



185+ Awesome 4th Grade Science Fair Project Ideas

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Find fun and easy 4th grade science fair project ideas! Simple experiments and activities to help you learn and impress your teachers and classmates.

Need some fun ideas for your 4th-grade science fair project? There are lots of easy experiments you can try! You can make a volcano erupt, see how plants grow, or test magnets. You could also explore how water works, how crystals form, or experiment with floating objects.

These projects are simple and fun, and they'll help you learn more about science. Let's go!

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Choosing the Right Project

Choosing the right project for your science fair is important! Here's how to pick a good one:

| Tip | Description |
|--------------------------------|--|
| Pick something you like | Choose a topic you think is cool, like animals or plants. |
| Keep it simple | Pick a project that's easy to do and doesn't need lots of stuff. |

| Tip | Description |
|-------------------------|---|
| Think about time | Choose a project you can finish in the time you have. |
| Ask for help | If you need ideas, ask a teacher or parent. |
| Have fun | Pick something fun, and you'll enjoy working on it! |

4th Grade Science Fair Project Ideas

Here are some of the best 4th grade science fair project ideas:

4th Grade Science Fair Project Ideas on Plants and Growth

1. Grow plants in different lights.
2. Test how water affects plant growth.
3. Compare plant growth in different soils.
4. Water plants with different liquids.
5. See how temperature affects plants.
6. Grow plants under different colors of light.
7. Test how much plants grow in a week.
8. Water plants at different times.
9. Use different fertilizers and see the effects.
10. Compare how big and small seeds grow.

4th Grade Science Fair Project Ideas on Weather

1. Measure rainfall with a homemade rain gauge.
2. Make a cloud in a jar.
3. See how wind affects objects.
4. Measure temperatures in the sun and shade.
5. Watch how water evaporates in sunlight.
6. Test how fast ice melts.
7. Build a thermometer.

8. Compare rainwater and tap water on plants.
9. See how frost forms.
10. Study how storms happen.

4th Grade Science Fair Project Ideas on Animals

1. Test what food your pet likes best.
2. Watch ants in an ant farm.
3. Measure how much fish swim.
4. Test how animals react to light.
5. Track animal footprints outside.
6. See how pets play with toys.
7. Watch insects eat.
8. Make a bird feeder and see which birds visit.
9. Count animals in your backyard.
10. Watch how pets react to new things.

4th Grade Science Fair Project Ideas on the Human Body

1. Measure your heart rate before and after running.
2. Count your breaths after running.
3. Test how stretching helps flexibility.
4. Test how sugar affects energy.
5. Measure how sleep affects mood.
6. Track your strength after exercise.
7. Test your balance by standing on one foot.
8. Measure body temperature in different places.
9. Test how food affects concentration.
10. Track how exercise affects reflexes.

4th Grade Science Fair Project Ideas on Simple Machines

1. Test how objects roll on different slopes.
2. See how pulleys lift things.
3. Test how levers help lift objects.
4. See how wheels move objects easier.

5. Test how wedges split things.
6. Measure how friction slows objects.
7. Test how inclined planes move things.
8. Try using screws and measure how they work.
9. See how magnets move objects.
10. Lift things using pulleys and measure effort.

4th Grade Science Fair Project Ideas on Chemical Reactions

1. Mix baking soda and vinegar and watch it fizz.
2. See what happens when you mix milk and vinegar.
3. Test how lemon and baking soda react.
4. See how salt speeds up ice melting.
5. Watch sugar melt in a pan.
6. Test how water turns into steam.
7. Mix different liquids and see the color change.
8. Heat different materials and see how they change.
9. Inflate a balloon using a chemical reaction.
10. See how things burn differently.

4th Grade Science Fair Project Ideas on Forces and Motion

1. Drop objects and see which hits the ground first.
2. Test how objects move on different surfaces.
3. See how high different balls bounce.
4. Measure how fast objects roll down ramps.
5. Test how much force it takes to push things.
6. See how weight affects how fast things fall.
7. See how magnets pull or push objects.
8. Test how air resistance slows down objects.
9. Measure how long things stay balanced.
10. Test how pulleys lift things.

See also [189+ reMarkable Agriculture Projects for Students](#)

4th Grade Science Fair Project Ideas on Electricity

1. Build a simple circuit to light a bulb.
2. Test how different batteries work in a circuit.
3. See which wires conduct electricity best.
4. Power a light with a piece of fruit.
5. Make static electricity with a balloon.
6. See how magnets work with electricity.
7. Light up a room using solar power.
8. Test how a switch works in a circuit.
9. See how voltage affects a light bulb.
10. Test how electricity creates heat.

4th Grade Science Fair Project Ideas on Sound

1. Measure the loudness of different sounds.
2. Test how the length of a string affects sound pitch.
3. Make a cup phone and see how sound travels.
4. Test how sound bounces off walls.
5. Build a simple musical instrument and measure sound.
6. Measure sound at different distances.
7. See how sound makes objects vibrate.
8. Test how materials block sound.
9. Use a bottle to see how air changes sound.
10. Test how a tuning fork makes sound.

4th Grade Science Fair Project Ideas on Water

1. See how water evaporates in the sun.
2. Test how different liquids freeze.
3. Measure how liquids flow.
4. Test how water helps plants grow.
5. See which liquids are denser.
6. Test how salt and fresh water freeze differently.
7. See how much water soil can absorb.
8. Watch how water moves through soil.
9. Test how water flows through a straw.
10. Compare how cold and warm water affect objects.

4th Grade Science Fair Project Ideas on Solar Energy

1. Measure how much heat a solar panel collects.
2. Test how sunlight changes temperature.
3. Use a magnifying glass to focus sunlight.
4. Cook food with a solar oven.
5. Compare how materials react to heat.
6. Measure shadows at different times of the day.
7. See how heat affects ice melting speed.
8. Test how solar panels power objects.
9. Test how materials absorb sunlight.
10. See how much sunlight makes a plant grow.

4th Grade Science Fair Project Ideas on Recycling

1. Compare waste in a landfill and recycling.
2. See how long materials take to decompose.
3. Make a compost pile and watch it change.
4. See how recycling helps the environment.
5. Test how recycling saves water.
6. Measure how much energy recycling saves.
7. See how recycling reduces pollution.
8. Test how biodegradable items break down.
9. Compare reusable and disposable items.
10. See how recycled paper compares to regular paper.

4th Grade Science Fair Project Ideas on Light

1. See how light bounces off different materials.
2. Test how light bends through water.
3. Measure how colors of light affect plant growth.
4. Make a simple microscope.
5. Test how mirrors reflect light.
6. See how lenses change light.
7. Study how shadows change throughout the day.
8. See how light passes through a glass of water.
9. Test how light travels through materials.
10. Make a rainbow with sunlight and water.

4th Grade Science Fair Project Ideas on Magnetism

1. See which metals magnets stick to.
2. Build a simple electromagnet.
3. Test how distance affects magnet strength.
4. See what materials magnets attract.
5. Make a compass and see if it works.
6. Watch how magnets push and pull objects.
7. Study how magnetic fields work.
8. Test how magnets affect electric currents.
9. Build a magnetic crane to move objects.
10. Compare different magnet strengths.

4th Grade Science Fair Project Ideas on Ecosystems

1. Make a simple food chain model.
2. See how energy moves in an ecosystem.
3. Watch how predators and prey interact.
4. Test how light affects plant growth in ecosystems.
5. See how animals in an ecosystem work together.
6. Study how ecosystems support different species.
7. See how climate change affects ecosystems.
8. Test how pollution affects food chains.
9. See how certain plants become invasive.
10. Study the importance of animals in an ecosystem.

4th Grade Science Fair Project Ideas on Nutrition

1. Test how food affects energy.
2. Compare the nutrition in different snacks.
3. See how water affects your energy.
4. Test how exercise changes your hunger.
5. See how long it takes to digest food.
6. Compare how healthy foods help you focus.
7. Test how snacks affect your brain.
8. See how sugar affects your energy.
9. Test how vitamins in fruit help your body.
10. See how different foods affect your mood.

4th Grade Science Fair Project Ideas on Space

1. Make a model of the solar system.
2. Watch the moon change phases.
3. See how planets orbit the sun.
4. Build a simple telescope and watch stars.
5. Measure the size of shadows during the day.
6. Watch constellations move.
7. Learn how craters are made on the moon.
8. Study how Earth rotates.
9. Measure Earth's rotation speed with a pendulum.
10. See how the atmosphere changes in space.

4th Grade Science Fair Project Ideas on Oceans

1. Make an ocean ecosystem in a jar.
2. Test how saltwater affects plants.
3. Study the properties of ocean water.
4. Measure how long waves take to reach shore.
5. Test how ocean currents move in water.
6. Watch how ocean animals adapt to their environment.
7. Learn how fish breathe underwater.
8. Study how temperature affects marine life.
9. Test how pollution harms marine life.
10. See how ocean depths affect life.

See also [99+ Innovative Plant Cell Project Ideas](#)

4th Grade Science Fair Project Ideas on Chemical Reactions

1. Mix baking soda and vinegar to make bubbles.
2. Test how vinegar reacts with milk.
3. See how sugar melts in heat.
4. Test how water turns to steam.
5. Watch a balloon inflate with a reaction.
6. See what happens when you burn things.

7. Watch how liquids change color when mixed.
8. Test how salt speeds up ice melting.
9. See how heat changes metals.
10. Test how lemon juice reacts with baking soda.

4th Grade Science Fair Project Ideas on Environmental Science

1. Watch how weather affects plants.
2. Test how pollution harms the environment.
3. See how **deforestation** affects animals.
4. Study how recycling helps the Earth.
5. Test how farming affects resources.
6. Study the effects of climate change.
7. See how energy affects the Earth.
8. Test how trees help clean the air.
9. Study the Earth's resources.
10. See how ocean pollution harms the environment.

Conducting Experiments

Conducting experiments is fun! Here's how to do it:

Plan your experiment

- Decide what you want to test.
- Write down the steps.

Gather your materials

- Make a list of everything you need.
- Check if you have all the items.

Follow the steps

- Do each step carefully.
- Stay organized.

Record your results

- Write down what happens.
- Draw pictures if needed.

Repeat if needed

- Try again if something goes wrong.
- Do the experiment a few times.

Look at your results

- See what you learned.
- Look for patterns.

Be safe

- Use safety gear if needed.
- Ask for help with tools or chemicals.

Data Collection and Analysis

Data collection and analysis help you understand your experiment. Here's how to do it:

Collect your data

- Write down everything you see or measure.
- Use tools like rulers or timers if needed.

Organize your data

- Keep your notes neat.
- Use charts or tables to show your data.

Look for patterns

- See if anything repeats or stands out.

Compare your results

- Check if your data matches what you expected.

Make conclusions

- Think about what your data tells you.

Use visuals

- Draw simple graphs or charts to show your results.

Be honest

- Write down all results, even if they weren't what you expected.

Presentation Tips

Here are some easy tips for a great presentation:

Be Clear

- Use simple words.
- Speak slowly and clearly.

Practice

- Practice before you present.
- Try practicing in front of a friend.

Use Visuals

- Show pictures or charts to explain things.
- Keep them simple and easy to see.

Stay Organized

- Start, middle, and end: Keep it in order.

- Keep your slides or posters neat.

Engage Your Audience

- Look at the people you're speaking to.
- Ask simple questions to get them involved.

Stay Confident

- Stand tall and speak with confidence.
- If you make a mistake, just keep going!

Keep It Simple

- Use easy words and short sentences.

Show Excitement

- Be excited about your project—it'll make your audience interested!

Parental Involvement

Here are simple ways parents can help with your science fair project:

Provide Support

- Help you choose a project that interests you.
- Encourage you to stay on track and be organized.

Assist with Materials

- Help gather supplies you might need for the experiment.
- Offer to help with hard-to-find materials.

Offer Guidance

- Guide you in understanding the steps of the project.
- Help you stay focused on the experiment.

Review Your Work

- Look over your project and give feedback.
- Help you practice presenting your project.

Encourage Creativity

- Suggest fun ideas for your experiment or presentation.
- Help you think of ways to make your project unique.

Stay Positive

- Keep a positive attitude and motivate you when you feel stuck.
- Celebrate your progress and effort!

Common Challenges and Solutions

Here are some common problems and simple solutions for your science fair project:

| Problem | Solution |
|--|--|
| Don't know what project to choose | Pick something you like. Ask for ideas from your teacher or parents. |
| Running out of time | Make a schedule and do a little bit each day. |
| Missing materials | Check around your house or ask your parents for help. |
| Experiment not working | Try to figure out what went wrong and try again. Ask for help if needed. |
| Nervous about presenting | Practice in front of family or a mirror. Take deep breaths. |
| Forgetting important details | Write down key points you want to say. Make a checklist. |

| Problem | Solution |
|----------------------------------|--|
| Confusing results or data | Organize your data clearly. Use pictures or charts. |
| Not enough help | Ask your teacher or parents for guidance when you need it. |

Inspiring Curiosity

Here are simple ways to get curious for your science fair project:

See also [222+ Cool Science Project Ideas For 4th Grade](#)

| Tip | Description |
|----------------------------------|--|
| Ask Questions | Ask “Why?” or “How?” to learn more. |
| Explore Ideas | Look around and think about how things work. |
| Pick Fun Topics | Choose something you enjoy, like animals or space. |
| Do Experiments | Hands-on experiments help you learn and have fun. |
| Talk About What You Learn | Share your discoveries with family and friends. |
| Use Cool Tools | Try different materials to see what happens. |
| Keep Trying | Don’t be afraid to experiment and find new things. |

4th Grade Science Fair Project Ideas Using Scientific Method

Here are some super simple 4th grade science fair project ideas:

Plant Growth and Light

- **Question:** Does sunlight help plants grow?
- **Hypothesis:** Plants with sunlight will grow better.
- **Experiment:** Grow plants in sunlight and shade. Measure how tall they grow.
- **Conclusion:** Which plants grew taller?

Water Evaporation

- **Question:** Does heat make water disappear faster?
- **Hypothesis:** Water will disappear faster in heat.
- **Experiment:** Put water in two cups—one in the sun, one in the shade. Check each day.
- **Conclusion:** Which water disappeared faster?

Floating and Sinking

- **Question:** Do different shapes float or sink?
- **Hypothesis:** Flat shapes float, round ones sink.
- **Experiment:** Drop different things in water. See if they float or sink.
- **Conclusion:** Which things floated?

Ball Bounce

- **Question:** Does a warm ball bounce higher?
- **Hypothesis:** A warm ball will bounce higher.
- **Experiment:** Freeze one ball, leave another at room temperature. Drop them.
- **Conclusion:** Which ball bounced higher?

Magnet Strength

- **Question:** How close does a magnet need to be to pick up things?
- **Hypothesis:** A magnet picks up more things when it's close.
- **Experiment:** Test how many paper clips a magnet picks up at different distances.

- **Conclusion:** How did distance change how many paper clips were picked up?

4th Grade Science Fair Project Ideas Using Scientific Method Math

Here are some super simple 4th grade science fair ideas with math:

Ice Cubes Melting

- **Question:** Does ice melt faster in heat?
- **Hypothesis:** Ice melts faster in a warm room.
- **Experiment:** Put ice in a warm and cold room. Time how long it melts.
- **Conclusion:** Which ice melted faster?

Which Shape Holds More Water?

- **Question:** Which holds more water: square or circle?
- **Hypothesis:** The circle holds more.
- **Experiment:** Fill square and circle containers with water. Measure.
- **Conclusion:** Which shape held more?

Plant Growth

- **Question:** How much does a plant grow each day?
- **Hypothesis:** The plant grows a little each day.
- **Experiment:** Measure the plant each day.
- **Conclusion:** How much did it grow?

Hot vs. Cold Water

- **Question:** Does hot water dissolve sugar faster than cold water?
- **Hypothesis:** Hot water dissolves sugar faster.
- **Experiment:** Put sugar in hot and cold water. Time how long it dissolves.
- **Conclusion:** Which water dissolved the sugar faster?

Which Paper Soaks Up More Water?

- **Question:** Which paper soaks up more water: tissue or paper towel?

- **Hypothesis:** Paper towels soak up more.
- **Experiment:** Put paper in water and see how much it soaks.
- **Conclusion:** Which paper soaked up more?

These are very simple ideas!

4th Grade Science Fair Project Ideas for Free

Here are some really simple, free 4th grade science fair ideas:

Does Salt Water Freeze Faster?

Experiment: Freeze regular water and salt water. See which freezes first.

Which Paper Towel Is Stronger?

Experiment: See how many pennies each paper towel can hold.

How Does the Ramp Angle Affect Speed?

Experiment: Roll a ball down ramps at different angles. See which one goes fastest.

Which Fruit Ripens Faster?

Experiment: Put different fruits in a bowl and check which ripens first.

Does Music Help Plants Grow?

Experiment: Play music for one plant and no music for another. See which grows more.

These ideas are quick and easy!

4th Grade Science Fair Project Ideas Biology

Here are super simple biology project ideas for 4th grade:

Do Plants Like Light?

- **Question:** Do plants grow better with light?
- **Experiment:** Grow plants in light and dark. See which grows more.
- **Conclusion:** Which plant grew more?

How Do Plants Drink?

- **Question:** How do plants drink water?
- **Experiment:** Put flowers in colored water and watch.
- **Conclusion:** What happened to the flowers?

Which Soil Is Best for Plants?

- **Question:** Which soil helps plants grow best?
- **Experiment:** Plant seeds in different soils and see which grows.
- **Conclusion:** Which soil worked best?

What Liquid Helps Plants Grow?

- **Question:** Do plants grow better with water or juice?
- **Experiment:** Water plants with water or juice and see which grows better.
- **Conclusion:** Which liquid helped the plant grow?

What Food Do Ants Like?

- **Question:** What food do ants like best?
- **Experiment:** Put different foods near ants and see which one they eat.
- **Conclusion:** What food did the ants like?

These ideas are really easy and fun!

4th Grade Science Fair Projects With Plants

Here are super simple plant project ideas:

Does Light Help Plants Grow?

- **Question:** Do plants grow better with light?
- **Experiment:** Grow one plant in light, one in dark. See which grows better.

How Do Plants Drink Water?

- **Question:** How do plants drink water?
- **Experiment:** Put flowers in colored water. Watch them change.

Which Soil Is Best for Plants?

- **Question:** Which soil helps plants grow?
- **Experiment:** Plant seeds in different soils. See which grows best.

What Water Helps Plants Grow?

- **Question:** Do plants grow better with tap or rainwater?
- **Experiment:** Water plants with both. See which grows best.

How Does Temperature Affect Plants?

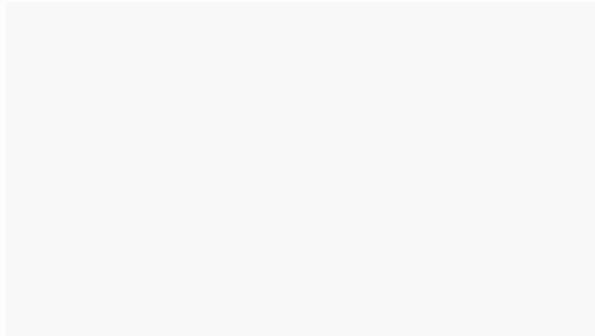
- **Question:** Do plants grow better in warm or cold?
- **Experiment:** Grow plants in warm and cold. See which grows best.

Conclusion

In conclusion, these 4th grade science fair project ideas are a great way to learn and have fun. Each project helps you explore different science topics, like how light affects plant growth or how plants drink water. You will practice the scientific method by asking questions, making guesses, testing ideas, and seeing what happens.

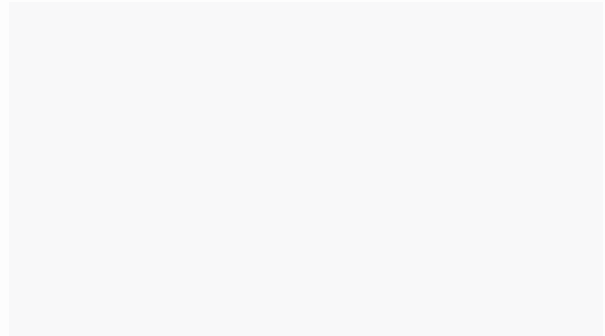
These projects help you think critically and get creative while learning new things. They are easy to do with simple materials, so you can enjoy the process and learn at the same time. Choose one of these ideas, have fun, and see what you discover!

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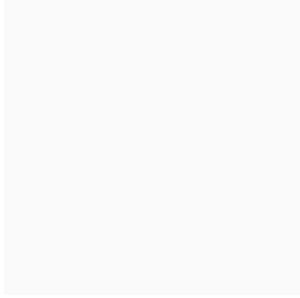
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