3-5 years

pri-sci-net

inquire
investigate
evaluate
connect

Science Content:
Physical Science and Environmental Science

Target Concepts/Skills:
Objects in the sky, changing nature of clouds and sky colour, sun, shadows

Target Age group:
3-5 years

Duration of activity:
3 hrs over a period of time for an individual group or class

Summary: The children note that the sky is constantly changing. We see it at predominantly blue but the colour of the sky changes depending on certain factors. The teacher asks the children 'What is above our heads outside?' so that the children are made aware of the sky. The teacher then continues with questions such as 'When do you see it? Where? When do you notice it? Is there sky at night? When do you hear adults talking about the sky' The activity then involves the children observing and noting the sky.

Objective:
By the end of the activity children should be able to:

- Observe the sky and link what they see with different kinds of weather;
- Note the changes in the sky particularly between day and night.

Resources:
For each group of children:

- Digital cameras;
- Coloured paper, scissors;
- Audio recorder;
- Computers;
- Chart papers;
- Glue pictures of skies;
- Colour charts, pieces of coloured paper,
- Fabrics to which to match the sky

This activity is done best as small group work.

Sky!

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European Commission

CAPACITIES

Sky!

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1. Engage (Forming hypotheses)

Start by asking the children what they mean by the 'Weather". How do we all know what the weather is like? How can we tell? Then ask them , " What is the sky? Where is it?"
Talk about the colour of the sky, in pictures or in the experience of the children. What do they say?
"Is the sky always blue to look at?"
Teacher to pose this question to children and ask what they know about the sky. " Does the sky appear to change its colour in 24 hours? is a night sky the same as a day sky?" Inquire whether the children have seen the sky at night? What is the night sky? How is it the same and different from the day sky? What colour is the day sky?

Challenge the children as to how they may find out if the colour is the same everyday? What do they think and why? What do they suggest they can do to answer their questions?
It may help to have a colour chart of colour possibilities they can hold up to match with sky. At the beginning the teacher needs to talk about the possible colours and give names.
What can they see in the sky?
Ask the children which questions for which they will search out the answers. With whom will they work?
Record the questions on a chart or similar so the answers can be displayed and discuss at the end of the investigation

2. Inquiry

What do the children suggest they can do to answer their questions?
Suggest observations three times day, beginning of school; end of morning and just before home time. How can the children record what they see?
Children best working in twos or threes at the older end of this group so some collaboration needed on watching, deciding the colours.

First of all when they look at the sky, they could tape record what they say and play it to the group after this. They could take photographs. When they have decided what color it is and come to record it. Suggest a chart and crayons paints, make a photo journal of the sky and print the photos and assemble on a wall display or a power point slide show.

Children look and keep a record by drawings and they take photographs if possible, each day- birds, aero planes, sun, clouds, moon is usually what they will say.

3. Evaluation

When the sky observations for a week have been made, look as a group at the records of observations they have made, chart, and photo journal, audio recordings.

The teacher to pose questions, "Is the sky always blue?" how do you know? What evidence do you have? What can the children say about the colour of the sky? Is it always the same? Is the sky colour associated with any particular kind of weather?

The adult records the format and vocabulary the children use. It is useful to note the responses of the children to the questions posed by the adult.

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Teachers Notes

Vocabulary: Sky, clouds, sun, stars, rain, blue, grey, white, dark, light, day, night, week, wet l, drizzle, heavy, observe, record, compare, weather, photograph ,draw, colour, birds, planes, moon, stars weather forecast, regular times, same time, night sky, day sky.

Children do not usually have a concept of outer space although they know that aero planes and hot air balloons travel through the sky and that space crafts go very high. They may have noticed in space films that space looks black. Thus they may realize that the sky is not a low and solid entity.

This activity introduces them to systematic and regular observations, the fair test, and should help them learn the importance of evidence especially when they talk about the sky observations and records they have made over the week (or however long) of their observations.

The logistics of some work, the items needed, and the human resources management are vital part of learning science. Through introducing children to taking responsibility for these aspects we can develop the social and management skills and problem solving attribute that the outside world demands.

The most important questions for the teacher to use in order to guide the process are:

- What is the challenge?
- What do we know about this already?
- What are we planning to do,
- With whom will I work What jobs will we each do?
- What items do we need to do this?
- From where will we obtain the things?
- What are we going to use?
- How are we going to make the equipment and set up the experiment?
- What are you going to do first?
- What do you think will happen?
- Why do you think this will happen?

It is optimal that the children go outside to the same place for every observation; ask them why, to ensure a fair test. However common senses have to be used in case of bad weather so set up a sky observation spot by a window. Make sure each observation has the place from which it was observe recorded. If you have several groups being Sky Watchers at the same time establish a Sky watch station for each group. Facilitate each group having a board on which they can display their observations.
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