

Putting
Together
Your

Jake

Science Fair
Journal

SQUARE DEAL



SCHEDULE
HORAIRE / HORARIO

1	2	3	4	5	6	7	8

SciFair

experiment journal

fill this in

name _____
class _____ team _____
seat _____

www.armstrong227q.com/sciencefair 1

fill in your information

contract

fill in all information

_____ of class _____ will experiment on this project idea _____ as my science fair project. I have done this project myself. It is my own work and was done this year. This project counts towards my grade. My project will be presented in the form of a display board and speech. The project will show the experimentation process (the scientific method)

Sign contract

Student signature _____ date _____

I have talked to my child. I am sure he/she understands what to do.

Get parent to sign contract

get signed
parent signature _____ date _____

pg 2

SciFair

table of contents

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Stay organized and ON SCHEDULE!



- Science Fair projects require many weeks to be planned and completed well.
- Below is the time schedule for you to follow so that you do not fall behind with your planning and work.
- Pieces of your project will be checked AND graded throughout this seven week period. Look at the due dates now!
- Make sure ALL work is done in your separate Science Fair Experiment Journal.

Science fair Schedule

Check off	Week	What you should be doing
[]	1 (1/8-3/12)	Identify your topic and establish your purpose and hypothesis CHECKED and GRADED ON: January 16 th
[]	2-3 (4/15-1/28)	Plan your experiment collect materials/equipment, write your procedure CHECKED and GRADED ON: January 29 th
[]	4-5 (2/29-2/9)	Conduct your experiment and collect data and results CHECKED and GRADED ON: February 12 th
[]	6-7 (2/12-2/23)	Analyze results and establish conclusion. Create presentation boards to bring in and display CHECKED and GRADED ON: February 26 th
[]	8 (2/26-3/2)	Bring your projects into school for presentation! DUE INTO SCHEDULE Starting February 26 th

Keep up to date

Keep up to date

Ideas

Science

IDEAS FOR SCIENCE FAIR

PROJECTS

What is the best home insulator?
 Colon affect on heat absorption?
 Wing design for better planes?
 What is the best chemical battery?
 How can you prevent iron from rusting?
 Electroplating
 Conductivity of various substances
 Comparison of reaction times
 Effect of temperature on density
 Effect of temperature on density
 How does a television viewing affect behavior?
 Suspension bridge design
 Color persistence of gerbils
 Paper recycling
 Temperature affect on seed germination
 Which salt type is best for plant growth?
 Design of color blindness test
 Purifying water
 Spinal wire construction
 Comparison of biodegradable detergents
 Airplane wing design for greatest lift
 Does magnetic affect seed germination?
 Does TV change kids' moods?
 Optical illusions
 Search for the best natural fiber for ground water
 How are landmines affected by salt?
 How does color perception change when the background color changes?

Does oil stain or oil patch provide better protection?
 Porosity of soils
 Sugar content of food
 Comparison of blood pressure
 Effects of fertilizer on earthworms
 Plant tolerance to salt
 What material is best for road construction?
 How does television viewing affect behavior?
 Suspension bridge design
 Color persistence of gerbils
 Paper recycling
 Temperature affect on seed germination
 Which salt type is best for plant growth?
 Design of color blindness test
 Purifying water
 Spinal wire construction
 Comparison of biodegradable detergents
 Airplane wing design for greatest lift
 Does magnetic affect seed germination?
 Does TV change kids' moods?
 Optical illusions
 Search for the best natural fiber for ground water
 How are landmines affected by salt?
 How does color perception change when the background color changes?

more ideas at:

www.armstrong227q.com/sciencefair

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Idea list

More at:

www.armstrong227q.com/sciencefair

What are your science fair ideas?

Science

idea list

What are your ideas

what have you picked as the project you will do?

date: _____

why will you experiment on this project idea?

Project idea OK by _____

Project must be completed by _____

pg 7

fill in all information

how you will be graded

Judging Guide

SCIENCE FAIR JUDGING GUIDE & RUBRIC

This table will be used to score each science fair project at South Armstrong Middle School. The evaluation board under the science teacher will represent different student subgroups for each particular task. The column labeled "70" represents subgroups that is on grade level, with the level "5" indicating a level of work needing improvement. The category labeled "None Credit" represents an unacceptable or missing component of the project. Your project may be judged to be none credit and not eligible to win.

Category	15	10	5	Below Grade
Letter Display	The display has been constructed with excellent craftsmanship. Observations are clearly presented, written explanations are complete with appropriate use of diagrams and illustrations.	The display has been constructed with good craftsmanship. Observations are clearly presented, written explanations are complete with appropriate use of diagrams and illustrations.	There is no lack of organization with appropriate observations and/or data. Explanations are difficult following the flow of the project due to the lack of organization.	No display provided.
Oral Presentation	There is a high level of preparation. The presenter(s) have a great understanding of their project.	There is a fair level of preparation. The presenter(s) have a very basic understanding of their project.	There is a low level of preparation. The presenter(s) have a very basic understanding of their project.	Not prepared to present.

pg 8

define =

Controlled experiment =

Control group =

define (look in a dictionary)

all words given to you by your teachers as part of this project

pg 9

this word search will be handed in and graded before it is given into our book.

Science Fair Word Search

Science Fair

The SCIENCE FAIR

visit:

SONVGMTCHERDQOGLREDS
 ISJUDONMREKQOORTSOC
 SXEUTIOUUEELGIAPIRI
 ESKRDEJEDDEBBIDRILTE
 ...ACEBTBIOROKXUEN

Hand in for a grade

pg 10

Use 5 new words you learned from doing your project in sentences

you must find 5 new words to use in sentences

pg 11

Written format for your Project

We use the Scientific method as a written format for our projects

Question (problem)
 materials/equipment
 hypothesis
 procedure
 data/results
 conclusion
 variables

12... Scientific Method

Question I will answer

materials I will use (consumable items)

equipment I need

this is what I think I will do and what I feel might happen

pg 12

My experiment

procedure - step by step set of instructions for doing my experimentation

step 1- first I

step 2-

pg 13

Scientific Method

data - this is a collection of facts found through my experimentation.

you can make tables and charts

pg 14

My experiment

journal notes: my thoughts and ideas photos and graphs too

data _____

pg 15

science fair

results

is your data scattered or fairly consistent?
 how do you know?

what does your data suggest?

pg 16

my experiment

What are your variables?

what variables did you control in your experiment?
what does this mean?

journal notes my thoughts and ideas

date _____

pg 17

Written words on top of all pages

fill in all information

Include photos, data charts, graphs.

Science fair - my experiment

Conclusion
 what did you discover/findout because you did this experiment?

Scifair
 What could you have done to make this experiment better?

Is it possible to continue with this project next year?
 How or why not?

Writing at the top of the page

pg 18

pg 19

The purpose is the Question or problem

Display Board Mock Up

this is what my project will look like

Scifair

MUST include the following:

- Purpose
- Hypothesis
- Procedure
- Materials / Equipment
- Results / Data
- Conclusion
- Vocabulary
- References (on back)

Name: _____
 Class: _____
 Table: _____ Seat: _____
 Date: _____

DUE: Week of February

Define: Mock Up:

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↑ VISIT

This is a drawing of how your finished project will look like

pg 20

pg 21

This reading assignment will be handed in and graded before you give it into your notebook

reading- creating a winning display

name _____

1 _____
 2 _____
 3 _____
 4 _____
 5 _____
 6 _____

Creating a Winning Display

hand in

reading- scientific method

answer all questions in your notebook

Scifair

SCIENTIFIC METHOD—
 I. Collecting Data

SCIENTIFIC METHOD—
 Collecting Data
 Organizing Data
 Stating a Conclusion

QUESTIONS

1. What's the Scientific method? How does it work?
 2. Why is it important to have a hypothesis?
 3. Why do you need to collect data?
 4. How do you organize and present your data?
 5. Why are graphs important?
 6. Why are graphs important?

Writing at the top of the page

Questions + Answers will be written on this page

pg 22

pg 23

Samples of how to write a bibliography

24 Bibliography format

How to You do it

BASIC FORMAT FOR A BOOK. For most books, arrange the information into three units, each followed by a period and one space: (1) the author's name, last name first; (2) the title and subtitle, underlined or italicized; and (3) the

My Bibliography 25

1-

2-

this is when we write our references or bibliography

pg 24

pg 25

pg 26 & 27 are empty at the moment

As students present their projects we sit listen and, at the end, get to ask questions. We write our thoughts and notes on these Gallery Walk sheets. We grade the projects based on our Judging Guide.

28 Gallery Walk

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