

Teacher's Notes: Havasupai People Farming in the Grand Canyon

Science Standard:

Learning Objectives:

The students will be able explain where the Havasupai people lived. The students will be able to explain when the Havasupai people went to the Grand Canyon. The students will be able to identify/explain what the Havasupai people planted.

Activities

- 1. Bring in an assortment of melons. Have students look, feel and smell them. Have students sample the melons and discuss which ones are their favorites. Make a melon salad.
- 2. Have students pick pomegranates out of its shell.
- 3. Have students shuck corn.
- 4. Students do image searches using the technology printable. Have the students save pictures of their favorite ones. Those are then inserted onto a Word document or a PowerPoint. Students type a sentence or word describing each picture.

General Tips: The goal is to build background knowledge while leading an engaging discussion on any and all information that can be talked about on a given page. The items that you choose to bring up or focus on should be modified for the students you are working with. For example, if you have a student who can point to something in the picture, answer yes/no questions be sure to incorporate a lot more of that as you go through the book. On the same token, be sure to ask a lot of comprehension questions and critical thinking questions at the level appropriate for students. There is something for everyone.

Page 1: The Havasupai are an American Indian tribe. They live in the Grand Canyon. The Grand Canyon is a very, very big canyon. A canyon is a very deep valley. The Grand Canyon is in the state of Arizona. The Havasupai people have lived there a very long time. Summer is one of the four seasons. Summer is the months of June, July and August. Have the students view the following video of Havasupai Falls. Pause periodically to point and discuss. <u>https://www.youtube.com/watch?v=OrYMoN4vpt4</u>

Point: Indian children picture, Grand Canyon picture, Indian icon WH Questions: Who is an American Indian tribe? Where do the Havasupai people live? What state is the Grand Canyon in? Yes/No: Do the Havasupai people live in a stadium? Do the Havasupai people live in a canyon? Do the Havasupai people live in the Grand Canyon? Opinions/Experiences: What do you know about the Grand Canyon? Peer to Peer Interaction: After you read Page 1, ask students, "Who lives in the Grand Canyon?" The answer is the main idea card "Havasupai people." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.

Page 2: A seed will grow a new plant. Some foods grow from plants. A seed is buried in dirt. The seed will start to grow. It will start to grow food. A lot of seeds can be planted to grow a lot of different food. **Point:** planting seeds picture, planting seeds icon **WH Questions:** What grows a new plant? Where is the seed buried in? **Yes/No:** Does food grow from a food machine? Does food grow from seeds? Did the Havasupai people plant seeds? **Opinion/Experiences:** Have you planted a seed? Where did you plant the seed? Did it grow into a new plant? What kind of plant did it grow? **Peer to Peer Interaction:** After you read Page 2, ask students, "What did the Havasupai people do to grow food?" The answer is the main idea card "planted seeds." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.

Page 3: Corn is a type of food. It is a vegetable. It is usually yellow or white. Corn grows on a tall plant. Corn grows in large leaves called husks. Each corn that grows is called an ear or corn on the cob. Each ear of corn has a lot of kernels. The kernel is the sweet yellow or white part. People eat the small kernels. The kernels make a lot of different foods. Have students view the time lapse video of corn growing. <u>https://www.youtube.com/watch?v=ex0iCu1ZJw4</u>

Point: corn growing picture, corn in husks picture, corn icon **WH Questions:** What color is corn? What is each corn called? What part of the ear do people eat? **Yes/No:** Did the Havasupai people burn corn? Did the Havasupai people grow corn? **Opinion/Experiences:** Corn can be used in cooking recipes. Corn can be popped. Corn can be grilled. Corn can be ground up to make breads. What is your favorite way to eat corn? **Peer to Peer Interaction:** After you read Page 3, ask students, "What is a sweet yellow vegetable?" The answer is the main idea card "corn." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.

Page 4: Beans are a type of food. Beans grow on plants. Beans grow inside pods. A bean is a seed. Beans come in different colors. They can be cooked many different ways. Some popular bean dishes are baked beans, black beans, refried beans, and bean soup. Beans can be added to a salad. Beans can be cooked with pasta. Beans can be eaten all by themselves. Edamame is a bean that is eaten right out of the pod. It is a very healthy snack. Have students view the following time lapse video of a green bean growing. Pause periodically to point and discuss. <u>https://www.youtube.com/watch?v=BG6RtcDI7ll</u>

Point: beans growing picture, group of different colored beans picture, beans icon **WH Questions:** What grows on plants? What grows in a plant pod? What did the Havasupai people grow? **Yes/No:** Do beans grow in ears? Do beans grow in pods? **Opinion/Experiences:** What is your favorite way to eat beans? **Peer to Peer Interaction:** After you read Page 4, ask students, "What grows in a pod?" The answer is the main idea card "beans." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.

Page 5: Melons are a type of fruit. Melons are juicy and sweet to eat. Melons can be eaten right after picking. The most popular melons are cantaloupe and watermelon. Melons grow on plant vines. Melons grow above the ground. They grow on top of the ground. There are many recipes that use

melons. Most people eat melons cut into small pieces. Melon can be put in yogurt, salads and smoothies. Melon juice can be frozen to make popsicles. Have students view the following video showing different types of melons. Pause periodically to point and discuss. https://www.youtube.com/watch?v=QoIrA4fuN_s

Point: cantaloupe growing picture, various melons picture, melon icon **WH Questions:** What is juicy and sweet to eat? What is a popular type of melon? What did the Havasupai people grow? **Yes/No:** Do melons grow in caves? Do melons grow on vines? Are melons a type of fish? Are melons a type of fruit? **Opinion/Experiences:** What is your favorite fruit? What color is your favorite fruit? How do you eat your favorite melon? **Peer to Peer Interaction:** After you read Page 5, ask students, "What grows on a vine?" The answer is the main idea card "melons." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.

Page 6: Sunflowers can grow in the Grand Canyon. Sunflowers are big yellow flowers. Sunflower plants grow really tall. The sunflower always turns to face the sun. A sunflower is about the size of a plate. It is the largest flower. Sunflower seeds come from inside the flower. There are a lot of seeds in a sunflower. Sunflower seeds are a tasty snack. Sunflower seeds are used to make oil. Sunflower oil has many uses. Sunflower oil is used in cooking. Have students view the following time lapse video showing the lifecycle of a sunflower. Pause periodically to point and discuss. https://www.youtube.com/watch?v=dKo5lvvtnWw

Point: sunflower pictures, sunflower icon **WH Questions**: What is big and yellow? How big is the sunflower? Where do the seeds come from? What is one thing that comes from sunflower seeds? What did the Havasupai people grow? **Yes/No**: Are sunflowers small and purple? Are sunflowers big and yellow? Do sunflower seeds come from sunflowers? **Opinion/Experiences**: Have you seen sunflowers at the grocery store? Was the flower really big? Did the sunflower have any seeds in the center? **Peer to Peer Interaction**: After you read Page 6, ask students, "What is a big yellow flower?" The answer is the main idea card "sunflowers." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.

Page 7: Squash is a vegetable. Squash grows on top of the ground. There are many different types of squash. Squash comes in a lot of different colors. Most squash are yellow, green and orange. Most squash is oval or round. Pumpkin is a type of squash. Eating squash is healthy. Squash has a lot of vitamins. There are many ways to cook squash. The most popular is to bake squash. Have students view the following video of different types of squash. Pause periodically to point and discuss. https://www.youtube.com/watch?v=t3y_PkZ9fpw

Point: squash growing picture, various types of squash, squash plant icon **WH Questions:** What color are squash? What is one way to cook squash? Where do squash grow? What did the Havasupai people grow? **Yes/No:** Are all squash the same color? Are all squash different colors? Are pumpkins a type of meat? Are pumpkins a type of squash? **Opinion/Experiences:** Have you eaten zucchini? Zucchini is a type of squash. What other squash have you eaten? Have you eaten pumpkin seeds? **Peer to Peer**

Interaction: After you read Page 7, ask students, "What kind of vegetable is a pumpkin?" The answer is the main idea card "squash." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.

Page 8: Peaches are a fruit. They feel fuzzy. Peaches are very healthy to eat. They are sweet and juicy. The outside of a peach is red, orange and yellow. The inside of a peach is yellow. Peaches have a big seed inside. Don't eat the seed! Peaches grow on trees. Peaches are picked by people, not a machine. There are many ways to eat peaches. Peaches can be eaten right after picking. Peaches can also be used to bake with. A popular desert is peach cobbler with vanilla ice cream. Have students view the following video of peach harvesting. Pause periodically to point and discuss. Pomegranates grow on trees too. They have a lot of seeds. You can eat the seeds. https://www.youtube.com/watch?v= uSBJXe 39s

Point: peaches growing on tree picture, peaches picture, peach icon WH Questions: What do peaches grow on? What color is the outside of a peach? What is one way to eat peaches? What did the Havasupai people grow? **Yes/No:** Do peaches grow under the dirt? Do peaches grow on trees? Are peaches green on the inside? Are peaches yellow on the inside? **Opinion/Experiences:** Do you like to eat peaches? How does a peach smell? Does it smell good? Do you like peaches and ice cream? Would you eat peach cobbler? Peer to Peer Interaction: After you read Page 8, ask students, "What did the Havasupai people grow that has fuzzy fruit?" The answer is the main idea card "peach trees." Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above. Pomegranates are a fruit. Pomegranates grow on trees. They can also grow on small bushes. Eating pomegranates is very good for you. They are very healthy. Pomegranates are red on the outside. Pomegranates have a lot of little red seeds inside. You can eat these seeds! Pomegranate seeds taste a little sour. Pomegranate seeds can be made into a juice. You can drink the juice. You can sprinkle the seeds into a salad, yogurt or oatmeal. Picking the seeds out of a pomegranate takes time and patience. Have students view the following video about pomegranates. https://www.youtube.com/watch?v=99IOfgwz9Jg Have students view the following video showing how open a pomegranate. <u>https://www.youtube.com/watch?v=baFuJ3dZeRg</u>

Page 9: The Colorado River is at the bottom of the Grand Canyon. That river has been there a long, long time. Hundreds of years ago the Havasupai lived down there. They used the water from the river to water their plants.

main idea card "Colorado River". Students will find the main idea card and read it to their partner. Teacher will prompt them to ask their partner some of the questions talked about above.