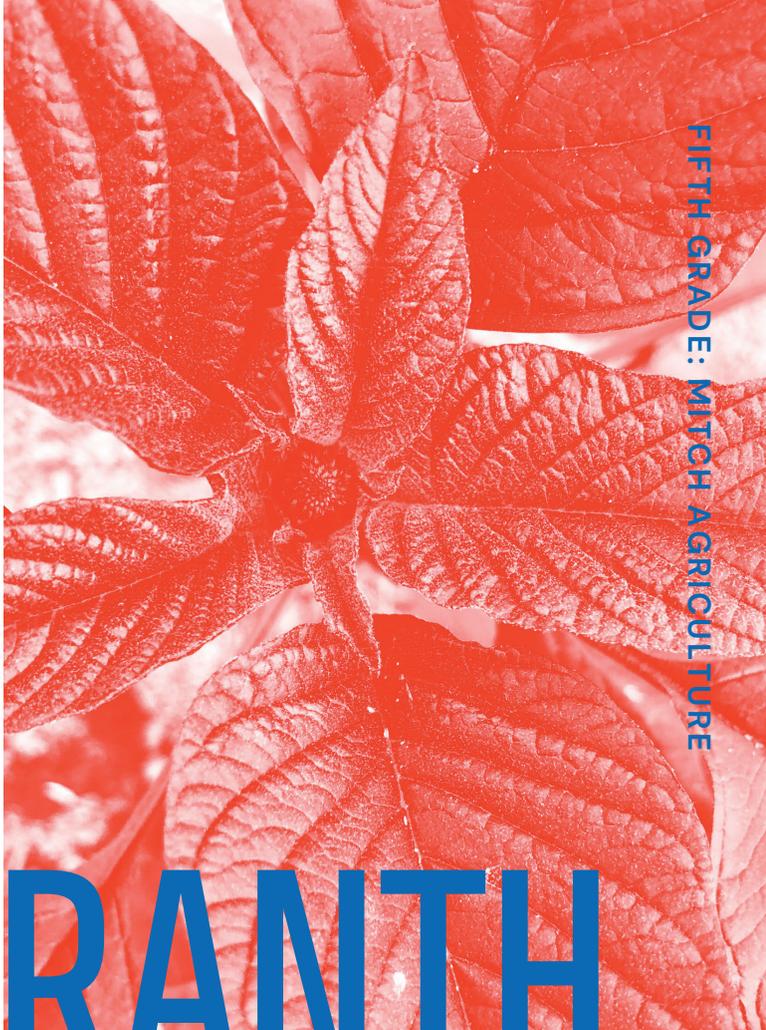


HOPI
RED
DYE

AMARANTH

FIFTH GRADE: MITCH AGRICULTURE



NAME: _____

I AM A SEED SAVER!



This year, your class will be in charge of harvesting, saving, growing, and returning the Hopi Red Dye Amaranth Seed from our school garden to the Hopi community.

Hopi Red Dye Amaranth is a special seed. As we work through this book, we will learn from Hopi people about the importance of their seeds to their culture and food traditions.

Do you have special traditions or foods that are important to your family?

1



SUMMER HARVEST

It is Summer! It is time to harvest seeds from the Hopi Red Dye Amaranth planted in our garden last Spring.

These amaranth seeds make an almost magenta-colored dye and are special to the Hopi.

Today we will harvest these seeds so that we may return them to the Hopi. This is often called **seed rematriation** – returning seeds to their original communities on Mother Earth.

THE HOPI

As you may remember from 3rd grade, the Hopi have lived in Northern Arizona since time immemorial, or before human memory. In Hopi language, their land is called *Tuuwanasave*, which means, "the center of the universe".

In their origin story, Ma'saw told the Hopi to take care of the earth. One of the ways that the Hopi care for the earth is through agriculture. Hopi life revolves around agriculture, especially corn. In the Hopi language, the word for Agriculture is *Natwani*.

In the Hopi origin story, the Hopi recall when the caretaker of the earth, Maasaw, "told us this world is a gift to us and we must care for this place."

One of the ways the Hopi care for the earth is by growing and tending for plants like the Hopi Red Dye Amaranth. They use it to dye a special bread they make called Piki Bread. Today, we are going to harvest the seed from the Hopi Red Dye Amaranth. In the spring, we will send this seed back to the Hopi Nation. This is what some people call **Seed Rematriation, or returning the seed to its original place on Mother Earth.**



AMARANTH LEAF PRESSING



The leaves of Hopi Red Dye Amaranth contain a dye or **pigment** that is a bright magenta color.

Try pressing the underside of an amaranth leaf to this paper. Cover it up with another piece of paper. Then rub something smooth and hard on over the second piece of paper to press the dye from the leaf into this page of your zine.

Try making a pattern.



FALL SAVE

It is Fall! It is time to save the Hopi Red Dye Amaranth seeds. We do this through a process called "winnow & thresh". In this process, we use our breath to separate the seeds from the plant.

These seeds are special to the Hopi and their food traditions. The Hopi have been treated unfairly in the past, which makes it important for us to carefully save these seeds and return or **rematriate** them back to the Hopi.



In 1882, without asking the Hopi, the United States government took millions of acres of Hopi land. Today, the Hopi live on a much smaller piece of land.

This land is much hotter than their original lands. This weather can make it difficult to grow their traditional foods and save their special seeds.

In 1887, the US government also opened schools on Hopi lands. These schools tried to **assimilate**, or train Hopi children to forget their traditional culture.

But the Hopi took back their schools and continue to practice their agricultural traditions.

Hopi weaver Iva Honestewa makes Piki Bread.

Today, the Hopi still grow the seeds that continue their agricultural traditions, like Hopi Red Dye Amaranth.

To grow their foods in such a hot climate, they practice **dry farming**. They only use rain to water their plants, and plant seeds deep in the ground and far apart. The Hopi have planted this way for 2,000 years.

They also pass on their traditions to young people, and continue to make many of their important foods, like **Piki Bread**, which is made from blue corn.

Hopi Red Dye Amaranth is sometimes used to make Piki Bread too.

FALL: HOPI RED DYE AMARANTH



HOPI PIKI BREAD

Listen to Hopi chef and artist Iva Honestewa describe the process of making piki bread.

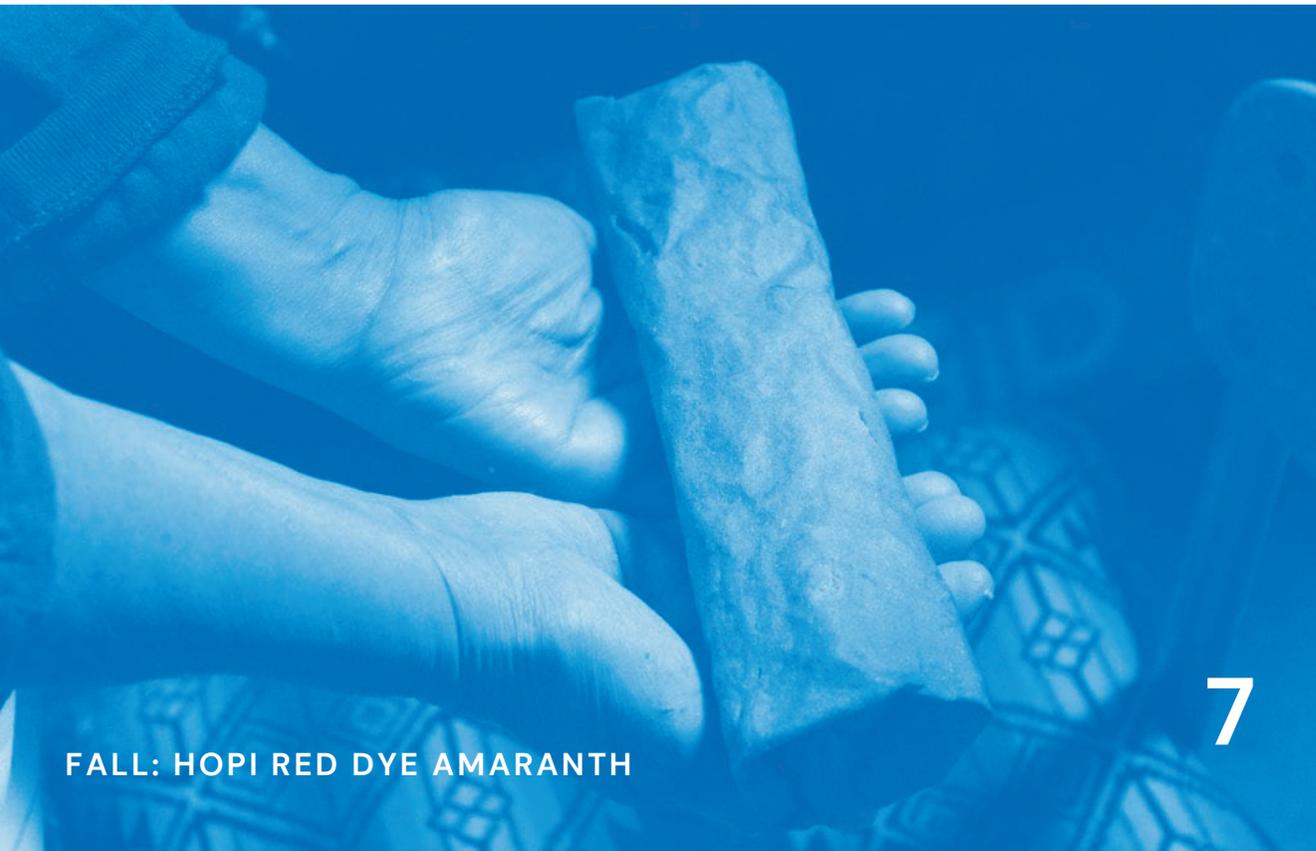
Piki bread is an important part of Hopi culture because it is made from Hopi Blue Corn and used in many different important cultural events like weddings and baby naming. Stewart Koyiyumptewa, who manages the Hopi Culture Preservation Office in Arizona says, "Corn is the first thing they feed you when you're born, and cornmeal sends you off to the spiritual world when you pass on."

The Hopi say that "For the Hopi, Piki has no beginning and no end."

Why do you think this is a saying in Hopi culture? Remember what we have learned about the history of the Hopi and their traditions?

What are some important foods in your family?

What are some of your favorite food memories?



THE STEPS TO MAKE PIKI BREAD

Watch Iva Honestewa make Piki Bread.
Describe the steps that she takes to make it.

1.

2.

3.

4.

5.



WINTER RETURN

Now that we have learned about the importance of the Hopi Amaranth to the Hopi, we are going to make sure their seeds are returned to them.

Many Indigenous people across the world are saving their seeds like the Hopi. This is called **Seed Rematriation**. Now you are a part of this important movement.

MESSAGE FROM MITCH

We are returning the Hopi Red Dye Amaranth seeds grown in our garden back to the Hopi Nation.

We have learned about the importance of Hopi seeds to continue their traditions. Why then, is it important to return these seeds to their care?

Write a message to send with these seeds to the Hopi community.



SUMMER PLANT

Today, we will plant the Hopi Red Dye Amaranth in our garden.

Despite the challenges that the Hopi have experienced, like being pushed onto a smaller and hotter piece of land, they have stayed strong. One way is through saving seeds.

The plants we grow will create more amaranth seeds and future third graders will return them to the Hopi.

HOPI RED DYE AMARANTH

Draw your amaranth as a seed and after it sprouts. Fill the space in the box with your drawings.



SEED

A large, empty rectangular box with a blue border, intended for drawing the seed of the amaranth plant.

SPROUT

A large, empty rectangular box with a blue border, intended for drawing the sprout of the amaranth plant.

THE LIFE CYCLE OF AMARANTH

When you plant an amaranth seed, you start its life all over again!

If an amaranth seed is not planted in the soil, eventually it will die.

You are important to the life cycle of the Hopi Red Dye Amaranth!

Describe the steps of the amaranth life cycle, starting with planting the seed and ending with winnowing and threshing (separating the seed from the plant).

1.

2.

3.

4.

5.

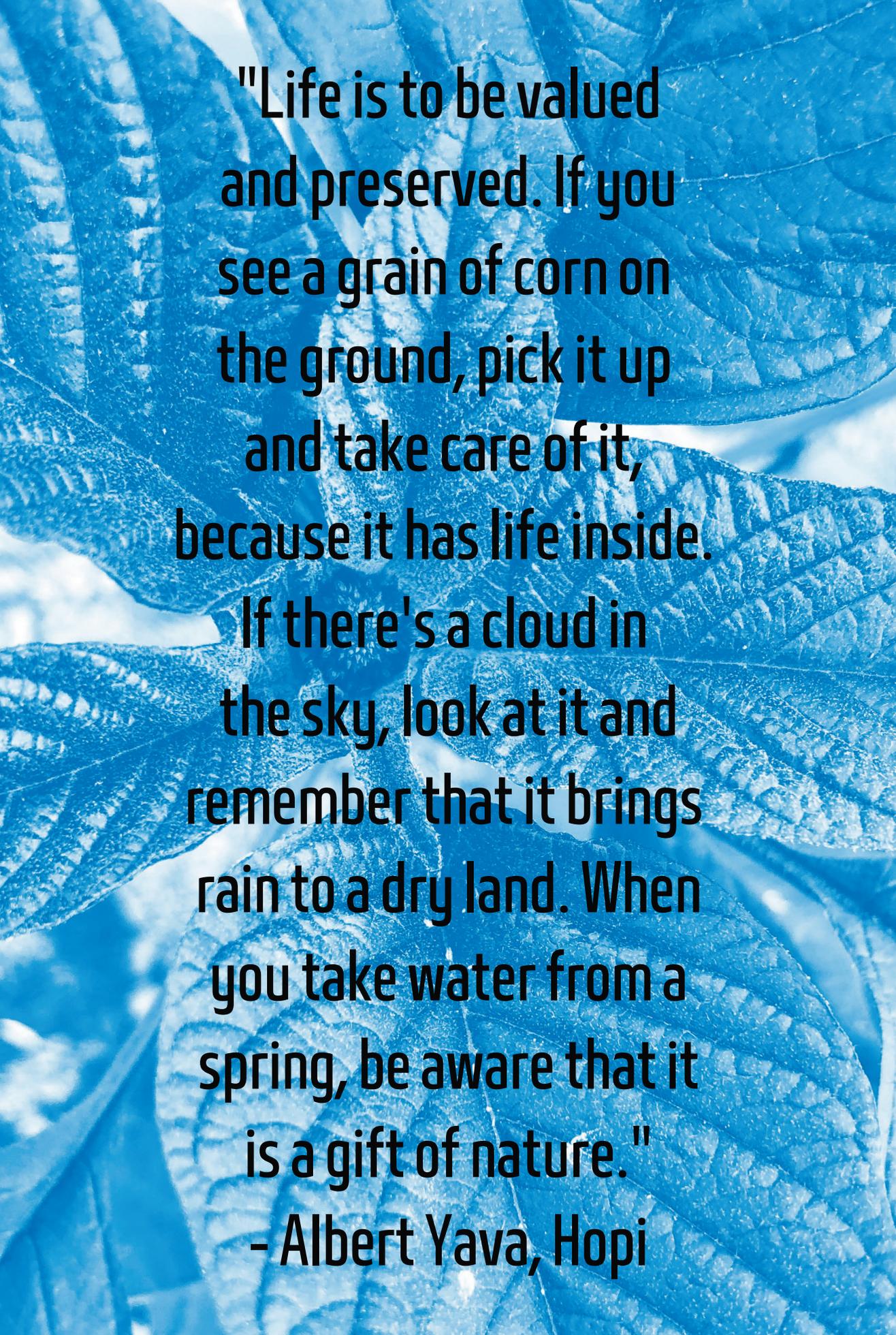
WRITE A NOTE TO A FIFTH GRADER

Next year, you will be in middle school!

There will be new fifth graders that will harvest and return more of the Hopi Red Dye Amaranth seeds to the Hopi community.

Saving seeds is a way for communities to stay strong. This strength is found in the keeping of their culture and traditions. The Hopi culture cares for the earth through their agricultural traditions and honor its gifts through their food traditions, like making Piki Bread.

Below, write the future fifth graders a note about how and why we return these seeds to the Hopi.



**"Life is to be valued
and preserved. If you
see a grain of corn on
the ground, pick it up
and take care of it,
because it has life inside.**

**If there's a cloud in
the sky, look at it and
remember that it brings
rain to a dry land. When
you take water from a
spring, be aware that it
is a gift of nature."**

- Albert Yava, Hopi