

Tips for middle school educators on various topics such as grammar, writing, reading, spelling, vocabulary, cooperative learning and more.

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Tip #80: Investigations

Spring semester usually finds many classes in the library for research papers. Most of us wait until this time of year because there are so many subskills involved with research writing. From the language arts teacher's point of view, research writing is one of the most difficult forms of writing to teach because of all of these prerequisite skills. So how can we help one another navigate through this genre?

Reports/Research Papers/Term Papers

- Choose relevant topics from science, social studies, and math to help provide authentic reasons for writing such a paper.
- Plan the unit as a team giving each teacher a piece of the total pie to teach. For example, the LA teacher can introduce note-taking, the social studies teacher can provide the necessary class time for creating note cards, and the science teacher can teach citations so students can keep a working bibliography.
- Keep a team calendar of who is doing what on which day. Take into consideration how much time the research project is taking and balance the homework load across all teachers.
 Coordination is the key.

- Shave off a few minutes from each class so that you can have a half hour common period at the end of your instructional block to address these research skills. This is a good time for each teacher on the team to meet with a consistent group of students to monitor their progress acting as mentors. Ask your counselor and sp. ed. collaborator to meet with an assigned group of students, too, to keep the mentoring numbers lower.
- Divide up rough drafts among all the mentoring teachers so the language arts teacher does not have to edit 120 papers. To make everyone comfortable with this role, use a team meeting to talk about how to give feedback to students on rough drafts. Take one student's paper and tackle it together. Calibrate yourselves. Try to come to some common understandings on how to help students through the revision process.

Inside Writing

I try to reference our standardized writing materials whenever possible because there is no need for you to reinvent the wheel. This resource binder has 2-week, stand-alone research units for grades 6 (teal), 7 (purple), and 8 (red). If you decide to do a team research project instead, still take a look at these units for mini-lesson ideas, rubrics, and models of student writing.



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Alternative forms of research

Developmentally many students are not ready to write lengthy research papers. However, the skills of researching can still be taught via other interesting products. An ABC book, a counting book, a newspaper are excellent forms of writing to showcase student research. Providing choice is important because many of our students come to us having done an ABC book on astronomy or a newspaper from the medieval ages. Those are the students who need to be coached into forms of writing they haven't tried before.

Investigations

Consider experimenting with smaller doses of research writing more frequently throughout the year. Australian teachers have used this approach for years. Students complete investigations several times during the year and continue doing so each year they go through the school system. This ongoing inquiry approach infuses research skills in a very natural way, reinforces the informational text structures that are problematic for our readers of non-fiction, and allows time for our students to develop areas of interest as they build upon their curiosity. In 1987, I was an exchange teacher to Melbourne, Australia, where I saw these investigations firsthand not only in my own school, but in every school visitation that I made. There is really nothing novel about the approach. It isn't even tricky to teach. It's simply a matter of embracing the philosophy. Carve out time for these ongoing, smaller dips into research.

What Does an Investigation Look Like?

Attached are several Investigations done by elementary students. Notice that the project size is limited, which automatically limits the scope of the research. All of these projects

are displayed on 12 x 18 construction paper. Even smaller projects can be completed using 8.5 x 11 paper.

What Are the Core Components?

- A double-page layout (Although there is a fold line in the middle, it is ignored.)
- A brief investigation into the topic (Yes, this is only a toe dip... This is not a report.)
- A conscious effort to use features of informational text such as pictures, captions, boldfaced terms, subtitles, charts, tables, diagrams, etc.
- The use of concise text to tell essential information

How Do I Get Started?

Your students need to be very familiar with the features of information text. (See Email Tip #8 for more ideas on this.) Can they easily brainstorm common text features such as those mentioned above?

Have students do a fast write about some of their personal interests. From this list, they should choose a topic for their investigation. Keep this list stapled into their binders for future investigations. Remember this approach is successful when teachers offer several opportunities a year to complete them. With each repeated practice, less direct teaching will be needed since the skills will become routine.

Show students how to plan an investigation. Do a think-aloud on a personal topic of interest to you. Use the overhead or butcher paper and sketch out what you might include in your investigation. The power behind this is students watching you go through the planning step. Don't just talk at them. Let



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them see you struggle with some of the decisions they will be making. One of my current personal interests is bathroom renovation. Ok, that probably wouldn't go over so well as a think aloud. I would lose the kids immediately. So instead I can choose another interest of mine, the Karmann Ghia. I tell students how I saw this car in a video and fell in love with its look. I even ordered a book through Amazon.com and was surprised at how many books were written about this obscure car.

From there I start laying out my design in front of my students talking aloud as I do this. I draw a dotted line down the center where the fold will go through the middle. I want them to see that this is meant to be a twopage spread. I think about one main illustration that might tie together my entire project. I do a rough sketch of a car across the two-page fold. I decide to place the title for my investigation near the top of my paper outside my sketch. I draw an empty rectangle and label it title. Near where the engine is located in the car, I draw a different sized rectangle and label it maintenance. If I do end up buying this kind of car, will I be able to get it repaired here in Anchorage? I draw in another rectangle inside the car sketch and label it dealers. I am wondering the cost of buying a Karmann Ghia and where I can buy one. This process continues until I have blocked out most of my space with subtopics of interest. I make sure I use as many different text features as I can. I decide I will find a picture and include a caption, I will include a map showing locations of the dealers, I will include a table that perhaps shows the annual cost of maintenance, etc.

Attached is a planning sheet from Linda Hoyt's book, Make It Real: Strategies for Success with Informational Texts. (Don't forget that you can check this out from the Literacy Lending Library.) Once students make their own plan, they need time to research. More modeling will be necessary showing them how to jot down notes, how to write ideas down in their own words, and how to keep proper records of their citations. Students need to be comfortable changing their subtopics if they find difficulty getting information. It is important for students to understand that research is a dynamic process. What they read in one magazine may cause them to formulate new questions.

How Do I Keep This a Short Project?

You want to be able to complete several investigations throughout the year, so it is important not to go into the same depth as you would a research paper. Giving students firm deadlines for completing notes, limiting the number of subtopics they research, and reducing the size of the final project paper all will help to keep the time reasonable in length. Many of your artistic students might get caught up in making the projects look "pretty." Although an attractive border might pull the entire piece together, using class time to draw little dinosaurs around a project is not good use of educational time. This can be done outside of school. Ask students to store their investigations in a personal notebook so they can reflect at the end of the year on the way they have changed as writers and researchers. Attached are assessment rubrics.



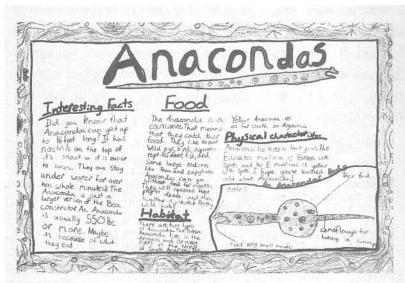


FIGURE 20.16

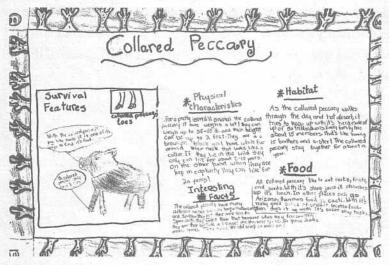


FIGURE 20.17 The third-grade Investigations.

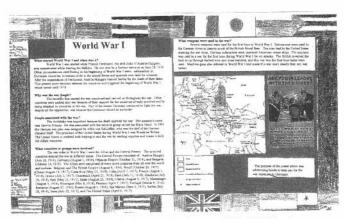


FIGURE 20.5 Grade 6 investigation on World War I.

Investigation Planning Sheet

The key points I w	vant to communicate are:
Some facts I want	to include:
	ll include (title, headings, captions, diagram, chart, close-photograph, drawing, labels, other)
A sketch of my In	vestigation:
6	

Investigation Rubric: Self-Assessment

Name				
Investigation Title				
Date				
Text Features	4	3	2	1
Title				
Interesting, catchy, exciting				
√ Bold print/color/fancy font				
Written Information				
Includes three different ideas				
Paraphrased information in own words				
Cursive, printed, or typed neatly				
√ Dictionary spelling				
Diagram/Map				
√ Labels/picture captions				
Titles or subheadings				
Goal for next investigation:				
What score would you give yourself for this investigation? Look at the criteria above and rate yourself on your overall performance.	4	3	2	1

Investigation Rubric: Self-Assessment (continued)

Resources used (title and author):					
1					
2					
3					
4					

Investigation Rubric

Score	Characteristics
4	√ Title, border, two types of written text, map, and diagram with text
	White space completely used
	Extensive use of color and different fonts
3	√ Title, border, written text, map, and diagram √ Minimal white space
	√ Balance of color and pencil work
2	√ Title, border, written text, map, or diagram √ Some white space remains √ Some color and pencil work
	v Some color and pench work
1-	√ Title, border, written text, map, or diagram