

Kanagawa Prefectural Atsugi High School offers an opportunity for students to make a presentation on their research. The aims of this fair are to enhance presentation skills, to motivate students to do their scientific research and to improve their international attitude through cultural exchange.

# Participating school

### 7 Japan schools

Kanagawa Prefectural Atsugi High School

Kanagawa Prefectural Hiratsuka Secondary School

Yokohama Municipal Yokohama Science Frontier High School

Kanagawa Prefectural Tama Senior High School

Bunkyo Gakuin University Girls' Senior High School

Tokyo Metropolitan Toyama Senior High School

Chuo University Yokohama High School

#### 14 Taiwan schools

Guoguang Laboratory School, NSYSU

I-Shou International School

National Experimental High School At Central Taiwan Science Park

National Nanke International Experimental High School

National Pingtung Senior High School

National Taitung Girls' Senior High School

New Taipei Municipal Lin-kou Senior High School

Taipei Municipal Dazhi High School

Taipei Municipal Lishan High School

Taipei Municipal Nei-Hu Vocational High School

Taipei Municipal Yang Ming High School

Taipei Municipal Yong Chun High School

The Affiliated High School of National Chengchi University

The Affiliated Senior High School of National Chi-Nan University

# Schedule

AISF 2019 has two days. Day 1 is cultural exchange and Day 2 is science event.

### Day 1: Cultural Exchange

March 12<sup>nd</sup>, 2019

Kanagawa Prefectural Atsugi High School

#### Program

Time	Activity			
13:30-14:00	Checking Attendance @ School Gym			
	· Participants are guided to School Gym.			
14:00-14:10	Opening Ceremony @ School Gym			
	1) Welcome Address by Principal of Atsugi High School			
	2) Welcome Address by a representative of Atsugi High School			
14:10-14:45	Presentation (10 min each)			
	· Japanese Culture by Atsugi International Club			
	Music Performance by Atsugi High School students			
14:45-15:20	Talk session @ Classrooms			
	· Participants are to be separated into 5 groups			
15:20	Closing @ each classroom			
	· Photo Session (close at 15:30)			

### Day 2: Science Fair

March 13rd, 2019

Kanagawa Prefectural Atsugi High School

### Program

Time	Activity	
10:00-10:50	Poster Presentation Part 1	
	Competition Presentation (Group A)	

	Standard Presentation (Group A)	
10:50-11:40	Poster Presentation Part 2	
	Competition Presentation (Group B)	
	Standard Presentation (Group B)	
11:40-12:50	Lunch Break	
13:00-14:45	Oral Presentation	
15:00-15:15	Closing Ceremony	

# Science Fair Award

# **Outstanding of Oral Presentation**

Title
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The Study of Garbage Sorting and Recycling Device with Neural Network

Semaphorin7a: investigate a new immune and neurodegenerative therapeutic target for neurodegenerative disease

### Students Vote Award

Title				
New Type of Natural Paints				

# List of Presentation

# Oral Presentation

### Title

Reason magnet repel tomatoes

Reuse of Inedible Part of Vegetables and Fruits

Volvox Shows the Environment of 50 Million Years Ago

Suppress Spiciness!

The Study of Garbage Sorting and Recycling Device with Neural Network

Semaphorin7a: investigate a new immune and neuroregenerative therapeutic target for neurodegenerative disease

# Poster Presentation-Competition Section-

#### Title

The effect of shoe type on walking stability

Is Doraemon's magical gadgets realizable? ~4-D Pocket~

To make a skirt that hardly lift up.

Does a Baseball Go Farther by Upper Swing

Changes in behavior of parachute by attaching partitions

The correlation among Elnino, La nina affects and rainfall in Taiwan's winter

The effect of the El Nion and the La Nino on the typhoon path

Hualien earthquake b value changed

Discussion the Fan Blades' Structure of Homemade Wind Power Generator

Simulating the Best Electricity-Generating Condition of Piezoelectric Generator

Automatic Fruit Collector by using Image Recognition

A human-like bionic palm using machine learning to execute sign language

3D knuckle rehabilitation device combined with brain wave training and pneumatic muscle cylinder

Washing Device

The Mushroom Garden on The Green Brick

Improvement of Web Crawler Search Algorithm by Graph Theory Method

Implementation of Arrange 9!—Unveiling Brute-Force Attack

The Area and Circumference of Closed Curves in Tessellated Tile Pavement

Each Side Looks Alike: Properties of Three-View Drawing of Perfect Structures

Internal stress of Dutch tears

The secret of bubble living for a long time

Self Re-lighting Candle

Can we make noodles without using brine of the same elasticity as Chinese noodles?

Selective Colorimetric Sensing of Hg(II) ions using modified Silver Nanoparticles

Fluorescent Carbon Nanodots Prepared from Baked Onion and its Application in Bioimage

Preparation of Exfoliated Graphene Sheets in Water and Its Application as Antibacterial Material

Feasibility of Removal of Heavy Metal Ions from Laboratory Wastewater by Superabsorbent Polymer(SAP)

Searching for the Substance Adsorbing Copper Ions by the Adsorption Mechanism of Chitosan

Using chinese traditional herbs for dye-sensitized solar cell research

Protein-templated biomimetic synthesis of CuS for tumor-targeted photodynamic/photothermal therapy

Studies of the good effect in the non-edible part of vegetables

Removal of benzene using scallop shells

The jellying state of aiyu jelly in the condition of calcium ions

Investigation of conditions for methane gas production with chicken droppings

Making medicine which send away ants with oil from avocado

Let's Do BBQ with Garbage!!

Acorn Rescues The World -The Formation of Biodegradable Container

Making High Moisturizing Cream From Rice Bran

A study on black soldier flies' efficiency in the breakdown of kitchen waste

The Story Behind Shells: The Study of Hatching Rate and Swimming Behavior of Clam Shrimp Would vision affect the distinction of taste?

Application of aloe vera in sun protection

To Explore Adipose-Derived Stem Cells which was affected by Deep-Sea Water and vibration

Through mathematical and physical method to investigate coiling behavior Millipedes use as defense mechanism

To explore the effect of natural extract Gossypol-acetic acid on autophagy and its effect on Alzheimer's disease

Ocean current energy generation

The warning device for increaing the visible of guardrail near the slope

Fluorescent-tunable copper nanoclusters and their application in metal sensing for environment

Increase the rate of separation and sorting of PET bottle caps by using Behavioral psychology

Scuba diving depth display and group indicator diving device

By the Spread of Enterovirus 71 to Explore the Ideal Strategy of Medical Resource Allocation and Epidemic Prevention in Taiwan

#### Poster Presentation-Standard Section-

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Taking Wrinkles in a Word Book

Make Paper into Bioethanol

Soundproof by the Tent

Influence of Floor and Cleaning Tools on Collection Volume of Dust

Shock Absorber Using Potato Starch Solution

Examination of Fire Extinguishing Method Using Sound Waves

Oil Assistance for Plant Growth

Change of Lie's Extraction Amounts under some Conditions

Making Bread Using Natural Yeast

Reduction of Waste by Making Edible Containers

The Effect of a Growth Environment oo the Groeth of Plants in Aquaculture

Food poisoning prevention by Japanese pepper leaves

Study of Follow the instructions for Design by Behavioral Psychology

Research of impression using difference in appearance SNS

Relationship between Dish Color and Appetite

Prevention of Fish Bait Waste by Using Organ of Fish

The Influence of Culture Mediumon Penicillium Inhibition Zone

Purification of Water by Coffee Grinds

The Efficient Shape of Fan

Investigation of Making Transparent Glass

The 3 Seconds Law

Protect Stuff with Dilatancy

Research on Strength of Paper Using Dietary Fiber

Rice Glue

Healthy Ingestion of Caffeine

Stuffed Toy Therapy Using Smiley Face

Improve Memory by Font Difference

Glass Making from Plant Waste

Make Paint from Organic Matter

Isolation of Cellulolytic Fungus and Reducing Cost of Paper

Improvement of Soil by Using Vegetable Garbage Ash

Improvement of Muds by Using Materials What are Low Chemical Vesistouce

Making Natural Green Glass

New Type of Natural Paints

How to Extract Hinokiol Easily

The Way of Improvement for Better Communication

Separation of Trash Using Psychological Effects of Color

Development Antibacterial Sheet

Let's Make to Prevent Ice Cream from Melting Quickly with Rice Flour

Make a Hard-to-break Smart Phone Case

Acorn Save People from Hunger Problems

The Relation between Moisturizing Capacity and the Type of Oil

Recycling of Foaming Polystyrene

Application of the Structure of Gecko ~Make a Studless Shoes~

Verification of Antioxidant Effect of Pine Needle

Make Starch Paste from Bread

Make Plastic from Milk

Color of Food and Predation Behavior

Making Delicious and Low-calorie Ice Cream

Relationship between Sugar and Viscosity of Jam

Possibility of Cardboards

Making Bio-ethanol from Used Paper

Invention of Propeller Capable of Generating More Wind Power

How to Leave Gym Earlier

An effect of the coffee grounds

The Relationship between Hue of Building and City Temperature

Making Red Colorings

More types of dyes

Make cocoa clear

A research for improvemt of bone conduction earphone

Prevent avalanche in books

Let's make safety paints

Genelation by waste lighters

Ice Cream That Doesn't Melt

Producing biooethanol from Alocasia odora

Safty Insect Repellment

Make Sunscreen from Tea Leaves

Antibacterial of soy sauce brewing bacteria

Hard to dry rice cake

Vibration control using center of gravity

Reuse of Inedible Part of Vegetables and Fruits

Volvox Shows the Environment of 50 Million Years Ago

Suppress Spiciness!