

Kindergarten Science Project

Content Standards and Learning Objectives

SCI.K.2.3 2010

Describe in words and pictures the changes in weather from month to month and season to season.

- Students will predict how trees in Indiana change from season to season (winter to spring in this example).
- Students will infer as to why the trees and plants changed the way they did.
- Students will know that it needs to be warm for trees to keep their leaves. (correlate warm with summer and cold with winter)

VA.K.6.1 2008

Use objects or animals from the real world as subject matter for artwork.

- Students will use a photograph that they have taken of a tree to use as a basis of their drawing.

Description of the core content lesson

Students will be exploring the different seasons through pictures and visuals. They will be given a series of images in which they will need to put them into groups according to season. The different seasons are; summer, fall, winter, and spring. After the students have an understanding of the seasons, they will be doing an activity to help them fully understand what exactly changes from season to season. They will be predicting what a tree will look like from season to season. This will show they have an understanding of the different seasons.

The teacher will be the facilitator of the entire lesson. First have the students group the photos into each season in which they belong. Do this as a class and make sure that each student is able to participate. Be sure you have the students explain why each photo belongs where it is placed. If the students are wrong, place it in the correct season and ask why it might belong there. Once the students have a solid understanding of each season the teacher will assign homework. Each student needs a picture of a tree. It can be any tree, anywhere, as long as they have a picture of it. The teacher should have extra photos in case some of the students aren't able to get pictures from home. The students will then draw their own picture of the tree in the next season. So if it is winter, the students need to draw what the tree might look like in the spring. The teacher should be asking probing questions to struggling students to help them with the drawing. Be sure not to give the answers, but instead lead them to correct answers.

Steps for introducing lesson

- Name four seasons with the students and the order in which they occur
- Have a small activity where they group photos into seasons
- Describe how the photos are grouped and point out important characteristics (no leaves, colorful, green)

Resources

- Four seasons written out on paper
- Photos of nature

For the hands-on visual activity, the students will be creating a drawing by themselves. They will be using a picture of tree that they themselves have taken. The picture will be of the winter season since that is the season in which we are in for the months of December and January. The students will be drawing a picture of that same tree that they took a picture of. The difference is that they will draw the tree as if it was a spring month instead of a winter month. They will be using their prediction skills to draw what they think the tree will look like. They will also have to

recall on how they previously grouped images into seasons the way that they did. I would keep this as a reference for the students to look at if they need to.

Materials list

- Photo of trees (both from students and some of your own)
- Paper
- Colored pencils, crayons, markers
- Seasonal picture activity to reference from

Steps for the process and amount of time needed

- Have students get a picture of a tree in current time (allow a week for this: plan ahead)
- Have them list a few qualities of how their tree might look in the spring (5 to 10 minutes)
- Have the students draw and color the tree as if it were spring time (30 minutes)
- Have the students share their photos and drawing with the class with a short explanation of what they did. (30 minutes)

Integration Rational

Students will learn how to identify different seasons by using clues that the environment gives us as it adapts to the seasonal changes throughout the year. Students will be photographing trees to see how they will change as the year progresses. They will recognize the gains and losses of the tree as it lives throughout the year. The students will also be bettering their motor skills as they practice drawing a picture from a photo that they have taken. The will not only be copying, but adding too and taking away as well. The students will be learning the different types of seasons through these hands on activities that involve nature.

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Does the picture that the student drew resemble the photo of the tree?	The drawing is clearly of a tree and you can tell specific parts of the picture match up with parts of the photograph taken by the student.	The drawing is of a tree, but it is hard to relate the drawing and the photo.	The drawing is hard to make out and no tree is present in the picture.
Does the new picture that the student drew indicate that it is the spring season?	There are flowers or buds on the trees. There is more representation of the color green in the new drawing than there was in the winter season photo.	The picture has some differences of the previous photo, but not enough to make a distinction between winter and spring.	The photo is just copied exactly and no attempt was made to represent spring.
Are spring colors used in the picture? Bright colors vs. dark colors	There are bright colors surrounding the tree and flowers and buds are present. There is more color than black and white.	The drawing has some bright color to it and you can tell there is grass growing, or some sort of new shrubbery.	There was no attempt to changing the colors and the drawing looks identical to the photo.
Is the emphasis of the drawing on the tree and not on background objects?	The center of the picture is the tree that was photographed and emphasis was put on the changing of the tree and not the background objects.	The center of the picture was of the tree, but you can tell the student was more interested in the detail of the buildings or scenery beyond the tree.	The tree was barely in the picture and the drawing was not reflective of the assignment.

