### What to understand about a science notebook ...

Notebook work reflects a small portion of your child's experience in science, yet this collection will give you a sense of the types of scientific learning your child has done. Notebook entries may be minimal for students in grade 1 through the beginning of grade 3, for they are in the earlier stages of their literacy development. However, a progression and pattern of thinking and communicating does emerge. In an effort to give you a clear picture of your child's progress in science, it is important that you are able to see evidence of your child's reflective thought processes and his/her level of skill to communicate and organize what he/she knows. Students actively engage in creating learning goals by looking at their own work and by receiving teacher feedback. As you look at your child's science notebook, keep in mind that it is a working notebook and not a polished, final product. Students are encouraged to use environmental print, but you will notice a lot of invented spelling that allows them to capture their observations and thoughts.

## The role of feedback ...

The notebook is a focal point for discussion and the role of the teacher is to act as a guide. Suggestions for how to make improvements and how to make the notebook a useful resource are topics of ongoing discussion between teacher and student. Teacher feedback is expressed orally to students as they add words, labels and reframe their thinking and their explanations. The notebook provides insight and mirrors students' conceptual understanding, which leads to more learning conversations between student and teacher.

#### Guidelines for looking at and sharing your child's notebook ...

As you look at your child's notebook, be reminded that his/her work exemplifies a process; it gives you insight into what your child is thinking about. Your child is proud of the efforts made in science class. Your child's observation, record-keeping and analytical abilities are a cause for celebration. Ask your child to tell you about the science notebook entries and have him or her share what happened in science class.

#### What to look for ...

The guide on the next few pages offers you, the parent, some information about how best to look at your child's notebook and how to gauge progress. Science notebooks contain several categories or elements related to the type of work that your child may have attempted or accomplished. Looking at components in each category can give you insight into how your child works through understanding content and developing science process skills. A science notebook contains ...



# Guide for insight into each category ...

**Element 1 - Organizational Features**: The following components help students develop skills needed to retrieve information.

- ➤ date
- ➤ title

**Parent insight**: Look for places in the notebook where there are organizational features. These entries give some insight into the way your child is beginning to develop methods to organize information. First and second graders are beginning to use these features more consistently to help organize information.

**Element 2 - Organization of Data**: The following components help students develop and demonstrate knowledge or understanding.

- diagrams with labels
- observational drawings
- charts, tables and graphs

**Parent insight**: Look for places in the notebook where data and observations are organized. These entries give some insight into the way your child is beginning to be able to categorize, to identify similarities and differences and to see simple patterns and relationships before, during and after scientific events occur.

First graders are just beginning to draw simple sketch-like diagrams to record scientific happenings. Some first graders use a key as a way to communicate symbols used in their diagrams. First graders are just beginning to use pre-made data tables to organize and categorize their scientific evidence. Some first graders are independently using graphic organizers such as a T- chart, or lines to separate data. The way the information is categorized by your child shows his/her understanding of simple patterns or relationships about concepts. Observational drawings should reflect some understanding of how the object is structured.

Second graders are beginning to draw simple sketch-like diagrams to record scientific events or to illustrate designs with more independence. Second graders often include a key as a way to communicate symbols used in their diagrams. These keys can give insight into a level of organization that your child demonstrates. Second graders are just beginning to communicate graphically by organizing and categorizing their scientific evidence. They are beginning to independently use graphic organizers such as a T- chart, or lines to separate data. The way your child categorizes the information shows his/her understanding of simple patterns or relationships about concepts, including similarities and differences. Observational drawings should reflect some understanding of how the object is structured.

**Element 3 - Written Communication**: The following skills help students communicate ideas that make sense.

- describing observations using words and measurements
- summarizing and wondering about scientific content
- > questioning about prior experiences or future explorations

**Parent insight**: Look for places in the notebook where there are written entries. These entries give some insight into the degree to which your child is able to make sense of scientific content in writing. Students are encouraged to use environmental print, but you will notice a lot of invented spelling that allows them to capture their observations and thoughts. Those children more reticent to write and more comfortable with manipulating materials and orally expressing ideas may have fewer examples in this area.

First graders may write minimally with one word, simple phrases or sentences and use some new vocabulary to describe observations or state a question.

Second graders may write with simple phrases and sentences and use some new vocabulary to describe observations, summarize or state a question. Second graders begin to use measurements in their descriptions.

Note: All notebooks are kept until the end of third grade as a part of a learning record. This guide is designed specifically for the parents of The Montclair Kimberley Academy created by Sue Tummarello with input from curriculum committee. (Note: Additional guides are designed for grades 4 and 5)