10 STEPS FOR USING RECORDING SHEETS IN THE CLASSROOM





By Patricia V Bentham ©www.kindergarten-lessons.com

About The Author

My name is Patricia Bentham and I am the creator and author of http://www.kindergarten-lessons.com.

I help teachers provide children with opportunities:

- to learn with investigations, inquiry and experiments
- to be creative
- to record and value their observations and results

I have over twenty years of teaching experience and have taught students from Kindergarten to grade 12, as well as adult education classes. I have a BEd and am certified to teach in BC, Canada.

I've completed programs in Print Design, Typography and Website Design, as well as numerous art and design courses.

I'm also an artist and teach illustrated journal classes, helping others capture, through drawing and writing, some of what brings gladness, color, beauty, and laughter into their lives. If you're interested in this, please visit my other website, http://www.patriciabentham.com.

Introduction

There's an abundance of printable worksheets available to educators today. Many teachers make their own and there are websites dedicated to selling them.

The question is - how relevant and valuable are they to a child's learning experience?

Understanding how young children learn - by taking part in meaningful sensory experiences with real things, playing, experimenting, asking questions, inventing, and through social interaction, will help you determine how many and what kinds of printable materials you give your students.

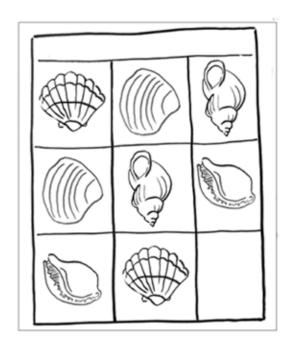
What's the difference between a worksheet and a recording sheet?

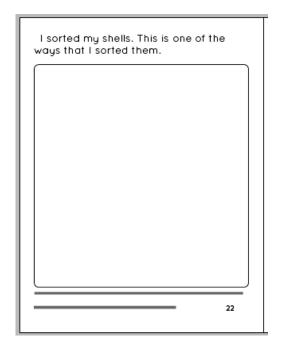
A worksheet generally only has a "right" or "wrong" outcome and challenges children at a knowledge level. Children are not required to engage in original or critical thinking.

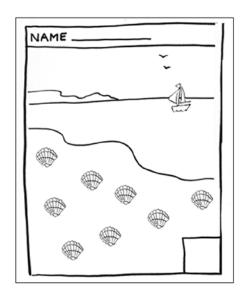
A recording sheet, on the other hand, challenges children to use higher level thinking skills. Students are invited to share their thinking, illustrations, observations and / or results.

In the sketch of the worksheet below, students are required to cut out the shells, match the ones that are the same and glue them beside each other on a piece of paper.

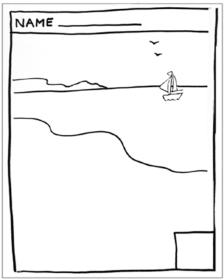
The recording sheet below is completed after the students have had time to explore real shells. Then they spend time sorting the shells and finally record one of the ways they sorted their shells.







With the worksheet above, students are asked to count the shells and print the number in the box.



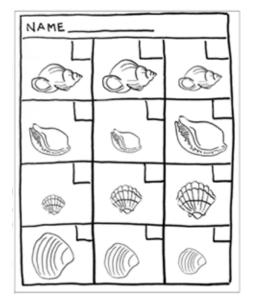
This worksheet requires more thinking. The students are asked to draw more than 6 shells on the beach and then print the number in the box.

A common mistake

Often young children are given too many knowledge based worksheets, rather than time to find out how the natural world works with observable physical evidence.

Most worksheets do not provide opportunities for higher level thinking skills (understanding, applying, analyzing, evaluating, creating).

Children are curious and learn rapidly as they investigate and test real things. While knowledge level worksheets are not void of educational value, the overuse of them may mean your students miss out on chances to explore and experiment on their own.



Often worksheets, like this one, require children to sort by size by putting numbers in the boxes.

They replace real life experiences with paper and pencil ones.



Sorting with real objects



Recording observations

The argument for using more recording sheets

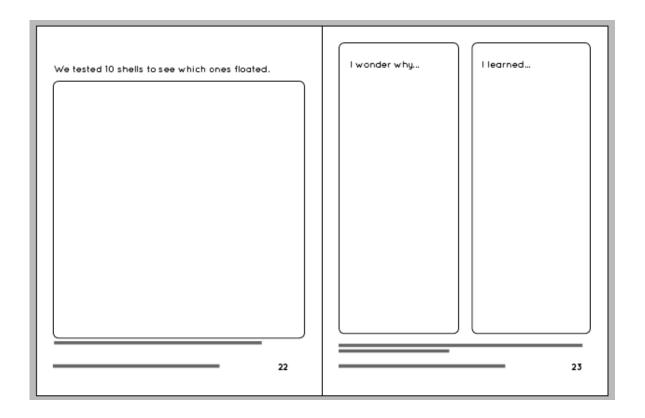
One must ask - What meaningful learning experiences are my students actually having when I give them this specific worksheet or recording sheet?

If the act of recording on paper is an opportunity for children to:

- Record their ideas, observations and experiments,
- Try out new vocabulary,
- Record the results of their sorting or classifying,
- · Draw and label their collections,
- Understand, apply knowledge, analyze, evaluate and/or create well that's different and wonderful.

What does a recording sheet look like?

A recording sheet may be a blank sheet of paper or a printable handout with a specific layout of boxes and/ or words printed on it. Depending on their abilities, some children will print words or sentences, make detailed drawings, apply more difficult math concepts, while other students will print a few letters, draw less elaborate pictures, and record less complex mathematical thinking.



Recognize the Value of Recording Sheets

How do my students benefit from using recording sheets?

The process of recording their observations and results provide children with opportunities to:

- Practice communication skills
- Talk about their observations using new vocabulary
- Work with others by sharing, listening, and encouraging
- With help, show their information in a realistic and organized way
- With help, record their knowledge in different ways with pictures, graphs, math, and writing
- Share ideas about why the thing they observed happened
- Ask "I wonder how, why, if..." type questions

Step 1 – Be confident in your methods

At first, using less worksheets and organizing for the use of more recording sheets can be overwhelming for teachers. Read on for tips to make this experience easier. Knowing why you are choosing to teach with a more hands on approach and why you are attempting to have your students record more of their observations and results, will provide you with the confidence to discuss your methods with staff or parents who may question what you're doing.

Using less worksheets enables you to:

- Use real objects to stimulate your students' curiosity
- Create opportunities for students to touch and investigate
- Present activities to students in ways that improve their ability to make sense of measurement and data concepts
- Provide opportunities for your students to be creative problem solvers
- Teach children to ask more questions
- Direct the children to focus on a specific topic that encourages them to look for more information from books and other sources
- Present opportunities for collections, sorting, classifying, comparisons and/or testing
- Make activities available that include observations about quantity, size, position and/or proportion
- Increase students' vocabulary with real life materials
- Encourage different ways for children to record their observations and new knowledge and give them opportunities to share it
- Involve children at a wide range of developmental levels

How Do I Start?

Step 2 - Be Enthusiastic and Set the Mood

Your students will pick up on your enthusiasm and curiosity and be inspired by your excitement level. "Wow! Look at all of the shells. I can't wait to measure (play with, observe, weigh, compare, draw, study...) them today!" The more animated you are about the objects to be studied and the activities you do with them, the more excited your students will be.

Children learn through interactions with real objects that stimulate and challenge their minds, as they play, experiment, invent and through social interaction.

Step 3 - Create space for exploration

Create a touch and feel, easy to update science center in your classroom and other spaces that provide children with the room to poke and prod and use their senses to explore objects. Allow time for this before you use objects for group lessons.

Step 4 - Make time in your schedule for group investigations.

Observation is a skill and like so many other skills the more you practise the better you get. Asking questions will inspire your students to take a closer look.

> What do you notice about the ...? How are they the same? How are they different? How can we sort the ___? What else do you notice?

Step 5 - Use observation times to introduce vocabulary

Help children put language to their observations. If a child says their shell feels bumpy, reply with, ves, it does feel rougher and more uneven than the other shells.

A few vocabulary prompts could be...

What words could we use to describe the feel of (the shape of, the size of, the aroma of...) our shells (or rocks, feathers....)?

What does your remind you of?

Children may say, "It's soft like a kitten" or "It's rough like my patio."

To read a detailed sample lesson that challenges children to investigate go to kindergarten-lessons.com here,

http://www.kindergarten-lessons.com/challenging-children-to-investigate/.

The Process of Recording

After children are challenged to investigate an item, don't assume they'll think about or want to record their observations or understand that what they have discovered is worthy of recording. Demonstrate recording your own observations to help the children value the process. Remember - Keep demos short!

Step 6 - Recording your thinking. Why bother?

The purpose of modeling writing and drawing pictures of your own observations is not to have all children copy what you do. It's to motivate your students, so they may, over a period of time:

- gain an understanding of the process and value of sharing their knowledge and/or discoveries with others
- observe that there are many different ways to record their thinking by watching you think out loud, draw, and make decisions about layouts, colors, and words to print,

i) Getting organized to model the process of recording

Move all objects away from the children or they will be distracted. Keep the item(s) you are going to talk about in one hand so you can refer to the real thing as you record. To be sure all children can see, use large chart paper and, a dark felt marker. If you are giving your students a preprinted recording sheet, such as a paper with a box already drawn on the top half, draw the same format on your large sheet of chart paper.

ii) Thinking out loud

Speak out your thinking processes as you print and draw on your chart paper. For example you might say, "First I'm going to draw my shell. It's shaped like a circle but it is sort of jagged so I'm going to try and draw a jagged looking circle." Continue this process, looking back and forth at the shell in your hand.

"When I look closely at my shell, I see thin stripes on it, so next I will draw some thin stripes by making lines here." Show them how and draw large so all can see.

iv) Introducing new vocabulary

For instance say, "When we talked earlier about my second shell we noticed it was triangular, so I will make a triangle shape beside the first shell. I'll put three dots and join them like a dot-to-dot to make a triangle".

v) But I can't draw!!!

A note to educators who say, "I can't draw". I feel your pain, not because I can't draw but because I can't play a musical instrument and singing is a mystery to me BUT I know that if I wanted to improve, I could. If you think you can't draw, refer to the 3 posts on kindergarten-lessons in the Art category about step-by-step or directional drawing. They will show you how to look for basic shapes and how to add bits of detail. That's all you

need for a demo with young children. If you'd like to learn even more about drawing, check out my art website, www.patriciabentham.com

vi) Draw as large as possible

Some children draw tiny, unrecognizable pictures in the center of a piece of paper. To encourage them to draw larger, make a big deal of drawing as big as your space allows.

vii) Demonstrate different ways of setting up your paper
This is an excellent skill that children who work only with worksheets do
not have an opportunity to develop. For instance, if you are comparing shells, you may demonstrate how to divide a blank paper in four by
drawing a line down the middle and then another across the paper.

vii) Stick to one felt marker and lighter crayons

To prevent students from coloring over an interesting observation drawing, show them how to use one dark colored marker to draw with and lighter colored crayons for coloring in. The dark marker will outline the subject and make it show up clearly.

viii) Adding math and language arts to demos

When your students are more familiar with recording sheets, add math and language art concepts. For example, point to the shells you are writing about and say something like, "I noticed 2 shells had bumpy lines and one did not have bumpy lines. I'll draw 2 shells here with the lines and a shell with no lines here. Now I'll print the numbers beside the shell drawings. I want to print the word "shells". I'm not sure where to put it. What do you think?"

A student may suggest an empty spot at the top of the paper. Have students help you sound out the word or ask them where the word might be in the classroom so you can copy it.

End by emphasizing the value of the recording sheet. Now I can share what I've learned with your buddies or with class visitors.

When you are modelling how to record your observations, don't assume all children know directional and positional words like over, beside, under, middle, center, to the right, left, above, after, before, behind, between, bottom, front.

Slow down as you move your hand across the page to demonstrate these words.

Helping Children to Record

Step 7 – The children's turn to record

Materials

- Crayons with the dark colors removed
- One dark marker per child
- Paper or a readymade recording sheets



Working in Small groups

Depending on your class size and the age of your students you may want to set up a space at a center or table and have children work in smaller groups.

Young children love routines and having a space in your classroom stocked with "recording materials" works well. Provide samples of the objects the students have been working with that week.

Give students plenty of time to play with objects before having them record. Without this, they won't be ready to move on to the recording step.

Trust students to record something that interested them during the group activity or something they are observing at that moment. A few may try to duplicate your recording sheet but most create their own pictures. Some children will ask for help, while others will attempt to sound out and print their own words or copy words from the demo chart or from word cards. Using open-ended recording sheets allows each child to work at their own developmental level.

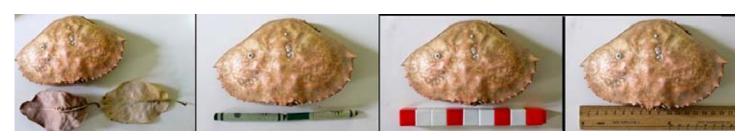
Finally, students show you their finished work and stamp the date on their page. This is a good time to chat with the child and value their hard work and observations.

You may want to jot a sentence on the page to share with parents when the student tells you about their experience. Students then place their work in a special place in the science center, ready to share with the class at a later time if they are comfortable doing so.

Adding words



Experiment with different ways of measuring.



Group Sharing

Step 8 - Schedule opportunities to share

Provide time for student-to-student sharing and discussions, as well as time for students to share their recording sheets with the group. Help children value their work by using questions such as:

What was your most important discovery?

Can you tell us some of what you did that you are the most proud of?

Which of your drawings do you like the most?

Step 9 - Direct students towards further inquiry

Is there anything new that you are wondering about? What else would you like to find out about shells? What did you learn, what else would you like to learn?

Step 10 Relax and have fun

Have fun and give yourself time to feel comfortable. Trust that all children will make observations and will eventually learn to record something of what interests them.

Some educators feel nervous when they start using a more open-ended recording process. Don't expect perfection! Little children will generally record only a tiny portion of their observations and will find completely different things more interesting than what adults would expect. Relax and let them draw and print about what fascinates them.

Children perceive their world differently than adults. If you are trying to help students classify shells into patterned and not patterned groups, for instance, and a child is excited about the gleaming iridescence in some of the shells, let go of your ideas and prompt them to tell you more about the sparkles.

Your students' ability to record their investigations will increase as they practice the skills involved and observe you regularly modelling the process. Each child has a unique way of seeing their environment. Their recordings are valuable. Not only do they communicate the children's ideas to others, but they allow you and their parents to view their progress,

What Do I Do About..?

Children who are restless and distracted

Tune into your students' attention spans. Don't drag out any of this process too long. You don't have to model everything to begin with. Spread it out over a few months and keep it simple.

Stop and do a movement activity if you are losing the student's attention, especially at the beginning of the school year. Children's attention spans are VERY short! If your students need fresh air, food, to use the bathroom or to stretch and move, they will not focus on anything else!

Expecting too much, too soon

Pace the activity. These are very young people. Introduce new activities over a week or two. Going to school for the first time can be overwhelming. My first wise, mentor teacher told me I was doing a great job, then advised me to take every thing I'd just taught them in one hour and spread it out over 3 weeks!

Children who just don't want to record

As children watch their peers recording and sharing their knowledge, they will be encouraged to do the same. Consistent modeling of the drawing and writing process for the recording sheets you want the students to complete will inspire them.

Kids who draw tiny pictures or pictures with no detail

To encourage children to draw larger pictures, teach them about this during separate art lessons. To help them understand what size you are asking for, try the following. Ask kids to open their hands and put them in the middle of their papers, and then draw a circle larger than their hands. Explain this is drawing big. Then draw a big jagged leaf in the center of your paper and a teeny, tiny leaf. Ask them to count the points on the teeny leaf, then on the big leaf. Explain that drawing bigger makes it easier for others to see their drawings.

Ask children questions to prompt them to add more detail to their pictures.

Was your shell a dark or light color?

What color crayons are you going to choose to color your shells?

How could you make your shells look smooth (or bumpy)?

Can you think of a way you could make your shell look speckled? Striped? Shiny? Pitted?

Were all your shells the same size? Shape? How could you draw them different sizes?

What do I do About?

Children who finish SO fast

Some children work really fast and their work is amazing. Provide activities that they can choose to do while remaining with the other students, so they do not distract them. Often children will be content to get another piece of paper and draw more. Place books about the topic of investigation nearby and have the fast finishers read quietly until more children have completed their recording.

Some children need more encouragement to record any of their experiences and often engaging them in a conversation with a child who is busy recording will motivate them to try.

Tip! Don't make getting to play with blocks or at other "fun" activities a reward for finishing a task, as some children will hurry their recording for fear of missing out on a fun time.

Parent Expectations

The student's work just looks like a pile of wiggly lines. What will the parents think?

Some parents do worry when the stream of worksheets stop arriving home everyday. They wonder what their kids are doing at school. When your students begin to take home unrecognizable work, it is helpful to send home short notes every so often about the value of what their kids are doing. See the list on the next page for samples of learning outcomes to put into a note.

A word of explanation helps and adding a few notes in pencil near the students' drawings helps parents to understand what the random looking shapes are all about!

Some educators use preprinted recording sheet, (see the samples at the end of this book), and others add short explanations for parents about the week's investigations before printing.

Printables - Do they...?

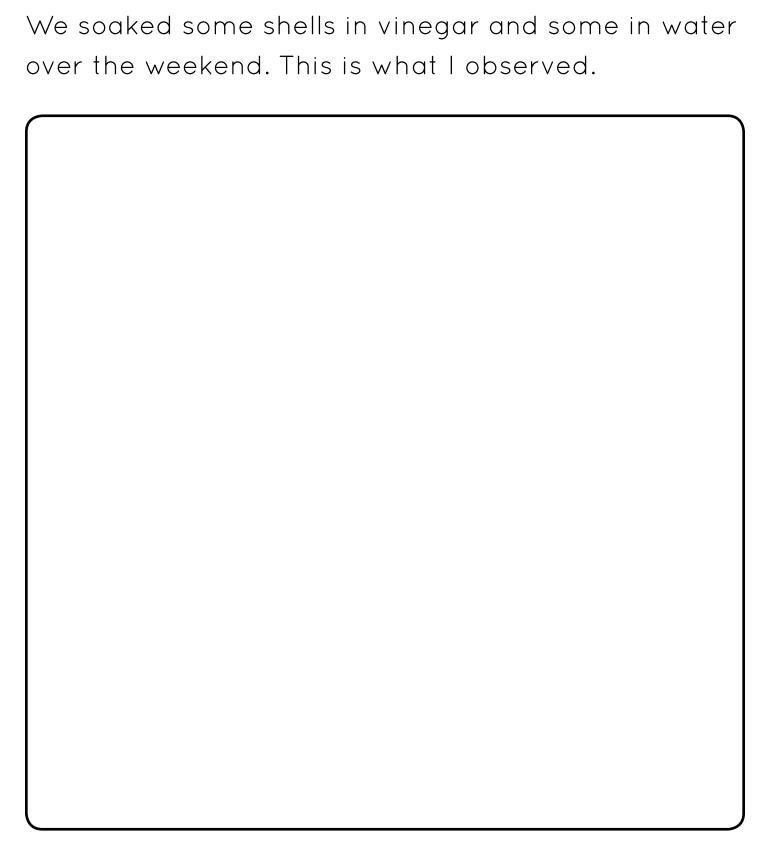
So returning full circle, the question was, how relevant and valuable to students' learning experiences are the printables you are asking them to complete?

To help you decide, think about whether the printables provide students with opportunities to do any of the following:

Study real things	
Experiment and create	
Manipulate materials	
Learn about the properties of a variety of materials	
Engage in sensory exploration of different materials	
Discover cause and effect and change of state	
Increase small muscle development	
Experiment with space, shape and size	
Record some of their observations or original ideas	
Practice printing letters, words and numbers in a	
meaningful context	
Choose materials and organize design	
Represent their environment	
Explore spatial relationships	
Develop a comparison of colors and textures	
Learn about working within large or small boundaries	
Organize pattern sequencing and rhythm	
Develop self expression and inventiveness	
Practice social skills	

Try the four sample recording sheets in the next section.

I sorted the This is one of the ways that I sorted them.				



Parents: New vocabulary introduced: dissolve, acetic acid, calcium carbonate

I wondered if	l learned

Parents: The children have been investigating ______, asking questions about them and practicing recording their new knowledge.

Shells

These shells are shiny.

These shells are not shiny.

Some of the shells are ...

Made for you recording sheets...

Teachers are busy and the thought of incorporating one more thing into their busy day may be overwhelming.

If you'd like to ease into the whole process of using recording sheets, I've created an ebook. "Challenging Children to Investigate with Everyday Things".

All the work is done for you. Each week your students will all bring the same easy to find, everyday item from home to investigate and inquire about.



Students then have opportunities to develop problem-solving skills, think independently, ask questions, contrast and compare, increase their vocabularies, be part of a group activity and record their new knowledge.

The ebook includes:

- a year's worth of hands on weekly activities
- recording sheets that go with the weekly activities
- detailed set up and organizational tips
- parent letters

If this interests you, visit the shop page at http://www.kindergarten-lessons.com/ebook/

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