

New Teacher Induction Getting Started in Science

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Second Grade

Being A Successful Science Teacher

Effective planning, organization, preparation and management will enable success in science instruction.

- Know your science core
- Plan out your year
- Organize your materials
- Having great science lesson plans
- Know how to set up experiments
- Managing students during experiments
- Having good science books to read

What Are You Teaching?

- 2nd Grade

1. Earth and Space Science

1. Rocks,
2. Objects and patterns in the sky
3. Seasonal weather patterns

2. Physical Science

1. Falling objects
2. Materials responding to change

3. Life Science

1. Survival in the environment
2. Basic needs of living things

K-2 State Science Core Booklet

- A K-2 State Science Core Booklet was published for the teaching of the K-2 Science Core.
- For each objective, this booklet has the use of the Intended Learning Outcomes, Vocabulary, Lesson Ideas, and Technology and Engineering Integration.
- The K-2 State Science Core Booklet:
 - http://elemscience.jordandistrict.org/files/K-2-Science-Core-Curriculum_000.pdf
- A PowerPoint of how to use this booklet under the New Teacher Induction JSD Elem webpage:
 - <http://elemscience.jordandistrict.org/teachers/newteacher/>

Where Do I Get Lesson Plans?

- There are three ways to access the lesson plans:
- The 2nd Grade Science Lesson Plans are found on the New Teacher Induction page on the Elementary Science Website:
<http://elemscience.jordandistrict.org/teachers/newteacher/>
- For random lesson plans alphabetically for your grade of your science core:
<http://www.uen.org/k12educator/corelessonplans.shtml>
- For specific lesson plans for your grade in each individual standard and objective of your science core: <http://www.uen.org/core/>

Planning for the Year

- Your grade team will help you with the order you will teach science.
- Ask your mentor for suggestions
- Call Paul Nance (801-244-6479)

Organization

- Dedicate a file section for each standard
 - Some use hanging files
 - Some use 3-ring binders
- Dedicate a storage box/container for hands-on supplies for each standard

How Do I Make an Activity Happen?

- Have a question to answer
- Set up an experiment
 - Materials, Plan, Variables, Written Data
- Analyze that data
 - Graph and explanation of what happened
- Come up with a conclusion
 - Write-up of student thoughts of why the experiment did what it did with a real world connection

Managing Groups During Lab Work

- Practice group work before doing science
- Keep groups small (2-4) is best
- Assign each group member a job
- One member should be the leader
- Give specific and detailed instructions
- Model as much as possible
- Forecast and plan for “glitches”
- Use graphic organizers
- Always have enough time for clean-up
- Always stress safety

Rules During Lab Work

- Follow the directions
- Don't work ahead
- Everyone stays on task
- No talking within the group about other things
- No group member bothers a member of another group
- No goofing around
- Work on a timely basis--keep things going
- Students assigned to a certain task are the ones who do that task
- Keep it safe all the time--no exceptions

Safety First!

- Safety First - ALWAYS!
- Be aware of dangers
- Plan to avoid them
- Keep expectations high and firm
- Be consistent with consequences

Journaling Ideas

- Have students use a journal as much as possible when doing experiments
- Use of journal during an experiment:
 - Writing down measurable data
 - Explaining what they saw happen
 - Making a graph
 - Explaining their thoughts on why it happened
 - Writing a conclusion

Videos

- Research has shown educational media used correctly can be an effective instructional tool and help close the achievement gap.
- Use ONLY for reinforcement and review
- Don't overuse ~ once every one or two weeks is good

2nd Grade Science and Literacy

Each primary grade has science literacy books that can be used during the literacy block for shared reading and shared reading during science time. Your grade colleagues can help you know which books are the best to use for science literacy.

2nd Grade Science and Literacy

- Science not only needs to be read about, it also needs experimental investigation. You can set up your science standards in any order that you would like. During science investigation time you can watch science videos, do experiments, have discussions, and do journaling.
- Try to do science investigations as much as you can every week. Hopefully you will be able to find at least once or many twice a week for science. If you do it at least once a week, you will go through all your science core standards.

Science Specialist Help

- Paul Nance can do the following with a scheduled appointment:
 - Individual or or grade team help to discuss the science order.
 - How to teach science concepts
 - Understanding science concepts
 - Strategy ideas for teaching science
 - Do model teaching of the activities
 - Act as a mentor to improve your teaching
 - Help in your classrooms (during science)
 - Meet in your PLCs.

First Week Science Activities

There are 5 science activities that you can do the first week of school:

- A fun PowerPoint to show (Introduction to Science)
- 2 Literacy Lessons
- 2 Content Lessons

<http://elemscience.jordandistrict.org/teachers/newteacher/>

- They are found at the bottom of the webpage.

This PowerPoint is also found on the Elementary Webpage under: Getting Started at the bottom of the New Teacher Induction webpage.

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Have Fun!

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