

Survey on High School Students' Views on Science

The National Institution for Youth Education is conducting this survey on High School Students' Views On Science in several countries including the United States, Japan, China and Korea.

The goal of this survey is to utilize the findings from the survey for future education.

Instruction for answering the survey

- (1) All answers are completely anonymous. **DO NOT SIGN YOUR NAME ON THIS QUESTIONNAIRE.**
- (2) Please answer every question by yourself.
- (3) There is no right or wrong answer to any question. Just **CIRCLE THE ANSWER** that best describes your opinion or situation.
- (4) Each question indicates the number of circles needed. Please follow the instructions.
- (5) Based on your answer, you may be instructed to skip some questions. Please follow the instruction.
- (6) When you choose "Other" with parentheses, please specify your answer in it.
- (7) The word "Science" in this survey includes, physics, chemistry, biology and geology, etc.

Thank you very much in advance for your participation.

Q 1 Are you interested in Nature or Science? Please circle one

1. Very much interested 2. Interested 3. Not so interested 4. Not at all interested

Q2 Are you interested in the following subjects? Please circle one on each line.

	Very much interested	Somewhat Interested	Not so interested	Not at all interested
1. Physics	1	2	3	4
2. Chemistry	1	2	3	4
3. Animals and Plants	1	2	3	4
4. The Human body	1	2	3	4
5. Astronomy	1	2	3	4
6. Geography	1	2	3	4

Q3 What is your plan after graduating from high school? Please circle one.

1. I want to go to college and major in science and/or medicine
2. I want to go to college and major in liberal arts.
3. I want to go to a vocational college.
4. I want to get a job.
5. I haven't thought about it.
6. Other

Q4 In what, if any, extracurricular activities do you participate in? Please circle all that apply.

1. Math club
2. Physics club
3. Chemistry club
4. Biology club
5. Geoscience club
6. Science technology club
7. Computer club
8. Manufacturing club such as Model making
9. Athletic club
10. Performing arts clubs which involve music and drama.
11. Literature related clubs such as The Book club or Creative writing club.
12. Visual arts clubs such as a Calligraphy club or Painting club.
13. I don't belong to any clubs or participate in any extracurricular activities.
14. Other

Q5 When you study science, do you like to do the following activities?

Please circle one on each line.

	Very much	Somewhat	Not so much	Not at all	Never done it
1. Observations or lab work at school.	1	2	3	4	5
2. Observation or research outdoors.	1	2	3	4	5
3. Giving presentations about science or the results of lab work.	1	2	3	4	5
4. Creating or using tools.	1	2	3	4	5
5. Observe plants and animals	1	2	3	4	5
6. Growing plants and or animals.	1	2	3	4	5
7. Watching the teachers demonstrate lab work.	1	2	3	4	5
8. Doing lab work on my own.	1	2	3	4	5

Q6 Have you ever done the following activities? Please circle only one on each line.

	Often	Sometimes	Seldom	Never
1. Watch TV shows about nature and science.	1	2	3	4
2. Read books and magazines about nature and science.	1	2	3	4
3. Research nature and science using the internet.	1	2	3	4
4. Visit the zoo, aquarium or a botanical garden.	1	2	3	4
5. Study at places such as The Science Center, a science museum or natural history museum.	1	2	3	4
6. Visit science research organizations, college laboratories or factories.	1	2	3	4

	Often	Sometimes	Seldom	Never
7. Study science outdoors at places like mountains, rivers, oceans, lakes, farms, etc..	1	2	3	4
8. Give presentations or write a report on my findings through observations and lab work	1	2	3	4
9. Do lab work on your own in a classroom or a science laboratory.	1	2	3	4
10. Watch teachers do lab work.	1	2	3	4
11. Discuss the results of observation and lab work with friends.	1	2	3	4
12. Talk about nature and science with your friends and family.	1	2	3	4
13. Use science knowledge to solve every day problems.	1	2	3	4
14. Participate in science contests	1	2	3	4

Q7 Have you ever done independent research on science outside of the class room and written a paper or report on the results. Please circle either “Yes” or “No”.

1. Yes → Go to Q7-1 and Q7-2

2. No → Go to Q7-3

If you answer “Yes” on Q7

Q7-1: In which grade did you do independent research on any area of science? Please circle all that apply. (If you don't remember the exact grade, please circle the approximate grade.)

1. 1st grade 2. 2nd grade 3. 3rd grade 4. 4th grade 5. 5th grade 6. 6th grade

7. 7th grade 8. 8th grade 9. 9th grade 10. 10th grade 11. 11th grade 12. 12th grade

Q7-2: Do you enjoy conducting independent research on any area of science?

1. Very much 2. Somewhat 3. Not so much 4. I don't like it

Please go to Q8

If you answer “No” on Q7

Q7-3 What are the reasons why you haven't conducted independent research? Please circle all that apply.

1. It was hard.

2. I did not have time.

3. I did not know what to do.

4. I was not interested in it.

5. I do not like science.

6. It has nothing to do with the exams to get into colleges. (continue to next page)

7. I did not have the necessary tools.
8. I have never had an assignment involving independent research.
9. Other (Please specify _____)

Q8 Is there anything regarding nature or science that has interested you in the past year?

1. Yes → Please go to Q8-1 and Q8-2
2. No → Please go to Q9

If you answer “Yes” on Q8

Q8-1 What was the area of science that interested you? Please circle up to 3 that apply.

1. Astronomy (Stars , constellations and planets, etc.)
2. Genes and Chromosomes
3. Climate change, greenhouse effect
4. History of the earth
5. Earthquakes or hurricane
6. Space exploitation
7. Nuclear waste
8. Air pollution
9. Energy crisis
10. Extinction of plants or animal
11. Shortage of water resources.
12. Other

Q8-2 Where did you get information about the items you chose on Q8-1? Please circle up to 3 that apply.

1. Internet
2. TV
3. Books
4. Newspapers and magazines
5. In class
6. At science centers or museums
7. Conversations with parents or friends
8. Other

Q9 What would you like to do in science class in the future? Please circle all that apply.

1. I want to do more observations and lab works.
2. I want to do observations and lab works that students come up with.
3. I want to hear from scientists.
4. I want to use the PC, TV and DVD.
5. I want to study at Science centers or science museums.
6. I want to study outdoors.
7. I want to learn what I can apply to everyday life.
8. Other

Q10 How much would you agree with the following statements? Please circle one on each line.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
1. It is important to learn science even though it has nothing to do with the exams to get into colleges.	1	2	3	4
2. We don't need science knowledge when we go out into the world.	1	2	3	4
3. I just want to know the result of experiments. We don't need to do lab work in science class.	1	2	3	4
4. I want to get a job that has something to do with science in the future.	1	2	3	4
5. Learning science is fun.	1	2	3	4
6. I want to learn science in more detail than what I learn at school.	1	2	3	4
7. I study and research what I am interested in about science on my own.	1	2	3	4
8. I don't have enough time to study and research on my own.	1	2	3	4
9. There is nothing interesting enough to study and research on my own.	1	2	3	4
10. When the result of lab work is different from what I expected, I try to find out the reason for the difference.	1	2	3	4
11. It is very important to study science in order to get the job that I want in the future.	1	2	3	4
12. It is very important to get a good grade in science so I can get into a college that I want to go to.	1	2	3	4

Q11 How much interest do you have in the followings ? Please circle one on each line.

	Very interested	Somewhat interested	Not so interested	Not at all interested
1. New scientific discoveries	1	2	3	4
2. Use of new technologies or discoveries	1	2	3	4
3. New medical discoveries	1	2	3	4
4. Educational issues	1	2	3	4
5. Space exploration	1	2	3	4
6. How to prevent damage caused by earthquakes, volcanos and typhoons.	1	2	3	4
7. Environmental pollution	1	2	3	4
8. Research on the life of plants and animals and their environment.	1	2	3	4

	Very interested	Somewhat interested	Not so interested	Not at all interested
9. Energy issues	1	2	3	4
10. Agricultural issues	1	2	3	4
11. Food safety	1	2	3	4
12. Computer and internet technologies	1	2	3	4

Q12 How much would you agree with the following statements? Please circle one on each line.

	Very much agree	Somewhat agree	Somewhat disagree	Disagree
1. Scientific and technological development is necessary to protect the earth and its organisms.	1	2	3	4
2. Scientific and technological development is necessary to create a peaceful society.	1	2	3	4
3. Science solves air and water pollution.	1	2	3	4
4. Scientific and technological development is necessary to treat AIDS and cancer.	1	2	3	4
5. National prosperity is often dependent on science and technology.	1	2	3	4
6. Modern people rely too much on science and technology.	1	2	3	4
7. Science is not very important in my daily life.	1	2	3	4
8. You will live a healthier life if you learn about science.	1	2	3	4

Q13 Some say that “Progress in science and technology could bring about negative changes in our daily life and work”. What do you think? Please circle one.

1. Very much agree
 2. Somewhat agree
 3. Somewhat disagree
 4. Disagree
- } → Please go to Q13-1

If you answered 1 or 2 on Q13

Q13–1 What do you think these negative changes could be? Please circle up to 3 that apply.

1. Environmental pollution.
2. Science and technology will be used to manufacture weapons.
3. People will lose faith in Religion
4. We will rely too much on machines. (continue to next page)

5. We will depend too much on drugs.
6. Depletion of natural resources.
7. Our lifestyles will change too fast.
8. Other

Q14 The followings are statements on the relationship between nature and humans. Please circle one answer that you agree with most.

1. We must obey nature in order to be happy.
2. We must coexist with nature in order to be happy.
3. We must use nature in order to be happy.
4. We must conquer nature in order to be happy.
5. I don't know.

© The following are questions are about yourself. Please circle one on each question.

F1 Your gender? : 1. Male 2. Female

F2 Your grade? : 1. 10th 2. 11th 3. 12th

F3 In a broad scheme, if you were to evaluate yourself, how would you rank yourself at your school?

1. Upper middle to top
2. Middle
3. Lower middle to Bottom

F4 If you were to evaluate yourself, how would you rank yourself in your science class?

1. Upper middle to top
2. Middle
3. Lower middle to Bottom

Thank you very much for your cooperation!