



222+ Impressive Science Fair Project Ideas for 8th Grade

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Find simple and fun science fair project ideas for 8th grade. Explore easy projects in biology, chemistry, physics, and more!

Looking for easy and fun science fair project ideas for 8th grade? Science fairs are a great way to learn about cool topics like plants, the human body, or technology.

There are lots of simple ideas to try! Whether you're interested in how plants grow, how the body works, or fun tech experiments, you'll find something awesome. Let's pick a great project for you!

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Choosing a Project

Here are some easy tips for picking a science fair project:

Tips for Choosing a Science Pro	oiect	
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Explanation

Pick something you like	Choose a topic that interests you.
Keep it simple	Pick a project that's easy to do.
Make sure you can test it	Choose something you can experiment with.
Ask for help	Ask a teacher or parent if you need advice.
Use what you have	Pick a project with materials you already have.
Pick something safe	Make sure your project is safe to do.
Check the time	Choose a project you can finish in the time you have.

Science Fair Project Ideas for 8th Grade

Here are some of the best science fair project ideas for 8th grade:

Biology Projects

- 1. How light affects plant growth.
- 2. Which soil helps plants grow best?
- 3. Does music help plants grow?
- 4. How salt affects plant growth.
- 5. How sugar affects yeast.
- 6. How water affects plant growth.
- 7. How temperature affects plant breathing.
- 8. Which fertilizer helps plants grow?
- 9. How soil type affects worms.
- 10. How light color affects plants.

Physics Projects

- 1. Which material keeps things warm?
- 2. How the shape of a plane affects flight.
- 3. How temperature changes reactions.
- 4. Which liquid melts ice the fastest?
- 5. How the angle of a ramp affects speed.
- 6. How air pressure affects balloons.
- 7. How wheel size affects car speed.
- 8. Best angle for launching a rocket.
- 9. How weight affects falling speed.
- 10. Which paper airplane flies the farthest?

Chemistry Projects

- 1. How pH affects plant growth.
- 2. Does sugar speed up reactions?
- 3. Which soap cleans better?
- 4. How baking soda makes a balloon grow.

- 5. How acids affect rust.
- 6. How salt changes water freezing.
- 7. Which liquid melts ice faster?
- 8. How salt affects boiling water.
- 9. Organic vs. chemical fertilizers.
- 10. How temperature affects dissolving.

Environmental Science Projects

- 1. Which water filter works best?
- 2. How pollution affects plants.
- 3. What's the best way to recycle paper?
- 4. How oil spills hurt water.
- 5. Which renewable energy is best?
- 6. How acid rain hurts plants.
- 7. How water pollution affects animals.
- 8. Best biodegradable material.
- 9. How cities affect wildlife.
- 10. How to reduce plastic waste.

Behavioral Science Projects

- 1. Does color affect memory?
- 2. How stress affects speed.
- 3. How temperature changes moods.
- 4. Which music helps focus?
- 5. How attitude affects performance.
- 6. Do video games improve focus?
- 7. How time of day affects memory.
- 8. How peer pressure influences choices.
- 9. How exercise changes mood.
- 10. Does writing things down improve memory?

Engineering & Technology Projects

- 1. Which bridge design holds the most weight?
- 2. How wind turbines make energy.
- 3. How battery size affects power.

- 4. Which material makes the best parachute?
- 5. How solar panels make energy.
- 6. Which rocket flies best?
- 7. How pulley gears affect speed.
- 8. Which engine is best for model cars?
- 9. How boat shape affects speed.
- 10. Which thermos keeps things cold?

Health & Medicine Projects

- 1. How exercise affects heart rate.
- 2. How sugar affects your body.
- 3. How sleeping with lights on affects sleep.
- 4. How stress affects heart rate.
- 5. How drinking water helps focus.
- 6. How caffeine affects heart rate.
- 7. How sleeping positions affect sleep.
- 8. How breakfast affects school performance.
- 9. How sleep affects reaction time.
- 10. How food affects energy levels.

Astronomy Projects

- 1. How distance from the sun affects heat.
- 2. How moon phases affect tides.
- 3. Why is the sky blue?
- 4. How light pollution affects stargazing.
- 5. How telescopes work.
- 6. How Earth's orbit affects days.
- 7. Inner vs. outer planets.
- 8. Comets vs. asteroids.
- 9. How Earth's tilt affects seasons.
- 10. How solar flares affect Earth.

Food Science Projects

- 1. Which fruit has the most vitamin C?
- 2. How cooking affects food taste.

- 3. How cooking time affects nutrients.
- 4. Which food freezes best?
- 5. Which milk froths best for coffee?
- 6. How baking time affects bread.
- 7. Does soaking vegetables change nutrients?
- 8. How salt changes food taste.
- 9. How refrigeration affects fruit.
- 10. Best way to store fresh herbs.

Sports Science Projects

- 1. Which shoe gives the most grip?
- 2. How the angle of a basketball hoop affects shots.
- 3. How bat size affects speed.
- 4. How to improve reaction time in sports.
- 5. Does stretching prevent injuries?
- 6. How shoes affect running speed.
- 7. How soccer balls bounce.
- 8. How body temperature affects performance.
- 9. Which water bottle keeps water cold longest?
- 10. How hydration affects sports.

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Psychology Projects

- 1. How color affects mood.
- 2. How music affects study focus.
- 3. How stress affects memory.
- 4. How laughter affects happiness.
- 5. How rewards affect behavior.
- 6. How emotions affect decision-making.
- 7. How personality affects group work.
- 8. How sleep affects mood.
- 9. How age affects memory.
- 10. How different smells affect emotions.

Marine Biology Projects

- 1. How water temperature affects fish.
- 2. How pollution affects coral reefs.
- 3. How saltwater affects plant growth.
- 4. How tides affect sea animals.
- 5. How oil spills affect marine life.
- 6. Which water is best for sea creatures?
- 7. How waves affect shorelines.
- 8. How plastic waste affects ocean life.
- 9. How ocean currents affect fish migration.
- 10. How noise pollution affects marine animals.

Geology Projects

- 1. How water affects rock erosion.
- 2. How volcanoes form.
- 3. How earthquakes change the ground.
- 4. How different rocks react to heat.
- 5. How landslides happen.
- 6. How glaciers shape the land.
- 7. How weathering affects rocks.
- 8. How caves form.
- 9. How plants help prevent soil erosion.
- 10. How minerals are found in rocks.

Meteorology Projects

- 1. How clouds form.
- 2. How wind affects temperature.
- 3. How humidity affects weather.
- 4. How temperature affects evaporation.
- 5 How tornadoes form
- 6. How rain is formed.
- 7. How air pressure affects weather.
- 8. How different surfaces affect heat absorption.
- 9. How lightning forms.
- 10. How weather balloons measure temperature.

Robotics Projects

- 1. How to make a simple robot.
- 2. How sensors help robots move.
- 3. How motors power robots.
- 4. How robots use cameras to see.
- 5. How robots follow a path.
- 6. How robots can lift objects.
- 7. How robots clean up.
- 8. How AI helps robots make decisions.
- 9. How robots help in space.
- 10. How to program a simple robot.

Forensic Science Projects

- 1. How fingerprints help identify people.
- 2. How blood types are used in forensics.
- 3. How soil can link a criminal to a scene.
- 4. How UV light shows hidden messages.
- 5. How DNA is used in crime solving.
- 6. How to identify fibers in a crime scene.
- 7. How to analyze shoe prints.
- 8. How to use handwriting analysis in forensics.
- 9. How to detect poison in a substance.
- 10. How to match hair samples in forensics.

Genetics Projects

- 1. How traits are inherited.
- 2. How DNA is extracted from fruit.
- 3. How mutations affect traits.
- 4. How genes affect eye color.
- 5. How selective breeding works.
- 6. How genetics affect disease.
- 7. How to extract DNA from human cells.
- 8. How siblings' traits are similar or different.
- 9. How genetic testing works.
- 10. How cloning works.

Agriculture Projects

- 1. How soil pH affects crops.
- 2. How drought affects plant growth.
- 3. How different seeds grow in various soils.
- 4. How plants grow with less water.
- 5. How compost helps plants grow.
- 6. How irrigation affects crop growth.
- 7. How plant spacing affects growth.
- 8. How organic vs. non-organic farming works.
- 9. How crop rotation helps soil.
- 10. How greenhouse conditions affect plants.

Zoology Projects

- 1. How animals adapt to their environments.
- 2. How habitat affects animal behavior.
- 3. How temperature affects animal activity.
- 4. How animals communicate.
- 5. How animals use camouflage.
- 6. How nocturnal animals survive.
- 7. How animal diets affect their health.
- 8. How animals use tools.
- 9. How animals find their food.
- 10. How migration affects animals.

Astronomy & Space Science Projects

- 1. How distance from the sun affects temperature.
- 2. How black holes work.
- 3. How satellites orbit Earth.
- 4. How stars are born.
- 5. How space telescopes work.
- 6. How the moon affects Earth.
- 7. How planets are named.
- 8. How space exploration affects our knowledge.
- 9. How comets are different from asteroids.
- 10. How gravity works on other planets.

Planning and Conducting the Experiment

Here are simple steps to help you plan and do your experiment:

- 1. Make a Plan Write down what you will test and how you will do it.
- 2. **Gather Materials** Collect everything you need before you start.
- 3. **Follow Steps Carefully** Do the experiment step by step, just like your plan.
- 4. **Record Results** Write down what happens during the experiment.
- 5. **Repeat if Needed** Do the experiment a few times to make sure your results are right.
- 6. **Stay Safe** Always be careful and follow safety rules.

Now you're ready to start testing and seeing what happens!

Documenting the Project

Here's how to keep track of your project:

- 1. **Write down your steps** Record each part of your experiment.
- 2. **Note your results** Write what happens during the experiment.
- 3. **Take pictures** Snap photos of your work to show your process.
- 4. Make a chart Use charts or graphs to show your results clearly.
- 5. **Explain your findings** Write about what you learned from your experiment.
- 6. **Stay organized** Keep everything neat and easy to understand.

Now your project is ready to present!

Safety Considerations

Here are some easy safety tips:

- 1. **Follow the instructions** Always read and follow the steps.
- 2. Wear safety gear Use goggles or gloves if needed.
- 3. **Work in a safe place** Pick a clean, bright spot for your experiment.
- 4. **Ask for help** Get help from an adult if something seems unsafe.
- 5. **Be careful with materials** Handle tools and chemicals carefully.
- 6. **Clean up** Tidy up when you're finished.

Stay safe and have fun!

Common Mistakes to Avoid

Here are some easy things to remember:

- 1. **Not following the plan** Stick to your steps to get good results.
- 2. **Forgetting to record** Write down your results as you go.
- 3. **Not checking safety** Always follow safety rules.
- 4. **Rushing the experiment** Take your time and do it carefully.
- 5. **Skipping tests** Do your experiment more than once to make sure it's right.
- 6. **Not asking for help** Get help if you're unsure about something.

Avoiding these mistakes will help you do your best!

Resources for Science Fair Projects

Here are some simple places to get ideas and help:

- 1. **Library** Check out books on science experiments.
- 2. **Online websites** Use trusted sites for project ideas and tips.
- 3. **Teachers** Ask your teacher for suggestions or advice.
- 4. **Family** Talk to family members who may have ideas or experience.
- 5. **Science kits** Buy or borrow kits with materials for experiments.
- 6. **YouTube** Watch videos for step-by-step instructions.

These resources can help you with ideas and make your project even better!

Science Fair Project Ideas for 8th Grade Easy

Here are some of the best science fair project ideas for 8th grade easy

Which Soil Helps Plants Grow Best?

Objective: Find out which type of soil is best for plant growth.

Materials

- Different soils (sand, clay, potting soil)
- Small plants (like beans)
- Pots, water

Steps

- Grow plants in each type of soil.
- Measure and compare how tall they grow.

How Salt Water Affects Plant Growth?

Objective: Test if salt water harms plant growth.

Materials

- Salt, water, plants (like beans)
- Pots, soil

Steps

- Water plants with different salt amounts.
- Compare how the plants grow.

Which Liquid Melts Ice the Fastest?

Objective: See which liquid melts ice the quickest.

Materials

- Ice cubes, liquids (water, soda, saltwater, juice)
- Timer, containers

- Put ice cubes in different liquids.
- Time how long it takes to melt.

How Temperature Affects a Chemical Reaction?

Objective: See how temperature speeds up or slows down a reaction.

Materials

• Baking soda, vinegar, cups, thermometer

Steps

- Mix baking soda and vinegar at different temperatures.
- See how fast the reaction happens.

Does Music Help Plants Grow?

Objective: Find out if music helps plants grow.

Materials

- Plants (like beans), music player
- Pots, soil, water

Steps

- Play music for some plants, keep others in silence.
- Measure how they grow.

How Light Color Affects Plant Growth?

Objective: Test how different light colors affect plant growth.

Materials

- Different color light bulbs (red, blue, green)
- Plants (like beans), pots, soil

- Grow plants under different color lights.
- Measure how tall they grow.

Which Material Keeps Things Warm?

Objective: Test which material keeps things warm best.

Materials

- Different materials (cloth, foil, plastic)
- Hot water, containers, thermometer

Steps

- Wrap hot water containers in different materials.
- Measure how fast the water cools.

Which Paper Towel Is Strongest?

Objective: Find out which paper towel holds the most weight.

Materials

- Different paper towels
- Water, weights

Steps

- Soak paper towels and add weight.
- See which one holds the most before tearing.

How Plane Shape Affects Flight Distance?

Objective: See how different shapes of paper planes affect how far they fly.

Materials

• Paper, ruler, tape, stopwatch

- Make different paper plane shapes.
- Measure how far each one flies.

Does Sugar Speed Up a Reaction?

Objective: Test if sugar makes a reaction happen faster.

Materials

• Baking soda, vinegar, sugar, cups

Steps

- Add sugar to vinegar and baking soda.
- See if the reaction is faster with sugar.

Science Fair Project Ideas for 8th Grade Biology

Here are some science fair project ideas for 8th grade biology:

How Light Affects Plant Growth

Objective: See how light affects plant growth.

Materials

- Small plants (like beans)
- Different lights (sunlight, lamp, no light)
- Pots, soil, water

Steps

- Grow plants with different lights.
- Measure how tall they grow.

Results

• Plants grow best in sunlight.

How Temperature Affects Plants

Objective: Test how water temperature affects plants.

Materials

- Plants (like elodea)
- Warm and cold water
- Light, beakers

Steps

- Put plants in warm and cold water.
- Count how many bubbles (oxygen) come out.

Results

• Warmer water helps plants grow faster.

Which Soil Helps Plants Grow Best?

Objective: Compare different soils for plant growth.

Materials

- Different soils (sand, clay, potting soil)
- Small plants (like beans)
- Pots, water

Steps

- Grow plants in different soils.
- Measure how tall they grow.

Results

• Potting soil helps plants grow best.

How pH Affects Plant Growth

Objective: See how water pH affects plants.

- pH test kit
- Plants (like lettuce)
- Water with different pH levels

See also 181+ Fun and Creative Hydrology Projects for Students

Steps

- Water plants with different pH waters.
- Measure their growth.

Results

• Plants grow best with neutral pH water.

What Liquid Helps Bacteria Grow?

Objective: Test which liquids help bacteria grow.

Materials

- Petri dishes, agar
- Bacteria sample
- Different liquids (water, milk, soda)

Steps

- Put liquids on agar with bacteria.
- Measure bacterial growth.

Results

• Some liquids help bacteria grow faster.

Does Music Help Plants Grow?

Objective: See if music helps plants grow.

- Plants (like beans)
- Music player
- Pots, soil, water

Steps

- Play music for some plants, leave others in silence.
- Measure their growth.

Results

• Music might help plants grow better.

How Often Should You Water Plants?

Objective: Test how often to water plants.

Materials

- Plants (like beans)
- Pots, water

Steps

- Water plants every day, every two days, or once a week.
- Measure their growth.

Results

• Plants grow best with regular watering.

How Oxygen Affects Fish

Objective: See how oxygen affects fish breathing.

- Fish tank, fish
- Oxygen pump
- Timer

Steps

- Change oxygen levels in the tank.
- Measure how fast the fish breathe.

Results

• Fish breathe faster with more oxygen.

How Antibiotics Stop Bacteria

Objective: Test how antibiotics stop bacteria growth.

Materials

- Petri dishes, agar
- Bacteria sample
- Antibiotics (like penicillin)

Steps

- Put bacteria on agar plates.
- Add antibiotics and see where bacteria don't grow.

Results

• Antibiotics stop bacteria from growing.

Which Fruit Has the Most Vitamin C?

Objective: Test which fruit has the most vitamin C.

Materials

- Fruits (like oranges, strawberries)
- Vitamin C test kit

Steps

• Test vitamin C in each fruit.

Compare results.

Results

• Oranges and strawberries have the most vitamin C.

8th Grade Science Fair Projects With Food

Here are some of the best 8th grade science fair projects with food:

How Different Sugars Affect Baking

Goal: See how different sugars (white, brown, honey) change cookies or cakes.

Materials

- White sugar, brown sugar, honey
- Recipe for cookies or cake
- Mixing bowls, oven

Steps

- Make the same recipe three times with different sugars.
- Compare the results.

Results

- White sugar makes cookies crispy.
- Brown sugar makes them chewy.
- Honey changes the taste and texture.

Which Drink Stops Apples from Browning?

Goal: Test which drink (lemon juice, soda, water, vinegar) keeps apples from turning brown.

- Apples
- Lemon juice, soda, water, vinegar

• Knife, bowls, timer

Steps

- Cut apples into slices.
- Dip each slice in a different drink.
- Check which slice browns the least.

Results

- Lemon juice and soda help stop browning.
- Water and vinegar don't work as well.

How Temperature Affects Yeast in Bread

Goal: See how cold, room temp, and warm temperatures affect yeast.

Materials

- Yeast, sugar, warm water
- Flour, bowls

Steps

- Make dough with yeast and sugar.
- Split dough into three parts and put them in different temperatures.
- Watch how much dough rises.

Results

- Warm temperature helps yeast grow best.
- Cold slows yeast.
- Hot kills yeast.

What Affects How Popcorn Pops?

Goal: Test how moisture in popcorn kernels affects how they pop.

- Popcorn kernels (dry, room temp, soaked)
- Popcorn machine or stove

Steps

- Test kernels with different moisture.
- Pop them and see which ones pop best.

Results

- Moist kernels pop better.
- Dry kernels don't pop as well.

How Salt Affects Ice Cream Texture

Goal: See how adding salt to ice affects ice cream.

Materials

- Ice cream mix
- Ice, salt

Steps

- Make ice cream with and without salt.
- Compare the texture after freezing.

Results

• Salt helps ice cream freeze smoother.

Do Organic Fruits Have More Nutrients?

Goal: Compare nutrients in organic vs. non-organic fruits.

- Organic and non-organic fruits
- Nutrition test kit (optional)

Steps

- Test the nutrients in both types of fruits.
- Compare the results.

Results

• Organic fruits may have more nutrients, but not much difference.

How pH of Water Affects Plant Growth

Goal: See how different pH levels in water affect plant growth.

Materials

- Plants (like beans or lettuce)
- pH test kit
- Water with different pH levels

Steps

- Water plants with different pH water.
- Measure growth over a couple of weeks.

Results

• Neutral water helps plants grow best.

Which Oil is Best for Frying?

Goal: Test which oil (vegetable, olive, or coconut) fries food best.

Materials

- Vegetable oil, olive oil, coconut oil
- Food to fry (like french fries)
- Frying pan or deep fryer

- Fry food in each type of oil.
- Compare the taste and texture.

Results

- Vegetable oil makes food crispier.
- Olive oil may be healthier but has a different texture.

How Fast Do Different Foods Mold?

Goal: See how fast different foods mold.

Materials

- Bread, cheese, fruit
- Plastic bags or containers

Steps

- Store the foods in the same place.
- Check which one molds first.

Results

• Bread molds faster than cheese or fruit.

How Does Flour Affect Cookies?

Goal: See how different flours (all-purpose, whole wheat, almond) change cookies.

Materials

- All-purpose flour, whole wheat flour, almond flour
- Cookie ingredients

- Make dough with different flours.
- Bake and compare texture and taste.

Results

- All-purpose flour makes soft cookies.
- Whole wheat flour makes cookies denser.
- Almond flour gives a crumblier texture.

Conclusion

A science fair is a fun way to learn by doing experiments. You can pick a project that interests you, like testing how plants grow or seeing how different materials work. It helps you understand how science works in the real world.

You'll also learn important skills like solving problems, thinking clearly, and working with others. By sharing what you find, you get better at explaining ideas and building confidence.

A science fair makes learning exciting and helps you discover new things. So, pick a project, try experiments, and enjoy the fun of science!

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