

INSTRUCTIONS FOR THE POTATO STORAGE SCIENCE PROJECT

LEARNING OBJECTIVE: Each child will discover that potatoes will turn green when left in the light.

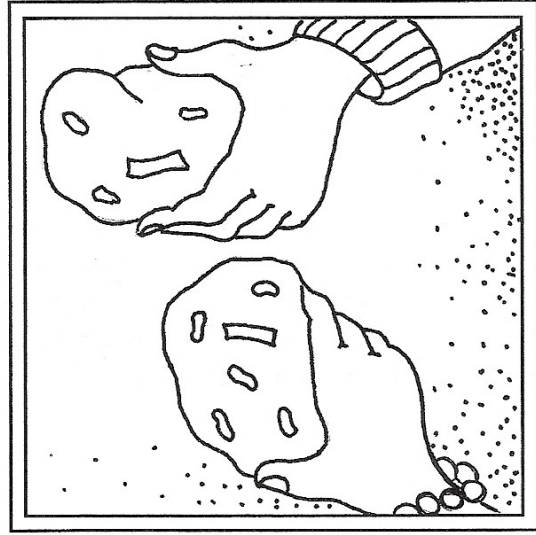
ITEMS NEEDED FOR THIS PROJECT

- 1) One *Storing Potatoes* color-book page for each child
- 2) Two white potatoes that have been stored in the dark
- 3) One brown paper bag

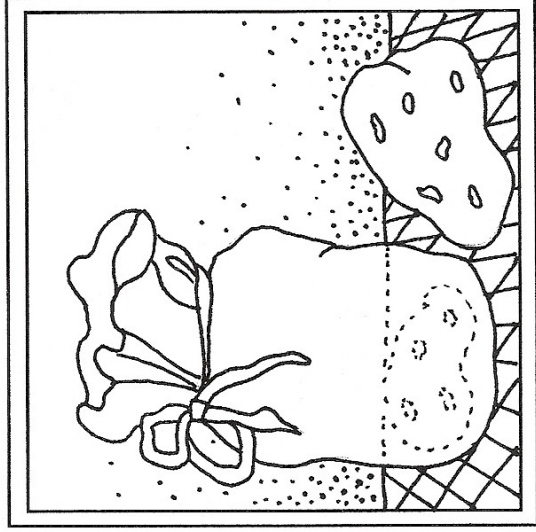
INSTRUCTIONS:

Pass out a *Storing Potatoes* color-book page for each child. Use your thumb nail to scrape a small portion of the peeling off each potato. Do this to show the children that both potatoes are white next to the peeling. Then put one potato in a brown paper bag. Close the bag tightly and put it in a drawer or where it is completely dark. Place the other potato in the light. Both potatoes (the one in the bag and the one in the light) should be placed in relatively cool places. After 10 to 14 days, use your thumb nail to scrape a small portion of the peeling off each potato. Note that one potato will remain white, while the other will turn green. The rate at which a potato turns green in the light depends upon the brightness of the light and the length of time the potato is in the light. The white potato will retain its flavor, while the green potato will taste bitter. Reinforce the role of light (photosynthesis) in plant growth. Discuss the fact that green potatoes are actually toxic and should not be eaten. Healthy potatoes grow in the soil, not above, and are best stored in a cool, dark place. Have the students color the page and write or discuss their learning experience regarding this project.

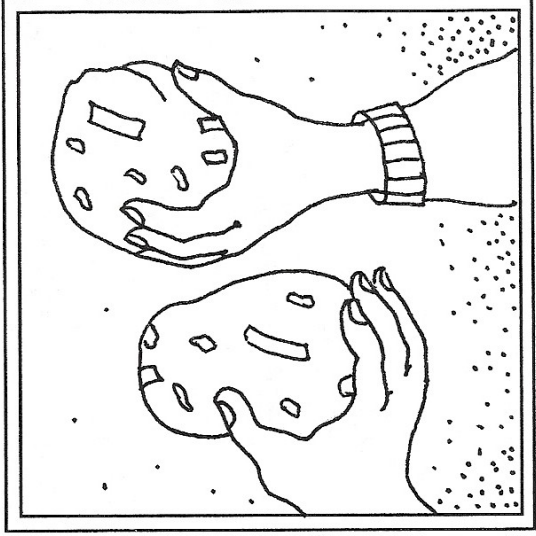
SIEMERS' FARM SCIENCE PROJECT: STORING POTATOES



Scratch a small piece of skin off each potato. Look to see what color the potato is under its skin.



Put one potato in a brown paper bag and keep it out of the light. Put the other potato in the light.



Wait 7 to 10 days. Then, scratch a small piece of the skin off each potato.

Discussion Question:

Are both potatoes the same color under the skin?

What do you think caused one to turn green while the other is still white?

Answer: The light causes the potato to turn green. The green potato is actually toxic. One should not eat any part of a potato that has turned green.

Then, what kind of a storage place do we need for potatoes?