

## **Beyond Excellence-oriented Education towards Happiness-oriented Education**

- Korea's endeavor to improve its education through The 2015 Revised Curriculum -

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### **1. Korean society's growth and education**

For the past half century, Korea has achieved a rapid growth of economy and development of democracy at an unprecedented pace in the world's history. Korea's gross national income per capita soared from a two-digit figure right after the Korean War to more than USD 27,000 in 2015. Once at the receiving end of aid from the international community, Korea has finally achieved the movement to the giving end by deciding to accede to the OECD Development Assistance Committee (DAC) in 2009 and becoming its regular member in 2010. Despite all the difficulties, Korean people put an end to the military dictatorship and developed democracy and the story of democratic development is attracting the eyes of the global community.

Korea's educational achievements and Koreans' enthusiasm for education are cited by the global community as the driving engine behind such phenomenal growth and development. In 1996, Donald Johnston, the then OECD secretary-general, said the miracle on the Han River was nothing but the 'product of the educational level' of Koreans. In May of 2016, OECD released Better Life Index covering a combination of 11 domains and Korea ranked 6<sup>th</sup> out of 38 countries for competitiveness of education. The report also analyzed that education was the core factor in the development of the Korean economy.

In fact, Korea witnessed the universalization of elementary-school education in the 1960s; middle-school education in the 1970s; high-school education in the mid-1990s; and finally higher education in the 2000s. Today, among Koreans aged from 25 to 34, the ratio of higher education completion is more than 80% for both

males and females, which is the highest level in the world, and Korea is one of the countries that experienced the biggest generation-on-generation improvement of educational level.

When it comes to international comparison of students' educational achievements, Korea steadily ranked high in the Programme for International Student Assessment (PISA) from the first survey in 2000 until the last one in 2012 and, in particular, it was ranked highest in the area of creative problem solving.

Koreans agree with such opinions from outside and take pride from their achievements in the field of education. That is because they believe it was thanks to excellent human resources that a country with few natural resources was able to achieve economic growth and education was the driving force behind all of it. Well-established education system and the government's investment in the system played a great role in maintaining such high-level education but I think Koreans' great enthusiasm for education is the most powerful driving force.

Sometimes Koreans' education fever gives rise to something seen as an interesting social phenomenon in the eyes of foreigners. A good example is the College Scholastic Ability Test, a test taken for college entrance. The test day never goes without a great fuss. Most of workers go to office one hour later than usual and refrain from driving their own car. That is because they don't want the students who take the test to be stuck in traffic jam and be late for the test. Despite all such favors, if a student is found helplessly struggling to find a way to make it on time, the riot police will be called to give him a lift to the test place on time. What's more, during the English listening test session, airplanes are banned from taking off or landing across the nation so that students can take the test without disturbance (maybe in order to avoid complaints from students and their parents). Most of Korean citizens will participate in such favors for the test-takers without complaints. They think nothing of their inconvenience during the day and, rather, support and encourage the test-takers to do their best without disturbance.

The cultural climate that Koreans attach great importance to education and support students is a social tradition which dates back to our parents' generation or further to our grand parents' generation. Amid the poverty of the poorest

country in the world right after liberation from the Japanese colonial rule and then amid war fire of bombs and bullets during the Korean War, parents' passion for educating their children was not cooled down. If they could not find food for breakfast, they made their children drink water and encouraged them to go to school every morning. Tent classrooms during the Korean War and the three-shift-a-day system implemented to accommodate a large number of students with limited educational facilities are examples from the past that explains the long history of Koreans' enthusiasm for education. Such a cultural climate was passed down in Korea for a long time to become the main driving engine to support the Korean society.

## 2. Korean education's upsides and downsides

However, it is not that the excessive education fever has always brought about good results. Critics have pointed out social ills and problems on the downside of the high achievements and raised their voice urging that such ills and problems should be fixed.

One good example is the PISA result which shows both up and down sides. In the below table, Korean students rank high in academic achievement but lowest in learning interest. (The survey covered elementary schoolers from 50 countries and middle schoolers from 42 countries.)

Academic achievement	4 <sup>th</sup> grader in elementary school		2 <sup>nd</sup> grader in middle school	
	Achievement	Interest	Achievement	Interest
Mathematics	2nd	50th	1st	41st
Science	1st	48th	3rd	26th

Such a two-sided result shows that Korean students are tired of a heavy load of study to get a high academic achievement, which fundamentally sends students' desire to learn plummeting. (In Korea, there is a coined word '수포자/Supodja/'. '수포자' is an abbreviation for students who gave up on mathematics. They keep away from mathematics after losing interest in it due to a heavy burden of study. The number of '수포자's is on the increase.)

In fact, Korean children and youths are placed under an excessive burden of study. Class hours specified in the standard curriculum are: 6 hours for elementary school; 7.5 hours for middle school; and around 8 hours for high school. However, many of Korean students take classes at private institutions or get private tutoring after school for an average of 4 hours. Korean students are exposed to the longest learning hours in the world. Of course, private education has some advantages in that it helps an individual to develop talents and special characters, which cannot be fulfilled in the public education system. However, private institutions and private tutoring are chosen by Koreans in competitive mind state to outrun others so they are focused on prerequisite learning designed to get better grades. As a result, excessive private learning is disturbing the public education system itself. In addition, the fever for private education is spreading down to affect low-graders so some people are concerned that it will hinder young students from developing healthy mind and body.

Actually, in 2003, the UN Committee on the Rights of the Child pointed out that “Korea’s excessive early education and education for college entrance exams are infringing human rights of children and youths.” According to the report on Korea from the 2016 OECD Better Life Index, Korean youths spend an average of 48 minutes per day with their parents, which is the lowest level. Of course, a closer look should be taken to figure out how this index was generated through what process but we cannot just ignore this figure as baseless.

The fever for private education in Korea is sometimes explained by applying the game theory. One interesting explanation is that the prosperity of private education in a society where educational credentialism is prevalent is a result of a so-called ‘private tutoring game’ where the following factors combine and spread: parents’ expectations about their children; anxiety of students and their parents; and parents’ sense of exemption from responsibility. It is nothing but the prisoner’s dilemma<sup>1)</sup> where you have no choice but to do it since others are doing it (or will

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1) It is a theory that, if two suspects are separately interrogated, one will be worried about the possibility that the other will accuse him so he will exaggerate the other’s crime. If the suspects collude with each other, they may claim their innocence but most of the time they cannot trust each other and they both end up with the heaviest sentence. The theory indicates the ironic situation where people may pursue their children’s happiness all together but due to anxiety amid limitless competition all of them have to endure

definitely do it).<sup>2)</sup> In order to solve such an ill, the Korean governments have poured various measures into their attempts to reduce private education. However, such efforts failed to bring about any perceivable change or outcome and limitless competition and the rage for private education are still plaguing Korea as an ill resulting from its excessive fever for education.

Another problem that awoke people to the need for a large-scale revamp of the Korean education was related to the regret that college education does not meet the level of social productivity. According to the college education indexes published by the Swiss International Institute for Management Development (IMD) in 2006, Korea ranked 4<sup>th</sup> out of 61 countries in the ratio of higher education completion. However, it ranked in the range of 50-59 in the index indicating how well college education meets the needs of the society. There are many other indexes that reveal the problems of college education. For example, in 2006, a survey asked the HR managers of 543 companies whether the work performance of the new recruits meet the needs of the company and only 2% answered that it nearly does and a surprising 60% answered that it somewhat does not or it is far from meeting their needs. Focusing on the fact that, difficult as it is to enter a college, colleges are failing to produce human resources that meet the society's needs, critics are awakeningly raising their voice and urging a sincere reconsideration of the social roles and duties that education should play.

### **3. Pursuit of educational revamp**

Against this background, Korea is now taking new steps to take over the fruits of the education fever and to solve the downside problems. It is trying to transform the paradigm so that it can go beyond the best results that the Korean education has achieved so far and make all the people happy through education.

In its first step, in order to achieve an education system which helps students pursue happiness and fundamentally meet the society's needs, Korea set the

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pains.

2) Special planning team for national administration briefing, *40 Years of Korean Education*, Hans Media, 2007, p. 34.

following goals: ① to nurture dreams and talents ② to meet the demand of the society ③ to realize a society where competency is the first criteria. And in order to achieve the goals, six major educational tasks are now being carried out: 'spread of the free term system'; 'normalization of public education'; 'reform of local education finance'; 'nurturing of human resources to meet the demand of the society'; 'expansion of work-study program'; and 'promotion of first getting a job and later entering school'. Among the tasks named above, I will discuss in details the free term system, work-study program and promotion of first getting a job and later entering school, which are directly related to the curriculum of elementary and middle schools.

### **1) The Free Semester**

The Free Semester is where one term is comprised of participation classes including discussion and practice and career exploration activities. Being implemented in middle school curricula, it seeks to make students experience various activities. Among others, the most outstanding feature of this system is that, during the free term, students do not need to take written tests that they dislike the most.

In the morning, students take the usual classes like Korean, English, mathematics, social studies, science, manual training/home economics, physical education and moral education. The classes are not conducted in the typical one-way lecture style but they are comprised of discussion, experiment/practice, project execution and the like so that students lead and participate in the class all the way through.

And, in the afternoon, students participate in free-term activities like career exploration activities, theme-of-choice activities, art/sports activities, and club activities. Career exploration activities help students to explore their aptitudes and talents and design their own future through career test, guest lectures, job shadowing programs, workplace experience programs and the like. Theme-of-choice activities induce motivation for learning and provide opportunities for deep learning by implementing systematic in-depth programs on themes that appeal to the students like the constitution, economy/finance, discussion of

classics, experiential mathematics and STEAM science. Art/sports activities help students to find their aptitudes and potentials by participating in dramas, musicals, orchestra performance, design and soccer. Club activities are designed to satisfy the students' common interest like literary discussion, scientific experiment and astronomical observation. The system was piloted in some model schools starting from 2013 and it is now implemented in all the middle schools across the nation starting from 2016.

## **2) The revised curriculum to nurture talents capable of originality and convergence**

In 2015, the curriculum was revised to change the fundamental educational paradigm so that all the students can cultivate basic knowledge of humane studies, social studies and science and technology and grow into talents capable of originality and convergence while equipped with humane imagination and scientific creativity. (See the next chapter for more details.)

## **3) Spread of Work-Study Dual System**

Work-Study Dual System is a system designed to change the schooling structure and social perceptions concentrated on college entrance. It is an educational system where schools and companies cooperate. At school, teachers are in charge of theory learning and basic practice while, at work, experienced workers are in charge of on-the-job training and advanced practice. Students can learn and earn at the same time while going back and forth between school and work. Starting from 2015, 'industry-school integrated apprenticeship schools' have been run to provide vocational education where students go back and forth between school and work. (9 schools in 2015 increased to 60 in 2016 and 203 have now submitted applications) And a project to promote high school-junior college integrated education (Uni-Tech) has been launched to provide customized vocational training oriented to job getting for five years of high school and junior college and the project is now supporting 16 participants (pairs of specialized vocational high school and junior college). The government grants to the company KRW 200,000 ~ 400,000 per learning worker (student) and students can get a certificate recognized

by the government and the industry once they complete the learning-training program and be successful in evaluation. After the learning-training program, if they are hired (get a job) as a worker, they get the same treatment as regular workers. In addition, the students can get exemption from military service, which is a great incentive in the Korean society where military service is mandatory. Once hired, they are covered by the nation's four major social insurances and get all the benefits guaranteed under the Korean labor-related laws like the Labour Standards Act.

In order to support this, the National Competency Standards (NCS)<sup>3)</sup>-based curriculum will be applied to all the specialized vocational schools and meister high schools and, as for junior colleges, NCS-based curriculum will be applied to 100 junior colleges by 2017 in connection with the project to nurture specialized junior colleges.

#### **4) Promotion of Employment First, Advancement to University Later**

The 'Employment First, Advancement to University Late' system is where, if one gets a job right after graduation from high school, he can enter college whenever he wants. The purpose of the system is to cultivate the culture that people get a job right after high school by providing job-oriented vocational education that suits the students' aptitudes and talents and establish foundations for life-long learning.

The system is helping adult learners who have a job to get college education under less burden of time and tuition by abolishing the time limit for degree completion and enabling intensive completion of a term within four weeks.

In particular, for each industry, the relevant government department will support specialized vocational high schools, especially focusing on growth-engine industries or other areas suffering a shortage of manpower, and designate additional meister

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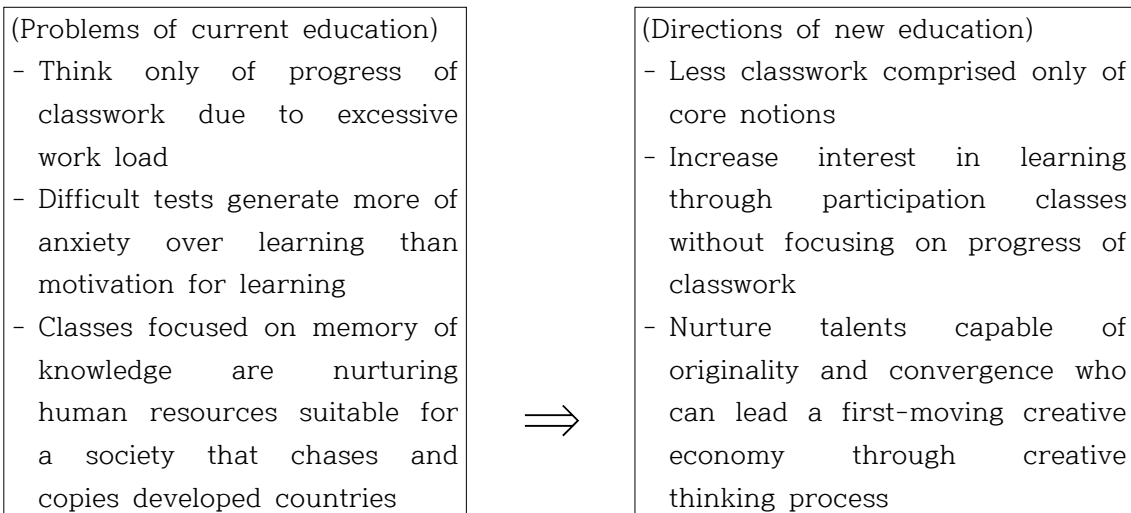
3) The National Competency Standards (NCS) systemized levels of knowledge, skills, attitudes and etc. required to conduct duties at work so as to meet the relevant government standards. It can be used in various ways. First of all, it enables verification of on-the-job competency, it can be used in introducing, designing and re-designing national technical qualification items. Next, during an education-training program, the NCS can be used to revise curriculum and develop training courses. Companies can use the NCS as a checklist for recruiting, promotion and relocation or as job descriptions.



high schools (50 in total by 2016) in the fields that have competitive advantages like software and agricultural-biological resources. In addition, in order to give students more opportunities of vocational education, for middle school students, the special screening system for entering specialized vocational school will be expanded for those students who want to get a job and the ‘commissioned vocational education for ordinary high schools’ program has been expanded so that students of ordinary high schools who changed their career path after entrance can get vocational education. Business agreements are being actively executed with the Korea Industrial Complex Corp., the Korea Federation of Small and Medium Business, and etc. to promote job getting right after high school. In connection with the aforementioned program, if a college is involved like an academic department that signed up for work-study program, the students can earn the relevant degree.

#### 4. Main principles and directions of the new curriculum

In December of 2015, the Korean Ministry of Education announced a new curriculum on the foundations of the basic directions discussed above. The fundamental aims of the new curriculum be illustrated as follows:



The following is an overview of the new curriculum:

### **1) Cultivation of humane imagination and basic knowledge of social studies, science and technology**

The goal is to grow students into citizens who practice the value of respect for human dignity; respect diversity; and be thoughtful to others. The fundamental objective is to nurture the ability to see the world from the perspective of basic humane knowledge and understand humans. The focus of the literature education will be shifted from theory to emotion and communication. And education of dramas will be promoted.

It also attaches importance to education of basic knowledge of science and technology so that students can consider and solve personal and social problems in a reasonable and scientific manner on the basis of scientific knowledge about nature, man, society and civilization. Science courses will be re-structured under big themes rather than elaborated in details under small topics to cultivate convergent thinking. In particular, in high schools, science classes will put emphasis on experiment and exploration through the new subjects, 'integrated science' and 'scientific exploration and experiment.'

The new curriculum cultivates sensitivity and emotion in students and reinforces character education like cooperation and consideration by promoting art and physical education. Education of dramas is newly emphasized in the hope of expanding experience understanding, sympathizing with and considering others by systematically providing drama education throughout elementary, middle and high schools. Korean classes for 5<sup>th</sup> to 6<sup>th</sup> graders will include a large unit for dramas mainly comprised of activities and middle school Korean classes a small unit for dramas and, in the high school curriculum, the new subject 'drama' will be included as a general elective in the art subject group to allow experience-oriented drama education. In addition, there will be more opportunities for physical education and music and the fine arts education. School sports clubs will be promoted and one sport for one student scheme will be supported. Every student will be encouraged to develop artistic sensitivity through expression, appreciation and criticism so that they can enjoy art activities.

### **2) The revision of the curriculum centered around key competences**

The curriculum centered around key competences is a measure to re-structure the conventional curriculum focusing on knowledge and one-way delivery and nurture talents who are suitable for the post-industrial globalized modern society. This is a global trend. In 2003, OECD and some major countries conducted the OECD DeSeCo(Definition and Selection of Competence) project.<sup>4)</sup> Following this project, countries have focused on key competences and developed various key competences that are suitable for their own society. Korea has gone along with the stream of change as well and presented key competences in the new curriculum. In the outline appear the following six key competences:

- . Self-management - the ability to lead one's own life with a sense of self-identity and self-confidence and the basic ability and aptitude required for his own life and career path
- . Capability to process knowledge data - the ability to process and utilize knowledge and data in various fields in order to reasonably solve problems
- . Capability to think creatively - the ability to convergently utilize knowledge, technology and experience from various professional fields on the basis of extensive basic knowledge to create new things
- . Capability for aesthetical sensitivity - the ability to discover and enjoy the meaning and value of life on the basis of sympathetic understanding of humans and cultural sensitivity
- . Capability to communicate - the ability to effectively express one's own thoughts and emotions in various situations and listen to and respect others' opinions
- . Capability for community - the ability to actively participate in the community's development with the values and attitudes required of the members of local, national and global communities

The new curriculum defined specific competences belong to each subject on the basis of the key competences presented in the overview and suggested

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4) This project suggested as future key competences: using tools interactively; interacting in heterogeneous groups; and acting autonomously. (OECD, The definition and selection of key competence([www.oecd.org/edu/statistics/deseco](http://www.oecd.org/edu/statistics/deseco)))

achievement criteria about the knowledge, skills and attitudes that students need to acquire in order to successfully get equipped with such competences. Achievement criteria means what students should know and should be able to know as a result of learning. Achievement criteria reflecting capability are a kind of performance criteria and set standards not about knowledge acquirement but about what students should be able to do with their knowledge.

What is emphasized in capability cultivation, the result of learning should be able to help students to effectively deal with tasks and jobs that they will face in their later learning or life. However, it is not that any research has clearly revealed how specific competences can be effectively cultivated through what kind of learning strategies in each subject. However, emphasis is placed on learning activities centered around performance and exploration so that students can acquire knowledge and skills in a certain context and apply them to new situations.

### **3) Pursuit of happiness-oriented education through optimization of study load and introduction of participation classes**

Originally, this was pursued to relieve students from excessive study load but its fundamental goal is to optimize study load by confining it to key notions and principles of each subject which can be transferred and expanded in various ways while trimming away fragmentary knowledge. Through the so-called 'less and more' teaching method, it is aiming to promote transfer of learning and in-depth learning so as to extend thinking power and improve the quality of learning.

As for classes, efforts are being made to improve classes so that students' voluntary participation is maximized through discussion, cooperative learning, exploratory learning and etc. and students take interest and enthusiasm in learning by themselves.

### **4) Provision of NCS-based vocational education to realize a society where competency is the first criteria.**

The National Competency Standards (NCS) systemized standards of knowledge, skills, attitudes and etc. required to conduct duties at work so as to meet the

relevant government standards. The establishment of a NCS-based curriculum is part of efforts to link learning, qualifications and work and resolve the mismatch of competences between school and work. To that end, the Sector Councils (SC) led the development of NCS-based learning module, which serves as the basis for the reform of curricula in specialized vocational schools and junior colleges to meet the needs from the field. NCS-based curriculum was put in operation in junior colleges in 2015 and will be introduced in all the specialized vocational schools within this year. To that end, the Korean educational authorities are planning to train teachers; support study meetings; and consult schools to reinforce the teachers' capability to operate the new curriculum.

## **5. Conclusion**

The Korean education has played the important role as the driving engine behind the industrial growth and made a great contribution to the national development and its world-class level of learning achievement earned high reputation and attracted attention from the global community. However, the future society does not need talents who simply have and memorize a lot of knowledge. The accelerated informatization suggest the need for talents who can create new values based on core knowledge. Fundamentally, the quality, rather than the quantity, of learning experience needs to be increased. On the other hand, emphasis is placed on such a sense of values and philosophy that can critically understand science and information technology and pursue a humane life and the abilities of consideration and sympathy are required to control social conflicts.

In response to such demands of the times, Korea put up the catch words 'creativity and nurturing of convergent talents.' In other words, the new curriculum is expecting students to develop the inclination and ability to connect various elements that they learned and apply them in several situations. Fundamentally speaking, the focus shifted from 'what students will learn from the education' to 'who the education will induce students to become.'

However, there are problems to be solved: inconvenience within the academic circles about the changes to the conventional framework of curriculum; parents'

excessive enthusiasm for education of their children and intensified competitive system; and dispute over the selection of key knowledge (in particular, historical interpretation that causes left-right conflicts). Solving such problems requires social agreement and mediation. There are several other urgent problems as well: key competences for each subject should be specified; teaching-learning methods should be improved to reinforce students' competences; reasonable criteria should be established for process-oriented evaluation after seeking social agreement; and a cooperative system should be established between in and out of the educational circles to solidify the footing of the NCS.

(Reference)

&lt;Table 1&gt; Elementary School

Subject/Grade		1st~2nd grade	3rd~4th grade	5th~6th grade
Subject (group)	Korean	Korean 448	408	408
	Social studies / moral education		272	272
	Mathematics	Mathematics 256	272	272
	Science / practical arts	Disciplined life 128	204	340
	Physical education	Intelligent life 192	204	204
	Art(music/fine arts)		272	272
	English	Pleasant life 384	136	204
	Sub-total	1,408	1,768	1,972
Creative experience activities		336 Safe life (64)	204	204
Total class hours by grade group		1,744	1,972	2,176

- ① In this table, one (1) class hour basically lasts 40 minutes but it can be flexibly adjusted depending on climate, season, development level of students, characteristics of learning contents, circumstances of school and etc.
- ② The class hours assigned to each grade group/subject (group) indicates standard class hours per two years where one year consists of 34 weeks.
- ③ The total class hours by grade group indicates the minimum class hours.
- ④ Practical arts is only included in the class hours of science/practical arts for 5th~6th grade.

&lt;Table 2&gt; Middle School

Subject/Grade		1st~3rd grade
Subject (group)	Korean	442
	Social studies(including history) / moral education	510
	Mathematics	374
	Science/manual training/home economics/information	680
	Physical education	272
	Art(music/fine arts)	272
	English	340
	Elective	170
	Sub-total	3,060
Creative experience activities		306
Total class hours		3,366

- ① In this table, one (1) class hour basically lasts 45 minutes but it can be flexibly adjusted depending on climate, season, development level of students, characteristics of learning contents, circumstances of school and etc.
- ② The class hours assigned to each grade group/subject (group) indicates standard class hours per three years where one year consists of 34 weeks.
- ③ The total class hours indicates the minimum class hours for three years.
- ④ The class hours of information is 34 hours as a rule.

<Table 3> Ordinary High School

	Subject classification	Subject (group)	Common subjects (units)	Compulsory credit units	Autonomously allocated credit units
Subject (group)	Basis	Korean	Korean(8)	10	Allocation after considering students' aptitudes and career path
		Mathematics	Mathematics(8)	10	
		English	English(8)	10	
		Korean history	Korean history(6)	6	
	Exploration	Social studies <small>(including history/moral education)</small>	Integrated social sciences(8)	10	
		Science	Integrated science(8) scientific exploration and experiment(2)	12	
	Physical education/art	Physical education		10	
		Art		10	
	Living/cultural studies	Manual training/ home economics/ second foreign language/ Chinese writing/ cultural studies		16	
	Sub-total				
Creative experience activities				24(408 class hours)	
Total credit units				204	

- ① One credit unit indicates 17 class hours each of which lasts 50 minutes.
- ② One (1) class hour basically lasts 50 minutes but it can be flexibly adjusted depending on climate, season, development level of students, characteristics of learning contents, circumstances of school and etc.
- ③ Common subjects may be reduced by up to 2 units. However, Korean history should be six or more units spreading over two or more terms.
- ④ Credit units of scientific exploration and experiment may not be adjusted except for in case of science/physical education/art high schools where it can be flexibly adjusted depending on circumstances of school.
- ⑤ Compulsory credit units indicate the minimum credit units for the subject (group) including the units of common subjects. In case of special high schools and autonomous private high schools, 5 or more units for art and 12 or more units for living/cultural studies are recommended.
- ⑥ The sum of credit units of the subjects classified as 'basis' may not exceed 50% of the total credit units.
- ⑦ The credit units of creative experience activities indicates the minimum credit units and the number in parenthesis indicates the credit units converted into class hours.
- ⑧ The total credit units indicates the minimum credit units required to be earned for three years in high school.



<Table 4> Specialized Vocational High Schools and Industrial  
Needs-Customized High Schools

	Subject classification	Subject (group)	Common subjects (units)	Compulsory credit units	Autonomously allocated credit units
Subject (group)	Basis	Korean	Korean(8)	24	Allocation after considering students' aptitudes and career path and industries' needs
		Mathematics	Mathematics(8)		
		English	English(8)		
		Korean history	Korean history(6)	6	
	Exploration	Social studies (including history/ moral education)	Integrated social sciences(8)	12	
		Science	Integrated science(8)		
	Physical education/art	Physical education		8	
		Art		6	
	Living/ cultural studies	Manual training/ home economics/ second foreign language/ Chinese writing/ cultural studies		10	
	Sub-total				
Special Subjects II	17 subjects (groups)		86		
Creative experience activities				24(408 class hours)	
Total credit units				204	

- ① One credit unit indicates 17 class hours each of which lasts 50 minutes.
- ② One (1) class hour basically lasts 50 minutes but it can be flexibly adjusted depending on climate, season, development level of students, characteristics of learning contents, circumstances of school and etc.
- ③ Common subjects may be reduced by up to 2 units. However, Korean history should be six or more units spreading over two or more terms.
- ④ Compulsory credit units indicate the minimum credit units for the subject (group)
- ⑤ The credit units of creative experience activities indicates the minimum credit units and the number in parenthesis indicates the credit units converted into class hours.
- ⑥ The total credit units indicates the minimum credit units required to be earned for three years in high school.

<Table 5> High School General Subjects

Subject classification	Subject (group)	Common subjects	Electives	
			General electives	Career-specific electives
Basis	Korean	Korean	Speech and writing, reading, language and media, literature	Practical Korean, advanced Korean, reading of classics
	Mathematics	Mathematics	Mathematics I, Mathematics II, differential and integral calculus, probability and statistics	Practical mathematics, geometry, economic mathematics, exploration of mathematical problems
	English	English	English conversation, English I, English reading comprehension and writing, English II	Practical English, English-speaking cultures, career-specific English, reading of British and American literature
	Korean history	Korean history		
Exploration	Social studies (including history/moral education)	Integrated social sciences	Korean geography, global geography, world history, east Asian history, economy, politics and laws, social studies and culture, living and ethics, ethics and ideologies	Travel geography, exploration of social problems, classics and ethics
	Science	Integrated science/scientific exploration and experiment	Physics I, chemistry I, life science I, earth science I	Physics II, chemistry II, life science II, earth science II, science history, living and science, convergent science
Physical education/art	Physical education		Physical education, exercise and health	Sports and living, exploration on physical education
	Art		Music, fine arts, drama	Musical performance, musical appreciation and criticism, practices in creative fine arts, fine arts appreciation and criticism
Living/cultural studies	Manual training/home economics		Manual training/home economics, information	Agriculture and life science, general engineering, creative business administration, maritime culture and technology, home science, general intellectual property
	Second foreign language		German I Japanese I French I Russian I Spanish I Arab I Chinese I Vietnamese I	German II Japanese II French II Russian II Spanish II Arab II Chinese II Vietnamese II
	Chinese writing		Chinese writing I	Chinese writing II
	Cultural studies		Philosophy, logic, psychology, pedagogy, science of religion, career path and vocation, health education, environment, practical economics, essay	

- ① Basically, electives are given 5 credit units.
- ② Electives, except for cultural studies, may be increased or reduced by up to 2 units.
- ③ Cultural studies and career-specific electives may be increased or reduced by up to 3 units.
- ④ Physical education must be allocated to every term, provided that, in case of specialized vocational high schools and industrial needs-customized high schools, it can be flexibly adjusted for a school year that includes field practice.

● High school subjects are largely categorized into general and special subjects. Special subjects are broken down into 22 groups (science, physical education, art, foreign language, international relations, business administration and finance, public health and welfare, design, beauty tourism, food and drink and cooking, construction, machinery, materials, chemical industry, textile and apparel, electrics and electronics, information technology, food processing, printing and publication, environment and safety, agriculture, forestry and fisheries, ship navigation), each of which has their own subject composition but the details are not listed here on account of limited space.