JR IDEAS

THE NEWSLETTER OF THE ONTARIO ASSOCIATION OF JUNIOR EDUCATORS

OCTOBER 2009

Building Oral Language Skills

A quick question - Who does the most talking in your classroom? In many classrooms it is the teacher's voice that is heard most often. But managing a classroom where students are encouraged to talk, discuss, debate and converse can be a challenge. Along with structured conversations during literature circles or science and art activities, you can use some quick games to encourage oral language - expressive - skills with your students.

I like to have a few quick activities ready-to-go for those opportunities when five or ten minutes arise in the course of a school day - an inclement weather day, waiting to go to the gym for an assembly - any number of the many transitions that happen each week.

Hide-a-Word

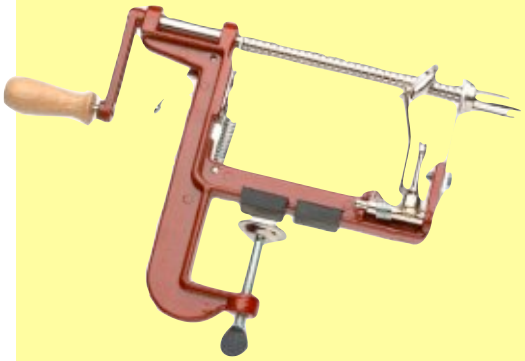
Write some challenging vocabulary words, like 'transmission or irked or persistent', on scrap pieces of paper and put them all in a container. Select a student who is going to take on the role of 'storyteller' for this particular activity. At the beginning of the year you should start by selecting the outgoing and confident students until those who are less comfortable speaking to their colleagues have an understanding that this is a safe, risk-free activity.

The 'storyteller' draws a word from the container early in the day and has some time to think about the word they have drawn - perhaps even to look it up in a dictionary if necessary. Their task will to to tell a story about anything they wish- no longer than one minute - in which they have hidden the selected word. Allow the storyteller to tell their one-minute story either sitting at their desk or standing - whatever is most comfortable for them to do.

Once they have told their quick story challenge the class to guess what the hidden word in the story was. Have students vote on the word they think was hidden. This activity not only encourages oral language, but also careful listening to a peer's story to find the hidden word.

Classroom-ready Ideas for Teachers of Grades Four Through Six

Liar's Club



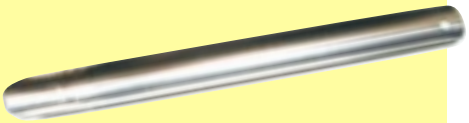
Bring a mystery object to the classroom - a tool, device or object that would not be familiar to the students. In the past we have used things like a table-mounted apple peeler, a horse sweat scraper, a preform 2 L pop bottle - something that would be unfamiliar to most of the students.

Select four students who are going to explain what the object is - provide them with a slip of paper. Three of the slips are going to read "Make something up" and the other will explain what the object actually is.

Give the students time to think about what they are going to say. I normally select the students early in the day and don't do the activity until much later. This gives the students a chance to think about what they are going to say and rehearse it in their mind.

Give each student an opportunity to explain what the mystery object is and how it might be used. Once all of the students have had an opportunity to share, ask the rest of the class to vote on which student was telling the truth and actually knew what the object was.

As with the Hide-a-Word activity on this page, with Liar's Club the students will become increasingly confident - and trickier - the most times that you do the activity. The first few times you try this you may find the students are tentative and unsure until they see how it works to tell about something that you don't know with confidence and skill.



JOIN OAJE FOR FREE!

The Ontario Association of Junior Educators (OAJE) provides a network for education professionals to share ideas and resources, to assist and support teachers and to advocate on behalf of students and teachers in the Junior grades.

Members of OAJE receive a newsletter outlining news, events, conferences and teaching tips. They are also invited to provide input, information and opinions for the Ministry of Education about issues of importance to Junior Division teachers. And, by joining, you will be sure to receive all future editions of this newsletter, along with lots of other valuable teaching ideas.

To become a member of OAJE, simply register online at http://oajemembership.eventbrite.com

Data Management and Probability

Hallowe'en Survey

I am always looking for a way to connect learning in Mathematics to real-life experiences and for strategies where students can use their math skills to solve problems or answer questions in their lives.

This activity uses a special occasion that many children look forward to and many families celebrate. However, not all families or schools celebrate Hallowe'en and it is important for you to know your school's policies and the sensitivities in your community BEFORE you do an activity such as this.

Brainstorming

"What are you going to be for Hallowe'en?" is the oft heard question on elementary school playgrounds as October 31st approaches. Many of the younger students in a school eagerly outline what costume they are wearing or character they are dressing-up as, while older students try and decide whether or not they will be going out with friends to trick-or-treat one more time.

I like to start out this activity by asking my students what costumes will be MOST popular with the younger students for Hallowe-en this year. We list all of the suggestions on a piece of chart paper or on the blackboard. I ask the students to suggest why one particular costume or outfit is more popular this year than another and we also note that information.

The Question

The brainstorming leads us to a question that we need to gather information about and to answer, "If you were advising someone about what costumes/characters would be MOST popular with the younger children at your school this year, what would that be?"

Have your class suggest the ways in which they might answer this question.

What data would they need to gather?

How might they gather that information?

What steps would they need to follow to gather the required data?

How would they analyze that data?

What would a report about the data include?

The students suggest ideas for each of these questions and we keep track of their responses with jot notes on a piece of chart paper or on the blackboard.

Probability

Ask the students to consider what costumes they think are going to be the most popular for younger students to wear this Hallowe'en. Ask them to think about this question "If you were to ask 25 children, how many of them would choose the costume that you think is the most popular this year?"

The Survey

The class is divided into groups so that there is one group (at least a pair in each group) for each Kindergarten and Primary class in your school. The group's first task is to devise a way in which they are going to find out what the children in the class they have been assigned are going to dress up for on Hallowe'en.

Now here is an important note: WARN YOUR TEACHER COLLEAGUES THAT YOU ARE DOING THIS ACTIVITY WITH YOUR CLASS before your students start asking them if they can come into their classroom to ask their students a question.

In the past I have had some group of students decide they were simply going to ask young children to raise their hands to a series of questions - those with younger JK and SK children quickly learn that this strategy is tenuous at best. Other groups of students have devised a short printed survey that they ran off on the back of discarded paper. Again they found that the reading/writing abilities of some of the much younger children was a challenge.

Don't tell your students HOW to do the survey. There is as much learning in finding the strategies that don't work as the ones that do.

Compiling the Results

Now that the groups of students have gathered their data it is time to put the math to work.

Have the students report on the results of their group's findings. They can share their results in the form of a chart, a graph - whatever way they feel is most effective in communicating the results of their survey. Again, it is important for the students to decide how to communicate the information as this is how they learn to select among different strategies in the future.

Working with the results from one class of twenty younger students is a manageable way to be begin. After all of the groups have shared their results CHALLENGE the class to offer suggestions how the data can be merged or aggregated into one result for the entire school.

Use the data to answer the questions posed at the beginning of this activity, and to discuss new questions that emerge:

How are the results the same or different from class to class?

How are the results different or the same between the youngest students and the oldest students surveyed? What might explain these differences or similarities?

Finally, who might be interested in the results of your survey? How would you reach this audience with the information you have found out? (last year the students wrote a short article about their research of the school newsletter and it was picked up by the local Parenting Magazine!)

Data Management and Probability

Tacks

I am always looking for interesting ways to engage students with using their mathematics and investigation skills. Here is an activity that uses very simple materials and provides students with an opportunity to gather data, interpret their findings and predict future outcomes based on their work.

Materials:
- one plastic cup per student or pair of students
- a small square of plastic wrap (big enough to seal over the open mouth of the plastic cup)
- ten metal push tacks

In Action:

Demonstrate the set up of the activity for the students. Add the tacks to the plastic cup and seal over the top with the piece of plastic wrap. Use a length of clear tape if the plastic wrap isn't holding taut.

Flip the cup and tacks over and set it down on the table. Some of the tacks are lying flat on their tops and others are leaning on their pointed ends. Count the 'flats' and 'leaners'. Challenge the students to consider how many out of ten tacks in a flipped over cup would end up 'flat' and how many would be 'leaners'?

Some students may suggest 5 of each or 50-50. Ask them to explain their thinking.

Challenge the students to do this activity and to keep track of how many tacks were leaners and how many lay flat on their tops each time they try it.

Use this activity to teach:

- how to use charts to simplify the organization and interpretation of data
- how to use multiple trials to look for patterns in results
- how to determine a greater degree of reliability in the results of an investigation
- how the results of one investigator are similar to and different from the aggregate results from the entire class
- how to plot results on a graph

Looking for an assessment that provide you with information on how well the students understood the concepts in this activity? Ask them to predict how many of the ten tacks will be leaners and how many will land flat - and then explain their prediction.

Have Your Voice Heard!

Your Opinion Matters

A province-wide consultation is being conducted this month (October 2009) by the Minister of Education's Working Group on the Elementary Curriculum to gather your perspectives and insights on Ontario's curriculum for grades 1 - 8, and about learning and teaching in Ontario's elementary schools.

GET INVOLVED in this discussion by downloading a copy of the Discussion Paper: Supporting Learning and Teaching in Ontario's Elementary Schools.

Then, provide your FEEDBACK on the discussion paper by completing the online survey.

For educators and stakeholder groups:
www.edu.gov.on.ca/eng/teachers/curriculum.html

Parents, community members, students and other educators are invited to use this Discussion Paper and the questions that follow to facilitate local discussions that may form for your response to the online survey. Please feel free to share the following links to the various surveys with your school community.

For parents, parent groups and community members:
www.edu.gov.on.ca/eng/parents/curriculum.html

For students and student groups:
www.edu.gov.on.ca/eng/students

For administrators:
www.edu.gov.on.ca/eng/policyfunding

The Discussion Paper and Surveys will be posted until November 4th, 2009.

More . . .

on Project Based Learning

Last month's newsletter featured some information on doing large-scale projects with students in the Junior Grades. It outlined how one teacher and her students used the skills they learned in class to help a local church reconstruct the records about a pioneer cemetery that had been lost in a fire. It mentioned how another class used the skills and information they learned in the grade five Social Studies unit on Government to lobby their town council to install a much needed stop sign on a nearby busy street.

A lot of teachers wrote in to say how much they enjoyed that information, and they asked for more.

So . . . on the next few pages we are pleased to provide you with two more descriptions of an exciting and interesting large-scale project that Junior Division teachers have done with their class.

You might want to refer back to your September newsletter for a description of how Project-based Learning works in a classroom. If you didn't get September's newsletter, just drop us a line and we will email a copy to you.

www.oaje@gecdsb.on.ca

SPIDER LADDERS

It was fund-raising season at our school. Typically, the School Council raised money through chocolate bar sales, cookie dough sales, Hallowe'en candy sales . . . none of it focused on nutrition or healthy lifestyles and none of it contributing to my instructional program.

I have a wonderful teaching friend from British Columbia. Brian Herrin is one of the most creative and engaging teachers I have ever had the pleasure of meeting and working with. He is able to captivate all students, young and old. Brian had once shown me something that his class had done as a fund raiser - spider ladders.

Have you ever come home or gotten up in the morning and gone into your bathroom only to discover a spider in your bathtub? Well, the spider didn't intend to startle you. Every home has spiders . . . if not, you have some other insects and creatures living there instead. Spiders need water. So, every once in a while the spider seeks out a source of water to drink. Your bathtub often has a handy ring of water that didn't completely drain when you or someone in your house last had a bath. The spider slides on down into your bathtub, drinks the water - but when she tries to climb out, the slippery side of the tub has her sliding back in. She is stuck there until you or someone else comes home and notices her problem.

This is where the spider ladder comes in. The spider ladder is simply two small plastic (or wooden) beads tied onto each end of a metre long piece of chenille (fuzzy) wool. That's it. To use the spider ladder you just lay it over the side of your bathtub so that any hapless spiders that wander into your tub have a handy way to climb out.

Once I explained what a spider ladder was to the kids in my class they saw the possibilities. We brainstormed what might need to be done if we were going to mass produce spider ladders. We needed some money to purchase our raw materials (wool, beads, plastic lunch bags), so we sold 'shares' in our spider ladder company for a dollar. We didn't need a lot of money to get started, so we only sold fifty shares - mainly to our Principal, other teachers and staff at the school.

The students worked for an hour each day for two weeks on the project. They were members of a team charged with a specific responsibility.

- some students handled the purchasing of materials and the money we earned on our sales

- some students did the 'manufacturing' of the spider ladders (assembling the parts into a sandwich bag)

- one group of students developed the instructions card and small "Bathroom Book of Spiders" we included with each ladder (the book contained spider jokes and little-known-facts about spiders)

- one group was charged with developing the marketing plan and the distribution of the spider ladders (local stores carried our spider ladders during the first two weeks of December)

from the workshop presentation "Learning That Lasts A Lifetime" by Rod Peturson

Our marketing team did a wonderful job of getting the word out about our 'unusual' product. Two local radio stations featured students explaining how the spider ladder worked. One of our television stations did a story about our project and filmed the students when they were manufacturing the spider ladders.

The group producing the small book included in the package and designing the paper insert that went into the sandwich bag with the spider ladder convinced the Principal to 'donate' the paper and photocopying they needed to do to produce enough packages.

Two parents volunteered to drive members of our distribution team around to the various businesses that had agreed to sell our product. The students quickly realized that we needed to create some sort of display for our product so the manufacturing group got busy creating a way to showcase our spider ladders in a decorated shoebox that sat on the sales counter. The purchasing group created 'model' spiders that would hang in some stores above our counter-top display.

In the end, we sold all five hundred spider ladder packages we created - in just two days!! The class decided that we needed to get into production again as the stores that were carrying the spider ladders were calling and asking for more. Since most of the 'up front' work had been done, it didn't take too many recesses and lunch times to make another five hundred spider ladders. We sold four hundred of these within the next two weeks. The final hundred were 'marked down' from our original asking price of $2.00 - to $1.00, and they quickly sold as well.

So, we started with an initial investment of $50.00. We repaid that investment on the basis of 200% per share - a total of $100.00. (our Principal was thrilled) After the expenses we had to produce the second batch of 500 spider ladders, we actually made a profit of $1 850.00. In the end, we learned a lot about setting up a business, doing a business plan, running a business, and dealing with the public . . . and - we saved a lot of spiders.