

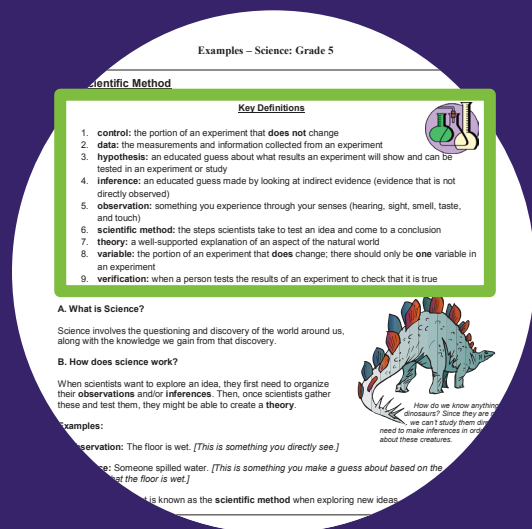


5th Grade Science

Enrichment Academies Curriculum Sample

A Grade Ahead's rigorous, 6-month science enrichment program is designed to challenge your child to a higher academic standard. Our monthly curriculum includes science concepts that your child will see in school. Your child will learn and apply science concepts to real-world situations through experiments and develop strong critical thinking and analytical skills.

Each week will have an in-depth **lesson** (which we call Examples) or **experiment**, **homework**, and **answers**. In these next pages, we offer a closer look at what our examples, experiments, homework, and answers offer as well as a specific sample of each.



Key Definitions

Key Definitions are available so that your child can easily find the important concepts of the week.



Lesson or experiment pages are titled "Examples – Science: Grade 5," answer pages are titled "Answers – Science: Grade 5," and homework pages are simply titled "Science: Grade 5."

Examples – Science: Grade 5

Scientific Method – Continued: Scientific Set-Up!

Objective: For this experiment, students will work with partners to use observations about bouncy balls to make inferences. They will then use these inferences to develop a hypotheses about how size affects bounciness.

Supplies Needed (Per Student):

- measuring spoons – at least ½ teaspoon and tablespoon (students can share)
- 2 plastic cups able to at least 1 cup of liquid
- 2 tablespoons of water
- ½ teaspoon of borax
- 2 mixing sticks
- 1 tablespoon of cornstarch
- 1 tablespoon of glue
- 2-3 drops of food coloring (any color) - (can have 1-2 bottle(s) total for students to share)
- 1 plastic knife (per pair of students)
- 1 pair of gloves

Experiment:

Part 1: Students will work individually.

1. In one of the plastic cups, add 2 tablespoons of water and ½ teaspoon of borax. Use one of the mixing sticks to mix the solution until it is completely dissolved. See Figure 1.

In the second plastic cup, add 1 tablespoon of cornstarch and 1 tablespoon of glue. Carefully, add 2-3 drops of food coloring. Use the second mixing stick to mix the solution until well blended. See Figure 2.

Pour the borax mixture into the glue mixture. Let the solution sit for 15 minutes.

Use the mixing sticks to mix the solution until it forms a solid blob. Lift the blob behind in the cup.





Figure 1



Experiment

The 2nd and 4th weeks of each month will contain an experiment in the examples so that your child can apply concepts from the lesson to everyday life.

Examples – Science: Grade 5

Scientific Method – Continued: Scientific Set-Up!

Objective: For this experiment, students will work with partners to use observations about bouncy balls to make inferences. They will then use these inferences to develop a hypotheses about how size affects bounciness.

Supplies Needed (Per Student):

- measuring spoons – at least ½ teaspoon and tablespoon (students can share)
- 2 plastic cups able to at least 1 cup of liquid
- 2 tablespoons of water
- ½ teaspoon of borax
- 2 mixing sticks
- 1 tablespoon of cornstarch
- 1 tablespoon of glue
- 2-3 drops of food coloring (any color) - (can have 1-2 bottle(s) total for students to share)
- 1 plastic knife (per pair of students)
- 1 pair of gloves

Experiment:

Part 1: Students will work individually.

1. In one of the plastic cups, add 2 tablespoons of water and ½ teaspoon of borax. Use one of the mixing sticks to mix the solution until it is completely dissolved. See Figure 1.

In the second plastic cup, add 1 tablespoon of cornstarch and 1 tablespoon of glue. Carefully, add 2-3 drops of food coloring. Use the second mixing stick to mix the solution until well blended. See Figure 2.

Pour the borax mixture into the glue mixture. Let the solution sit for 15 minutes.

Use the mixing sticks to mix the solution until it forms a solid blob. Lift the blob behind in the cup.





Figure 1

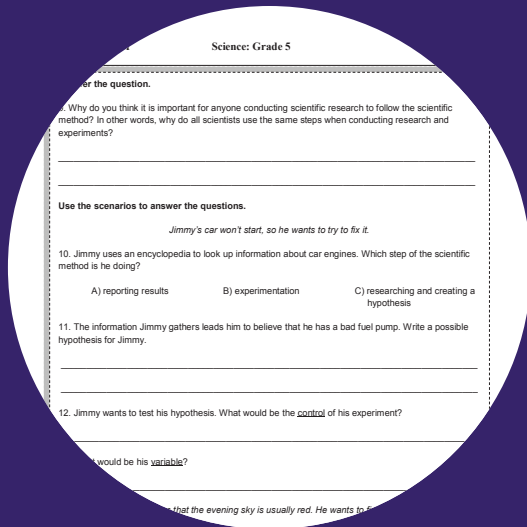


Supplies

All supplies your student will need to complete the experiment will be provided in the classroom

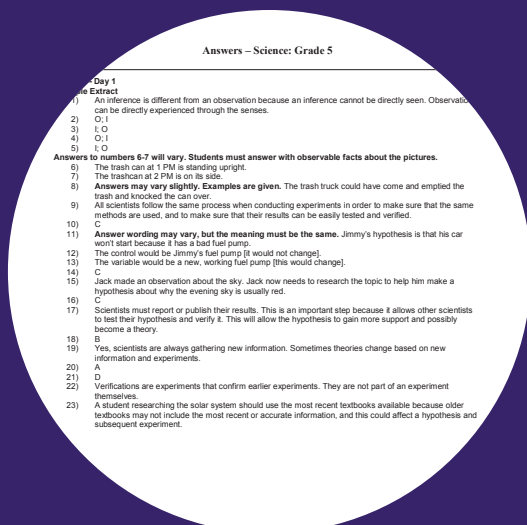


Each day's homework usually takes about 30 minutes to complete.



Homework

The rest of the homework works on your child's understanding of the specific topics that week. This will be through comprehension, critical thinking questions, and vocabulary exercises.



Answers

Answers are provided to check your child's homework and note which areas may need more work.