**2019 Sloan 5th Grade Science & Art Fair**

**This year the Sloan Science & Art Fair will be limited to 5th graders submitting judged projects.**

The purpose of the fair is to encourage students to develop a greater interest in science, technology, and art and to develop skills in creativity, innovation, critical thinking, research, problem solving, and use of the scientific method to answer a question.

The Judged Contest is modeled after the Pittsburgh Regional Science and Engineering Fair (PRSEF), which Middle and High School students can enter with the hopes of earning cash and scholarship prizes. In keeping with the PRSEF spirit, contest entrants will explain their projects to a judge. Although Sloan students are not eligible to enter PRSEF, this will give our 5th graders the opportunity to become familiar with the requirements for PRSEF projects if they are interested in participating in Middle or High school. For the Judged Contest in science, students should use the scientific method.

Winning projects will be kept to display at the Middle School during REMAKE Learning Day on May 13th.

| **Appropriate Types of Science Projects for 5th grade** |
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| **Demonstration of a** **Scientific Principle** | Clearly explain a scientific idea such as how electricity travels or what causes erosion with text, diagrams, pictures, and/or models. These projects are not research questions, because the answers are already known. |
| **Experiment using** **Scientific Method** | Test a hypothesis often by using a controlled experiment to answer a question. A controlled experiment uses two groups - one that is managed and one that is variable. E.g., What is the effect of temperature on a mealworm? |

**About the Scientific Method**

The scientific method is a consistent way of answering a question in a scientific way.

* **Question** Think of a question that can’t be answered with a simple “YES” or “NO,” but make it simple enough that you’ll be able to think of a trustworthy way to answer it.
* **Hypothesis** A hypothesis is a good guess at the answer to your question. It is always okay to be wrong, so don’t pick a question to which you already know the answer!
* **Experiment** Design an experiment, or think of a procedure you will follow to find an answer to your question. Make a careful list of all materials you use for your experiment. List each step of what you do.
* **Data Collection**  Carefully record data that you collect during your experiment or from you procedure. It’s better to have too much data than not enough, so keep lots of notes. Graphs can make it easier to see what your data is telling you.
* **Data Analysis** Think carefully about what your data tells you, even if it shows that your hypothesis is not correct. Think carefully about all the data together, not just one or two pieces of data, especially if they’re very different from the rest.
* **Conclusion** The conclusion is simply the answer to the question with which you started. Be sure your conclusion is based on the results of your experiment, survey, or demonstration.

**Looking for Ideas?**

The chart below provides some examples of types of projects all students can do in different areas of Science and Art. Do some research and use your imagination! Share something you love or what fascinates you. These are only suggestions!

|  |  |  |
| --- | --- | --- |
| **Area of Study** | **What does this include?** | **Types of Projects in this area** |
| Physical Science | Light, sound, electricity, magnetism, mechanical energy, physics, chemistry, rocketry, atomic and nuclear energy, heat and force, technology  | Simple Machines, Good conductors of electricity, pH factors, two-cycle engines, flying airship, photography, radio, light, computer programming, nanotechnology |
| Earth Science | Weather and climate, geology,, astronomy, space, oceanography, meteorology | Rocks and minerals, stalagmites, global warming, crystals, clouds and weather, glaciers, stars, the Moon, Mayan calandar |
| Biological Science | Plant life, animal life, animal behavior, botany, zoology, biochemistry, physiology, health and safety, pharmacology | Teeth, the digestive system, how the heart works, effects of smoking, early man, cheese, chameleons, carnivorous plants, beaver lodges, gerbil training, chemistry of cooking |
| Environmental Science | Water, air, land use, urban problems, ecology, conservation management, pollution, pesticides | Pollution, fracking, recycling, DDT, endangered species, water cycle, solar panels, acid rain |
| Art | Paint, clay, paper, fabric, music, poetry, creative writing, photography, sculpture, crafts. Use of textures, colors, shapes, sound and smell | Water color, oil, acrylic, paper mache, clay, Legos, fabric, yarn, short story, poetry, write a song, cartooning, comics, photo essay, computer animation, natural dyeing of wool.  |

**Important FAQs**

* Parents may assist their children with their projects, but their input should be limited. This is about learning, not perfection!
* Projects should not be something that has already been completed for school.
* For the Judged Contest, Sloan teachers will act as judges and use a standard rubric for assessment. **This will occur on Friday, May 10th during school**. Students will be asked to stand near their projects and answer 3-5 questions from a judge about what they learned. The rubrics for science and art entries and sample questions will be shared once a 5th grade student has registered to be judged.
* We will contact parents with the date/time of judging. Once the judging schedule has been arranged, times cannot be changed.
* **Please drop off projects in the gym. Please park and enter through the gym door. You will be asked to sign in and pick up a project card. This card will stay with the project at all times.**

**Rules and Guidelines**

1. No liquids are allowed in student displays.
2. Displays should be freestanding. Display boards are available at craft or office supply stores.
3. If you do not want your project to be touched, please provide a sign. Projects will not be supervised 100% of the time, so please do not leave anything valuable out on the tables.
4. Projects should not be dangerous in nature.
5. Projects will be moved so please be sure that everything is securely affixed.
6. Please include the student’s name, grade and teacher somewhere on the project.
7. Projects should not be transported on the school bus.

**Timeline**

|  |  |
| --- | --- |
| **Important Dates** | **What to Know** |
| Friday, April 5th  | Entry forms due |
| Tuesday, May 3rd  | Parents will be notified of date/time for judging. |
| Wednesday, May 8th, 3:30 – 7:00 pm | Project drop-off |
| Friday, May 10th, during school hours  | Eligible 5th grade projects will be judged |
| Friday, May 10th, 3:30 – 7:00 pm | **Pick-up of Projects** |
| Monday, May 13th, 7:00-9:00 pm | **Display of winning projects at REMAKE Learning Day!\*** |

**NOTE:** we will only accept projects during the times listed above. We can’t allow anyone to bring projects in at another time due to security issues.

If you have special space requirements, please contact

Eryn Devola: erynrenn@gmail.com

 \*Pickup of projects being displayed at REMAKE Learning Day will be arranged separately.



Thanks in advance to all of the students participating! We are excited to see your amazing projects!

**5Th Grade Sloan Science and Art Fair Entry Form**

**Deadline: Friday, April 5, 2019 – turn into your teacher**

**Project Type (one project per form):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Judged Individual Art (5th gr) |  |  | Judged Individual Science (5th gr) |  |

**Student(s) Information**

Please fill out only one entry form for a team project, listing all students’ names on it and select one parent below as the key contact.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Grade** | **Teacher** |  |
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In our continued effort to go paperless, please provide a parent’s info below for any communication.

|  |  |
| --- | --- |
| Name: |  |
| Phone: |  |
| Email: |  |

Thank you from the Science & Art Fair Chair

Eryn Devola: erynrenn@gmail.com