

# OECD/Japan Seminar

- Japan's Educational Reform for 2030 -

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# The features Japanese Education and its change towards 2030

## ○The features of Japanese National Curriculum Standards

- Comprehensive Lessons + Integrated Studies (総合的な学習の時間)
- Special Activities (特別活動)
- Club Activities (クラブ活動)

## ○The Importance of PBL (Project Based Learning)

- Persons concerned,
- Conflict , Dilemma , Trade off
- Collaboration with “role models”

EX: OECD Tohoku School ⇒ Establishment of Futaba Future School

## ○Graduation from “Modern Society” (“卒”近代)

- Civilization of Mass Production, Mass Consumption, Mass Disposal
- Definition of “Happiness, Well Being” has changed
- The advent of AI and Robots has dramatically changed the task and will have created new role as civil

# 21 CENTURY

- Internet of Things , Artificial Intelligence, Robotics
- Acceralation of Uncertainty,
- Capability to Suvive over Unexpectation
- Complexity , Diversity
- Dilemma, Conflict, Trade off
- 
- Cf. Prof KATADA Gunma UNIV. Disaster Educaion
  - Dont depend too much on Manual
  - Do the best without fearing mistake
  - Take the lead without waiting instruction



Judge(True Good Asethtic)

Deliberation

Communication, Collaboration, Creation

Collaborative Creative Artwork

Collaborative Problem Solving

Global Competency

# OECD Education 2030 Project

## OECD International Working Group 2030

OECD Member States' Multilateral Framework  
(including Japan)

Knowledge  
sharing 

### OECD/Japan Joint Initiative Project

Policy Dialogue



Joint Research  
(Tokyo Gakugei University)



Creative Innovation Schools 2030



Deep Learning Project  
(1,000 schools project)

Other efforts and  
implementations



# Tokyo Gakugei University in collaboration with the OECD

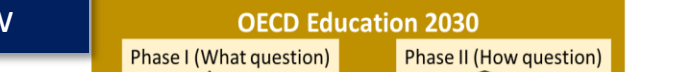
## OECD/JAPAN JOINT RESEARCH AND DEVELOPMENT OF NEXT-GENERATION TEACHING

### Project Overview

Videos: development of Skills



Class examples in selected subjects.



**Propose a 21<sup>st</sup> century teaching approaches**  
How 21<sup>st</sup> century competencies should be fostered for 2030 world?

Examine the relationship between the competencies fostered in Japanese education and 21<sup>st</sup> century competencies proposed in the OECD EDU2030

**HOW are competencies fostered in Japanese Classes?**

**WHAT competencies are fostered in Japanese Education?**

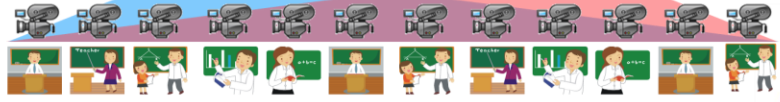
Analysis on recorded class practices

Analysis on recorded class practices

**Development of skills in each subject**

**Development of emotional qualities in each subject**

Video recording 13 subjects



Class practices in Japanese elementary and secondary schools

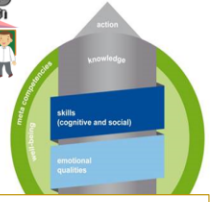
**Solid academic competencies**

**Well-rounded character**

National curriculum standards of Japan

**Japanese education**

Japanese education has elements of 21<sup>st</sup> century education



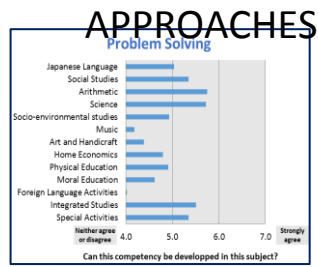
Videos: development of Emotional qualities



Class examples in selected subjects.

### Competency Survey

Competencies developed in Japanese subject educations. (Survey from 18 pedagogists and 500 teachers)



### Skills

- Critical thinking
- Problem solving
- Sensitivity, expression, and creativity
- Collaboration
- Communication
- Forethought
- Meta cognition

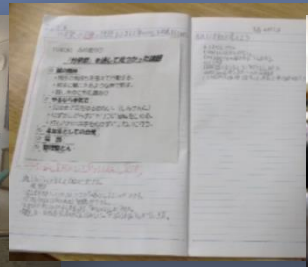
### Emotional qualities

- Mind to love
- Mind to mutual cooperation
- Curiosity and inquisitive mind
- Acceptance, sympathy, and respect
- Awareness of better society
- Mind trying to be right
- Ability to overcome difficulties
- Aspiration

### Various Data and Practice Examples



Interviews



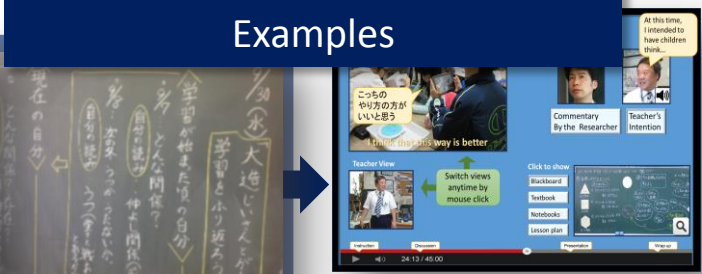
Notebooks



Class Videos

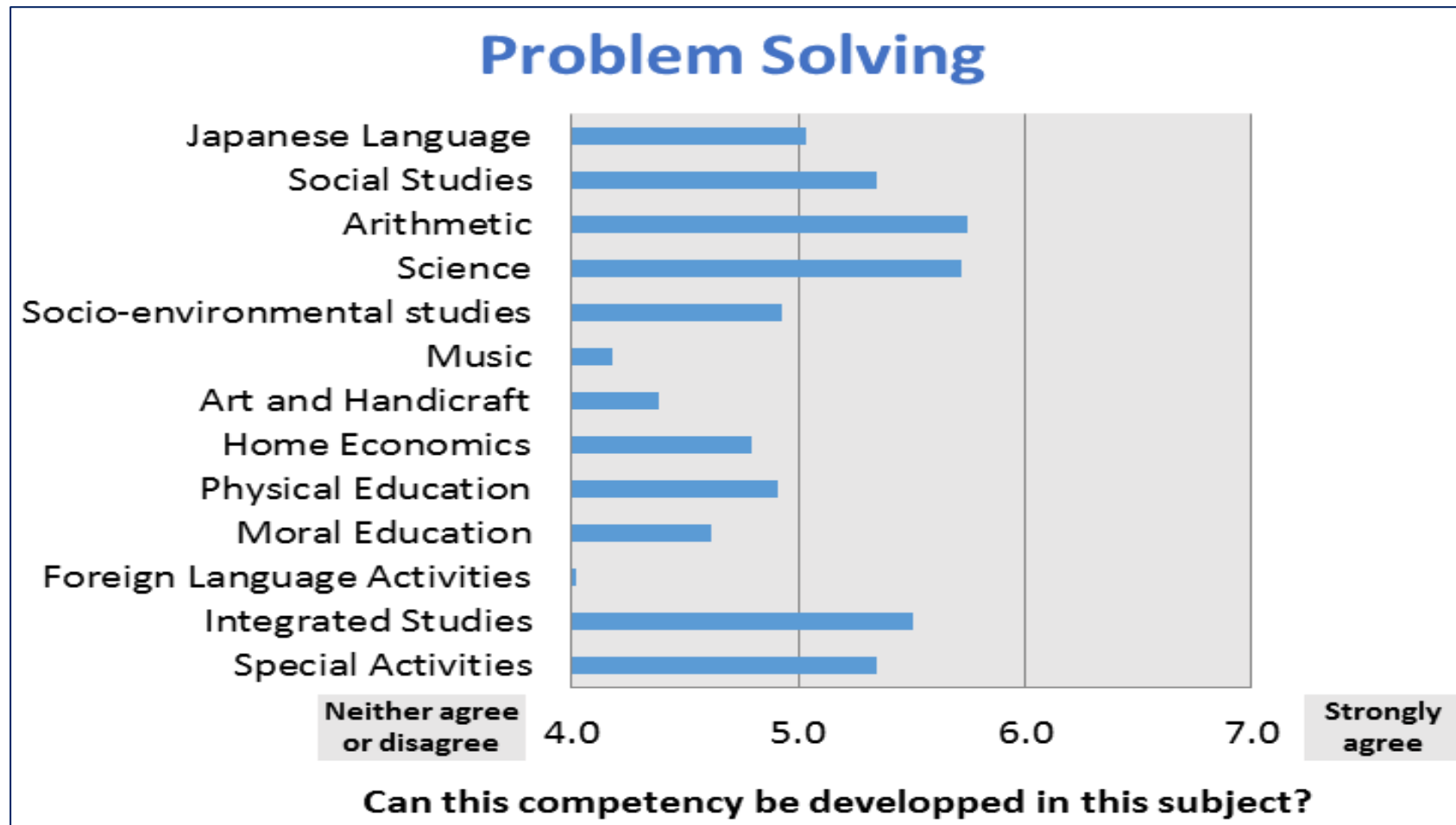


Blackboards



Integrated Videos for Practice Examples

**Competencies developed in Japanese subject educations.  
(Survey from 18 pedagogists and 500 teachers)**



# Skills

- Problem solving
- Critical thinking
- Collaboration
- Sensitivity, expression, and creativity
- Communication
- Forethought
- Meta cognition

# Emotional qualities

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- Mind trying to be right

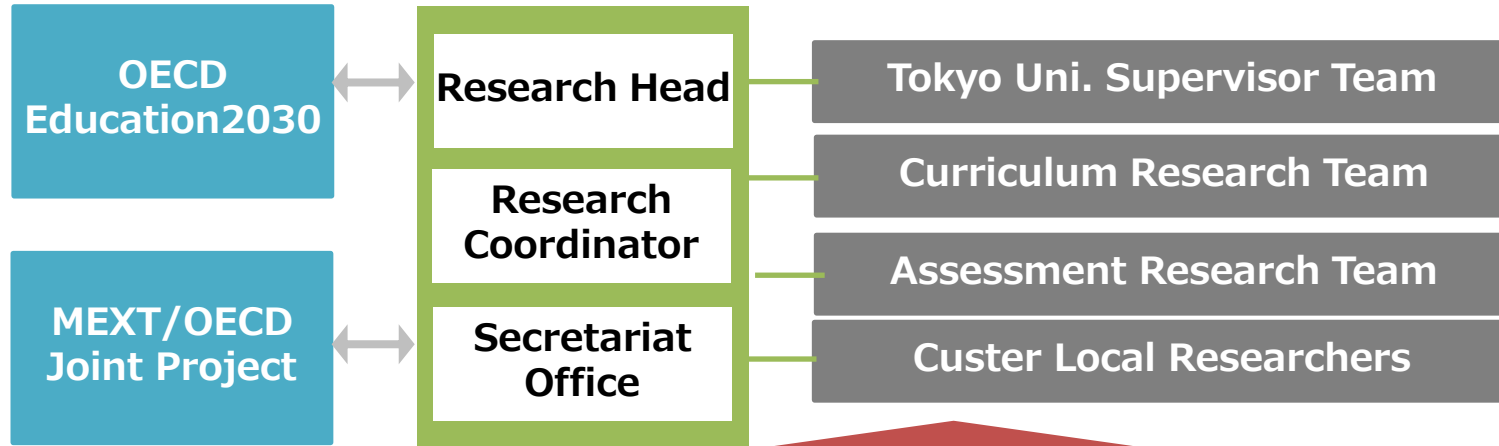


# Japan Innovative Schools Network supported by OECD

## Innovative Schools Field Practice & Research

Clusters which proceed global project based learning are being organized.

Domestic and international researchers work on researches based on field evidence.



Think Green		Go Global		Skills · Migration			tbc		tbc	
Tohoku Cluster (Fukushima Uni)	Germany (TBC)	Hiroshima Cluster (Hiroshima Prefectural BoE)	Philippines	Hawaii/USA	Wakayama Cluster (Hidaka HS)	Turkey (MEF)	Canada (TBC)	Fukui Cluster (TBC)	Singapore (TBC)	Kosen Cluster (National Institute of technology)

❖ A school in Estonia has decided to participate in ISN.

❖ We are exploring the possibilities of participation of schools in France.

主体性・多様性・協働性  
学びに向かう力  
人間性 など

どのように社会・世界と関わり、  
よりよい人生を送るか

どのように学ぶか  
(アクティブ・ラーニングの視点から  
の不断の授業改善)

学習評価の充実  
カリキュラム・マネジメントの充実

「確かな学力」「健やかな体」「豊かな心」を単独でとらえるのではなく、統合的にとらえて構造化することを目指す

何を知っているか  
何ができるか

個別の知識・技能

知っていること・できる  
ことをどう使うか

思考力・判断力・表現力  
等

# Importance of “Active Learning”

**How we engage in the society  
and the world, and live a better  
life**

**How we learn**

Active Learning

Curriculum Management

**What we know  
What we can do**

**How we use  
what we know and  
what we can do**

# Examples of “Active Learning” in high schools

## Collaborative learning (jigsaw method)



### [ Knowledge construction-type jigsaw ]

Expert

Jigsaw

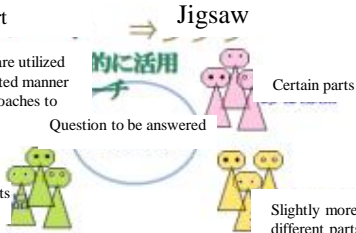
Three parts are utilized in an integrated manner in their approaches to the question.

Question to be answered

Certain parts

Different parts

Slightly more different parts



### World History

One theme are divided into plural viewpoints, and each group in charge of each viewpoint gives an explanation. The explanations are integrated through discussion to find out a better answer. The process leads students deeper understanding.

## Inquiry-based learning in Super Science High Schools



### Frontier Science I · II · III

<Cycle of a unit>

Preparation → Field work, Lecture → Inquiry activities → Presentation and Evaluation

Logical thinking, creativity and originality, ability inquire scientifically and skills to express are developed.

## Inquiry-based learning in Super Global High Schools



### Global Inquiry

Students investigate current situations and problems of the local industry and traditional crafts in Japan and abroad, and explore the possibility of a global expansion.

The foundation of critical thinking, judgement, and practical communication skills is developed.

## Experiential learning in “challenge schools”



### Life Practice

Students learn how to protect themselves from crime, skills of writing letters of thanks and traditional etiquette.

Knowledge and skills necessary to live independently are acquired through solving problems in everyday life.

## Project-based learning in vocational high schools



To achieve low-cost and year-round cultivation of vegetables, students conduct joint research on “no-heating cultivation of winter vegetables” by using solar thermal energy and improving the soil with the use of biomass materials. Students also did harvesting and sale of vegetables.

## Utilization of ICT



Students record the process and the course of chemical experiments and observations using tablet PCs. They are used to communicate, compare and share the results.

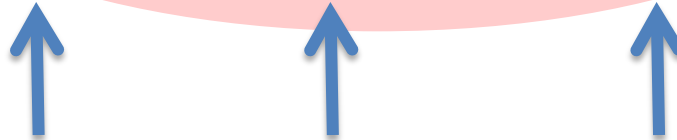
## Three aspects of “Curriculum Management”

- 1) To articulate each subject and effectively organize the curriculum without isolating the individual subjects.
- 2) To establish a cycle of management: organization , implementation, evaluation, and improvement of the curriculum.
- 3) To utilize various resources such as local support staff, ICT facilities, etc., and effectively combine them with the educational content.

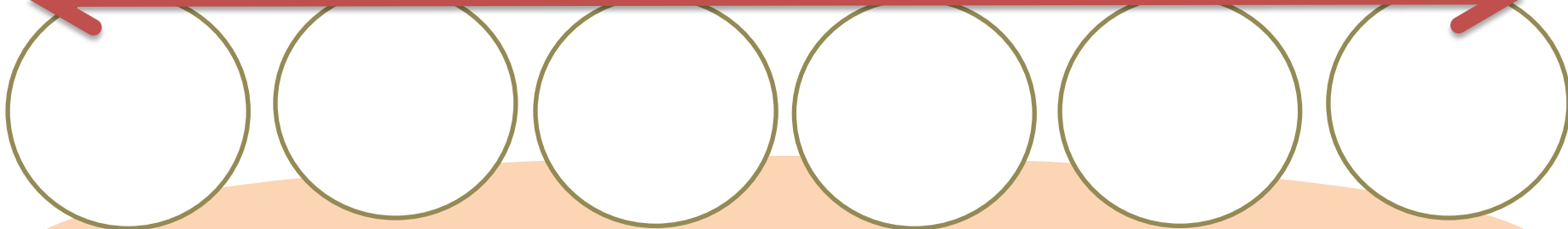
# Interrelation between studies in Subjects and Integrated Studies

World

Generic competencies  
that can be used in the  
various context of the real  
world



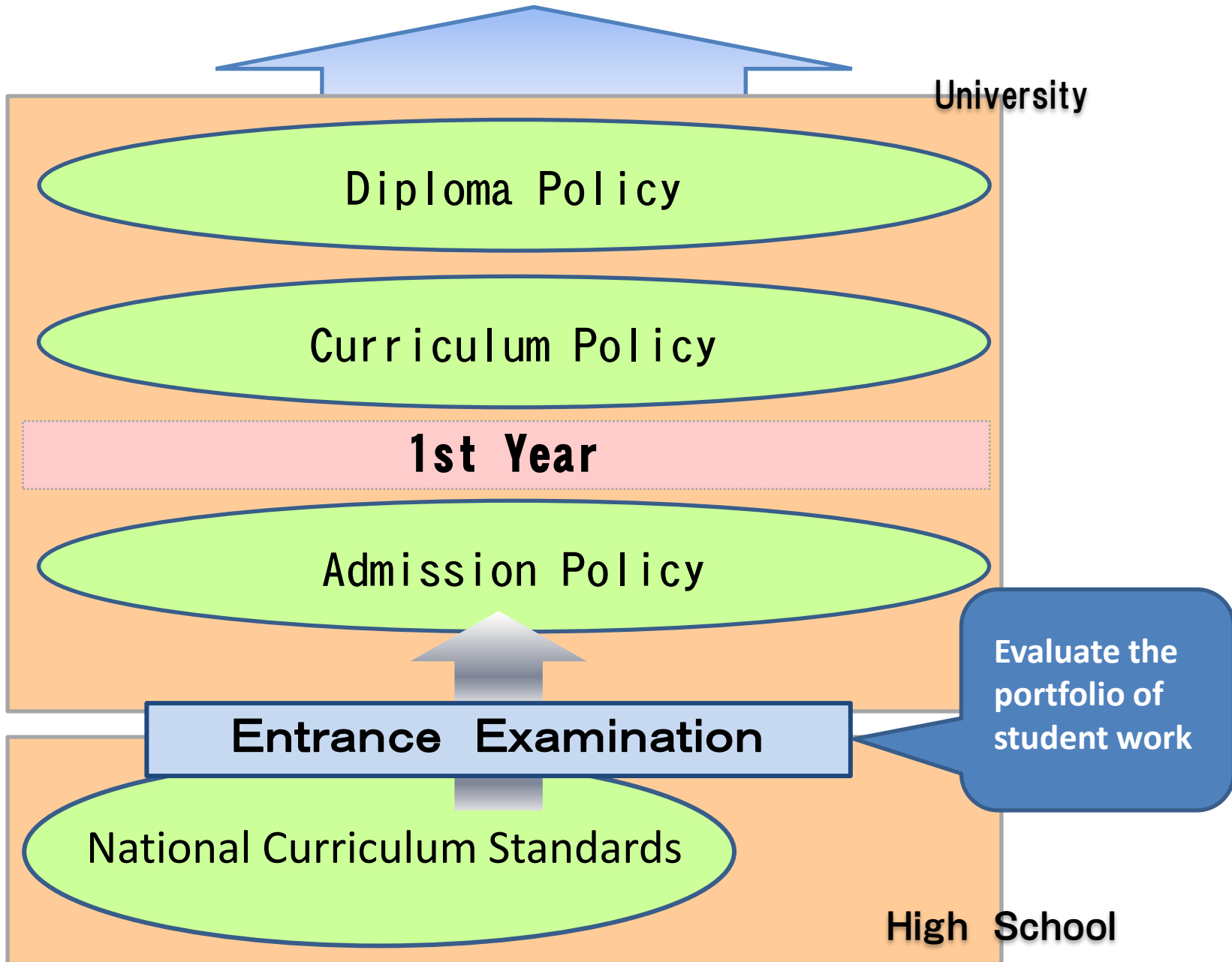
Cross-curricular learning through the Integrated Studies



Various abilities acquired in the context of each subject

School

# The Reform of Japanese Entrance Examination Systems



# High School-University Partnership Reform Plan (January 16, 2015)

## Outline of Plan

The plan clarifies the schedule and priority policies that should be tackled by the Ministry of Education, Culture, Sports, Science and Technology from the perspective of implementing high school-university partnership reform in a definitive manner based on the high school-university partnership report. It was announced in January 2015 by the minister of education, culture, sports, science and technology.

## Specific Policies

**1 Reform of individual selection by each university**



- Legal amendment to advance reform of individual selection (to be done FY 2015)
- Revision of items to implement for university admissions (to be implemented in stages beginning FY 2015)
- Clarify admissions policy (Collection of examples during FY 2014; creation of guidelines during FY 2015)
- Financial measures to advance reform of individual selections (move forward, consider financial measures, and put together specific policies by the summer of 2015)

**2 Implement Test of Basic High School Proficiency and Test to Evaluate those Wishing to Enter University**



- Aim to begin the *Test of Basic High School Proficiency* in FY 2019 and the *Test to Evaluate those Wishing to Enter University* in FY 2020, then deliberate in a systematic manner while using the knowledge of experts.
- Establish an agency to administer the new tests (to be established in FY 2017)

**3 Reform of High School Education**



- Promote autonomous and collaborative learning geared toward discerning and resolving problems; improve the qualification and ability of high school teachers (to be implemented promptly)
- Evaluate diversified learning activities and achievements (Revise student records and investigative report in FY 2016)
- Overhaul the official *Courses of Study* national curriculum (Report during FY 2016)

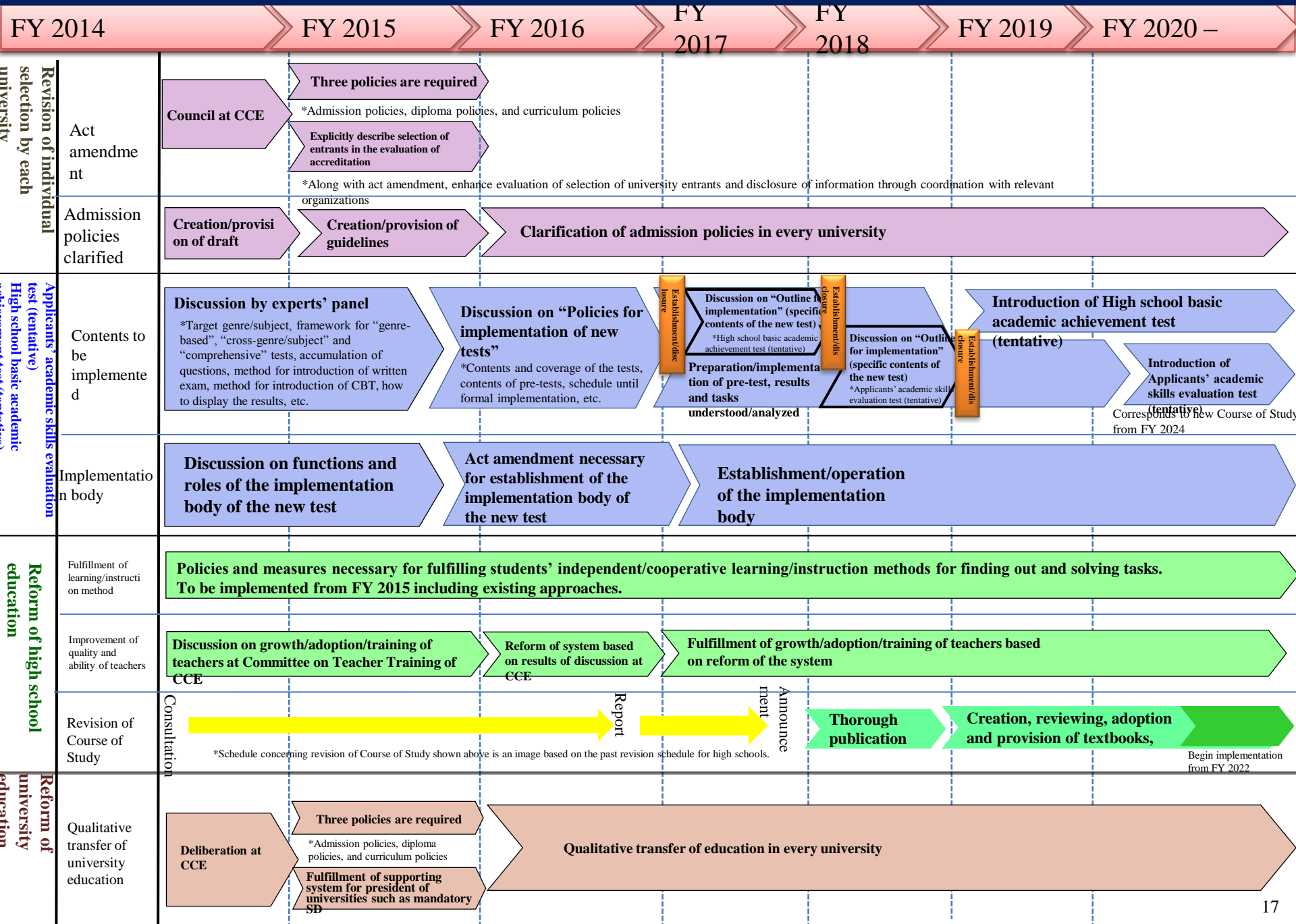
**4 Reform of University Education**



- Qualitative transformation of university education (change system during FY 2015)
- Promote the ascertainment and evaluation of students' academic achievement (change system during FY 2015)
- Promote transfer to university (change system during FY 2015)



# Time schedule for connections between high schools and universities



# G7 Kurashiki Education Ministers' Meeting in Okayama

## Date

May 13(Fri.), 2016 – May 15(Sun.), 2016

## Location

Kurashiki City, Okayama Prefecture

## Participating countries

### 【Member of Countries / Region】

Japan, Italy, Canada, France, USA,  
UK, Germany, EU

### 【Observers】

OECD, UNESCO

## Contents

Ministers' Meeting, Open Symposium,  
Official Dinner, Excursion, etc.



## Meeting theme

### Innovation in Education

#### (Aims)

Globalization and technological innovations have brought about significant structural changes in the societies, economies, and industries of nations around the world, while also stimulating increasing contact among people with different social and cultural backgrounds. The purpose of the meeting will be for the participating countries to offer their views on the qualities, capabilities, and competencies required in this new era when co-existence and collaboration among persons with diverse backgrounds are becoming increasingly important, with the aim of sharing their best practices on measures and methods for fostering these abilities and discussing paradigms for the international cooperation in the new era for the realization of “Innovation in Education”.

#### (Draft Agenda)

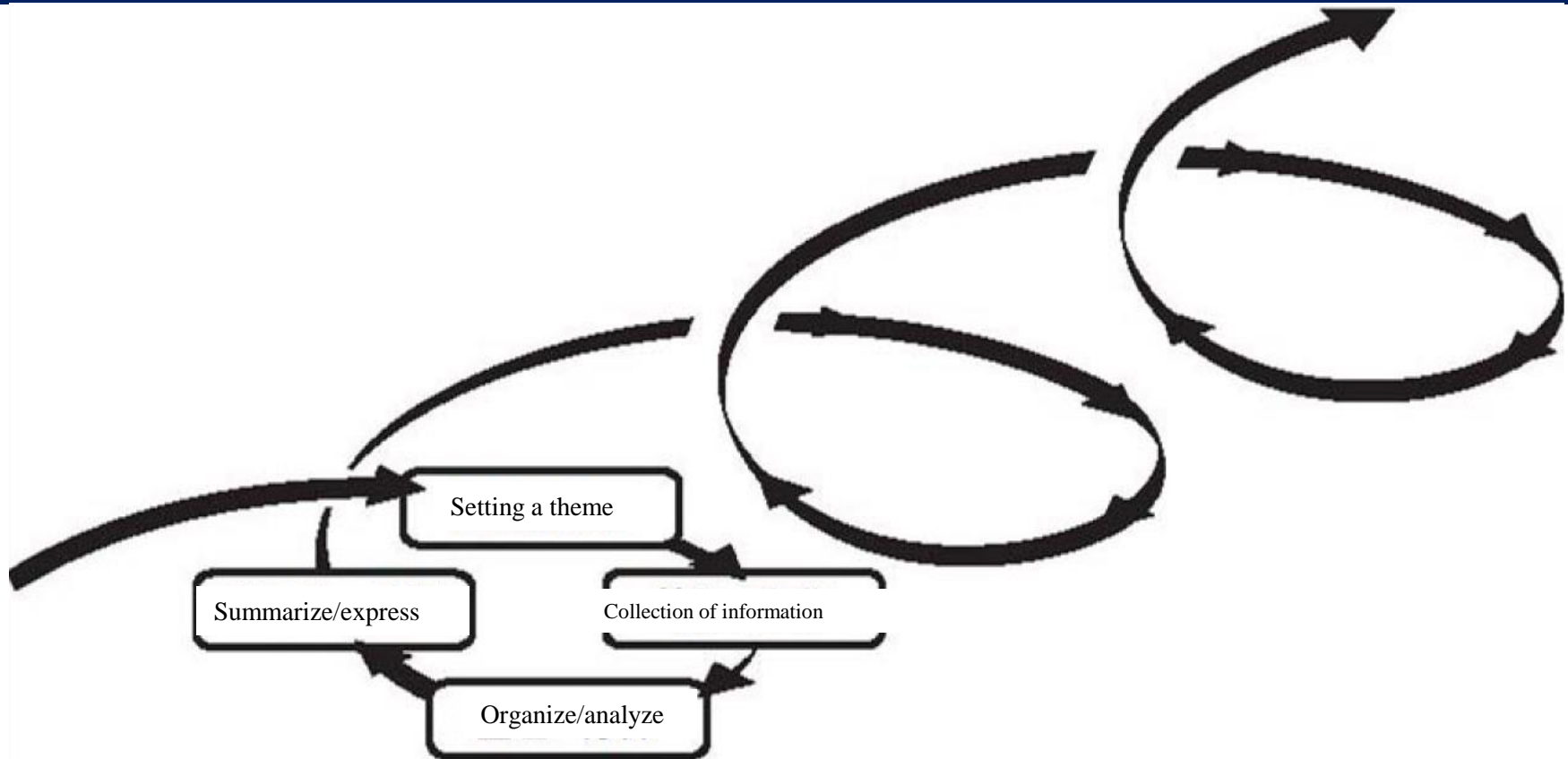
Session1 : Qualities and capabilities required in the new era and the role that education should play

Session2: Progressive approaches to the new learning

Session3: Paradigms for international cooperation in the new era

Session4: Wrap-up session

# (Reference) How students learn in Exploratory Lesson in the Comprehensive Lesson



■ Students direct their attentions to daily life or society and they set their themes by themselves.

■ Experience through the process of exploration

- ① Setting a theme
- ② Collect information
- ③ Organize/analyze information
- ④ Summary/expression

■ Their own ideas and themes are newly updated and the exploration process is repeated.