

# Home Scientists

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Dear Scientists and their Parents,

You have been working with SCIENTIFIC METHOD in our “Matter” unit for the past few months. We have written out experiments as a class, in partners and with me doing the first few scientific method writings for you as a model.

Now you are ready to become a scientist on your own!

You will choose a science experiment to demonstrate your learning of both matter and scientific method to do at home. You will write up all the steps of a proper experiment, conduct your experiment at home first and then bring in your experiment to present to your fellow scientists.

**You will create a Bristol board display of your scientific method steps and the materials needed for your presentation.**

You will present your project starting in the second week of December (Dec. 9 – 13).

Success Criteria:

I can....

- ✓ Show my learning of the states of matter by choosing an experiment that shows either a physical change or a chemical change.
- ✓ Show my learning of scientific method by making sure I have all 5 steps written for my project. The 5 steps are: Question, Hypothesis, Procedure, Results, Conclusion
- ✓ Create a Bristol board display of my project using my best efforts. I can use the computer to print my work or I can hand draw my work.
- ✓ Present my experiment to the class by having all my materials ready on the due date.

On the back of this sheet are possible experiments to conduct. You may create an experiment of your own – please make sure it is a “states of matter” experiment and that you have checked it out with me.

Parents please review your child’s choice of experiment and initial the back to indicate you have read this.

Thank you for your support.

M. Honan

# Possible Experiments:

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- Demonstrate the three states of matter by making Jell-O
- What freezes faster? Hot water or cold water?
- Try mixing various solids with liquids to see if they dissolve or not. Examples of solids are: salt, sugar, marbles, pebbles, etc.
- Compare the density of various liquids by dropping a marble into equal cups of water, oil, honey, dish soap, etc. See how long it takes the marble to sink in each liquid.
- Test the density of liquids by mixing together various liquids to see if they dissolve or float on top of each other. (e.g. water and oil, water and milk)
- Make “Goop” by mixing cornstarch and water. You will test how it acts like both a solid and a liquid.
- Is it physical or chemical? Place a raw egg into a glass jar. Pour enough vinegar to cover completely. Observe what happens over the next couple of days.
- Is it physical or chemical? Make a volcano by mixing baking soda, vinegar and a few drops of dish soap (and even a little food colouring). What happens?
- Is it physical or chemical? What happens when you bleach an old dark fabric?
- Is it physical or chemical? Make a CO<sub>2</sub> balloon. (Look this up online for instructions).
- Your own idea.

A great resource for finding experiments that have to do with Matter is looking in any “Dr. Zed’s” books about science activities.

Have Fun!

☐ I have discussed this project with my child and I agree with his/her experiment choice.

Parent initials: \_\_\_\_\_