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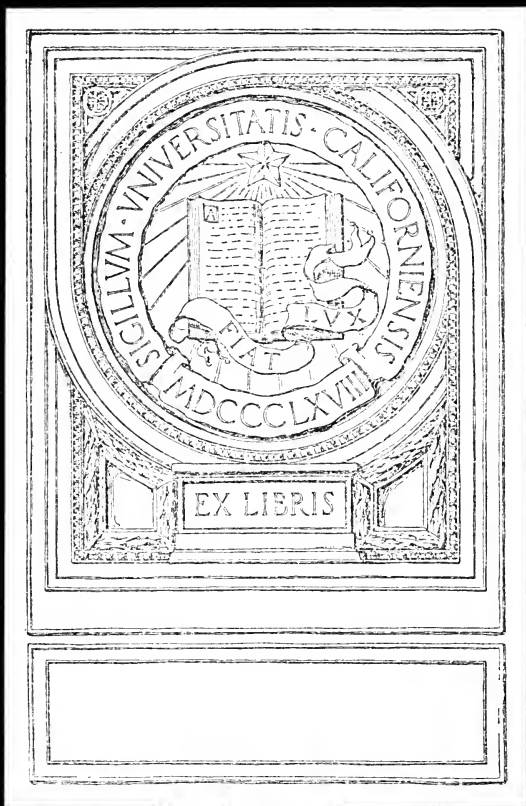
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REPORT OF COMMITTEE
ON THE
JUNIOR HIGH SCHOOL

PRESENTED TO
THE HIGH SCHOOL MASTERS' CLUB
OF MASSACHUSETTS

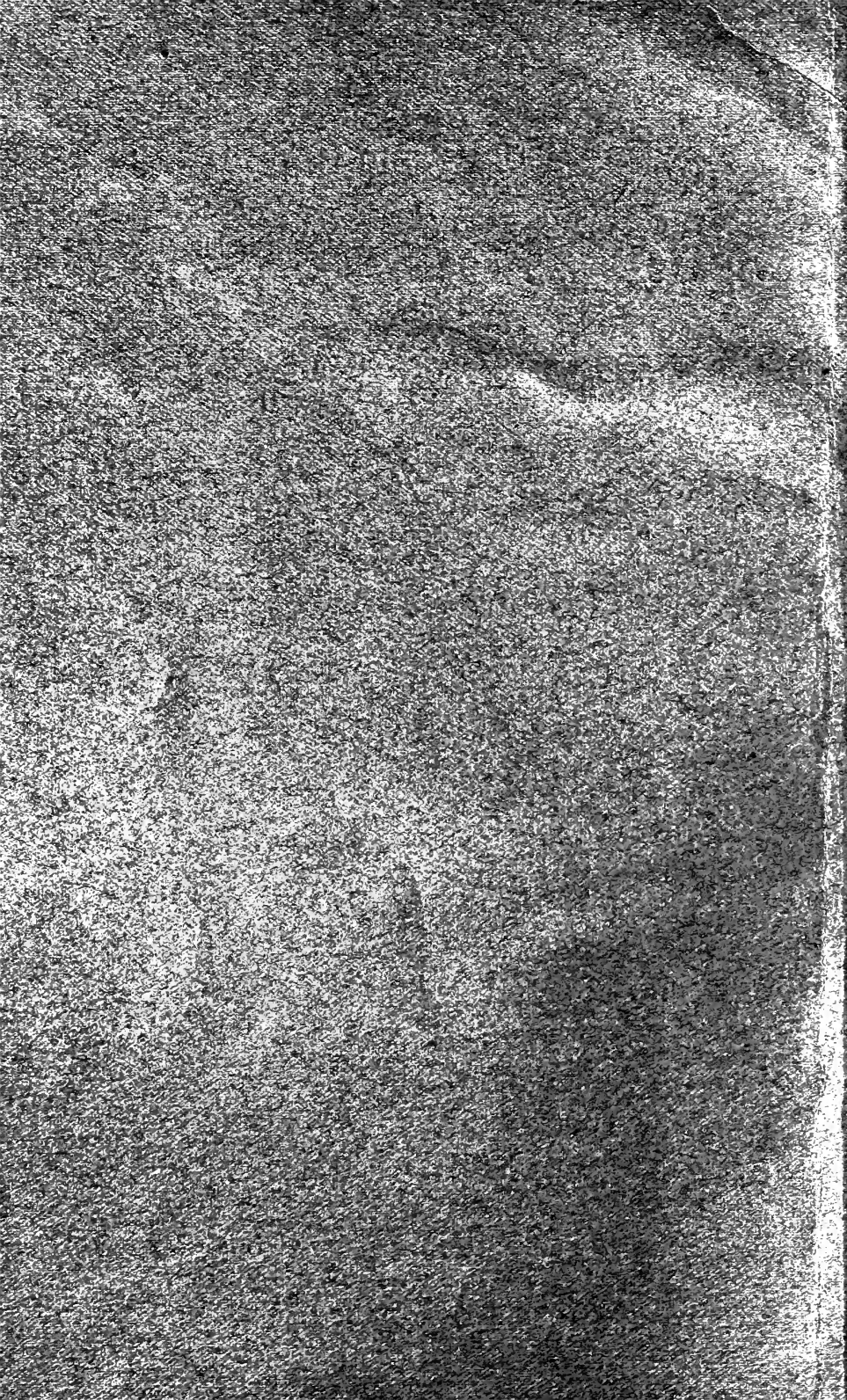
MARCH 17, 1917

D. C. HEATH AND COMPANY

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G. E. P.

UNIVERSITY OF
MASSACHUSETTS

REPORT OF COMMITTEE ON THE JUNIOR HIGH SCHOOL

The Committee of the High School Masters' Club of Massachusetts, which was appointed at the annual meeting, February 20, 1915, to consider the subject of the Junior High School, hereby respectfully submits its report.

The fact which has most of all impressed the committee in the course of its inquiry is the remarkable interest which is being shown in the junior high school movement in all parts of the country. There seems to be a widespread feeling that the organization has demonstrated its desirability and practicability. There are several reasons for the interest in this movement.

For many years careful students of the American educational system have been expressing dissatisfaction with the work of the last two or three grades of the elementary school. By the end of the sixth grade, a normal pupil if he has been well taught has acquired the fundamentals of his education. He is in possession of the means of broadening his horizon and enlarging his powers by work in the great fields of human knowledge. He is in possession, or ought to be, of the common ideals and common knowledge which is essential for a reasonable adjustment to his environment. His further progress is, however, impeded in the upper grades in several ways. The first of these is the congestion of the school program by the introduction of many subjects which have been added in response to the enlarged social demands on the schools. These new subjects are generally of great value and with our complex civilization we cannot hope to return to the three "R's." The trouble has come through the frequent addition of new subjects without a corresponding and necessary elimination of useless material from the old subjects and through a failure to correlate properly the subjects of study.

Another way in which the work of the upper grades has been rendered less profitable is by the amount of time given to useless reviews. Professor C. M. Hill of the Missouri State Normal School, after a careful study of one hundred and sixty-nine representative school systems of this country, estimated that forty per cent of the

work of the seventh and eighth grades is a wasteful, wearisome and futile review. In all grades enough time must be given to review of important facts and principles to prevent instruction from becoming superficial, but the best review is not a rehearsing of the old but a use of knowledge already acquired to gain new knowledge. It has been urged that the lack of real progress in the last two or three grades has a demoralizing effect on the future career of the pupil. He acquires a distaste for school which accounts in considerable part for his dropping out of school as soon as the compulsory education laws will permit.

This leads naturally to the statement of another reason for the reorganization of the school system, namely, the great gap which now exists between the grades and the high school. The pupil during his stay in the grades has generally been accustomed to one room and one teacher. He has, during his last year or two in the grammar school, been an important influence in the school, at least, he feels that he has. By the unfortunate sentiment which has injected a graduation into the middle of a school system, he is led to believe that with the completion of his grammar school curriculum he has finished the education reasonably demanded by modern life, or that, at least, he has reached a respectable and legitimate stopping place, and that the education which lies beyond is a superfluity which he may take or leave without serious loss to himself.

He is, moreover, invited now to spend four years in a school in which he will find himself in quite new circumstances. If he enters the high school, he comes in contact with a half dozen or more teachers during the week. He is thrown much more largely on his own resources than ever before. A new responsibility for his work is laid upon him although, oftentimes, he is ill fitted to bear it. The opportunities for going wrong seem quite as conspicuous and even more alluring than the straight and narrow path of duty. He enters this new environment, or is hindered from entering it, with his head filled with rumors of misfortunes which have befallen his acquaintances who have preceded him. Under such circumstances, it is hardly surprising that so many pupils fail to enroll in the high school, and that the mortality of the upper grades continues in the high school. The investigations of Ayres, Strayer, and Thorndike have shown how serious this mortality is. A summary of their conclusions shows that of one hundred children entering the first grade, from eight to ten will complete the high school course. The attendance remains practically constant through the fifth grade, but from the

completion of this grade to the first year of the high school about sixty-five per cent of the pupils will drop out, and of those reaching the high school forty or fifty per cent will leave during the first year. In other words, of one hundred pupils who enter the first grade not more than twenty-five, probably not more than twenty-one or twenty-two on the average, will reach the second year of the high school. In view of such facts as these, the demand for a reorganization of the school system has rapidly been gaining in force.

HISTORICAL STATEMENT

The first public utterance of weight that called into serious question the organization of the public school system was made by President Eliot at the meeting of the Department of Superintendence of the N.E.A. at Washington in 1888. Although the particular thing which called forth this address was the increasing age at which freshmen were entering Harvard, the discussion which ensued soon extended to an examination of the whole educational system. The immediate outcome was the Committee of Ten. Concerning the great influence of this committee on educational thought nothing need be said. The committee made important recommendations with regard to the earlier introduction of secondary subjects, and suggested the desirability of beginning the secondary period two years earlier, or at the conclusion of the sixth grade. The suggestion of a longer secondary period received the indorsement of the Committee of the N.E.A. on College Entrance Requirements, which reported in 1899. This committee in its report said:

“In our opinion it is important that the last two grades that now precede the high school course should be incorporated in it and, wherever practicable, the instruction in those two grades should be given under the supervision of the high school teacher.”

The first official attempt by an authoritative educational body looking to an important readjustment of the relation between the grades and the high school seems to have been made by the N.E.A. in 1905. A committee of five was appointed by the Department of Secondary Education to consider the advisability of an earlier beginning of secondary education. This committee reported to the Association in 1907, 1908, and 1909, and strongly urged the equal division of the public school period between the elementary and secondary schools. The present movement for junior high schools seems to have taken its impetus from the above reports. The junior high

schools established in Columbus, Ohio, in 1909, and in Berkeley, California, in 1910, were probably the first of the kind to be started in the United States, although it is clear that at various earlier times and in other places there may have been approximations to the present idea of a junior high school.

EXTENT OF MOVEMENT

The spread of the movement has been remarkable. Professor Thomas H. Briggs in the Report of the United States Commissioner of Education for 1914 reported one hundred and ninety-three cities as having junior high schools in 1913-1914. He also reported that two hundred and twenty-two other places were seriously considering the adoption of the plan.

In January, 1917, the present committee sent out the following questionnaire to all places in Massachusetts of five thousand population or over and to about four hundred places in other states where the committee had reason, because of its preliminary investigation, to believe there was a junior high school:

1. Do you have a junior high school or intermediate school in your city?
2. What was the date of opening of the first of such schools in your city?
3. What is the distribution of grades in your school system (6-3-3, 6-2-4, etc.)?
- 4a. Is the school in a separate building?
- 4b. Is the school under a separate principal?
5. Do you promote by subjects?
6. Do you promote annually or semi-annually?
7. What are the conditions of entrance to the junior high school?
8. Do you have departmental teaching?
9. Do you have a graduation and diplomas at the end of the junior high school course?
10. Does the principal, or do any of the teachers of the senior high school, exercise any supervisory functions in the junior high school?
- 11a. What is the length of the school day?
- 11b. How many periods?
12. Do you have supervised study in the junior high school?

In all, 441 copies of the questionnaire were sent out and 250 replies received. The table on pages 6-13 contains the results of this investigation.

It is quite clear that the number of places which are credited with having a junior high school depends on the definition of such a school which is adopted. The following list contains the names of all places which, in their replies to the inquiry of the committee, have

claimed to have one or more junior high schools. Even with this easy definition, the list is only a partial one. It did not seem wise to attempt any complete canvass of the United States. This has already been done for all places of 2,500 population or more by Professor Briggs in the investigation from which we have quoted above, and he is soon to go over the ground again for the United States Commissioner of Education. Moreover, the indefiniteness of many replies and the failure of many places to respond make the list incomplete even for the places to which the questionnaire was sent. Even with these limitations it has seemed best to give a partial list of places in order to make clear the present extent of the movement. To give the list further value, certain data with regard to the organization and administration of the junior high schools have been given in connection with the list.

One hundred and fifty places have reported that they have one or more junior high schools. The dates of organization range from 1895 to 1917. It will be observed that a great majority of the places reporting have started the junior high school within the last four years.

The distribution of grades shows much variation. Sixty-two places have the 6-2-4 plan; forty-nine places, the 6-3-3 plan; and thirteen places, the 6-6 plan. Among the other twenty-two places reporting, seventeen different arrangements are found.

Seventy-seven places have the junior high school in a separate building and eighty-nine places have separate principals.

In sixty places the promotions are annual and in eighty-six places semi-annual.

Departmental teaching is found in one hundred and forty-five schools out of one hundred and forty-seven which made reply.

Graduation at the end of junior high school is reported in forty-five places while ninety-five places have no graduation.

In sixty-five places the teachers of senior high schools exercise supervisory functions. Seventy places do not have such supervision, and five places answer "in part."

Supervised study is found in one hundred and eight places. Sixteen places report having such study in part and nineteen answer "no supervised study."

Leaving out of consideration the necessity of adopting a simple definition of a junior high school for purposes of a tabulation, the committee in the course of its investigation has gradually evolved a definition which contains, it believes, the elements essential to

Tabulation of answers to ques-

Places	2	3	4a	4b	5	6	7
	Date of organization	Distribution of grades	Separate building	Separate principal	Promotion		
					By subject	Annually	Semi-annually
ARKANSAS							
Hot Springs	1915	6-3-3	No	No	Yes		Yes
Texarkana	1914	6-3-3	Yes	Yes	Yes		Yes
CALIFORNIA							
Berkeley	1910	6-3-3	Yes	Yes	Yes		Yes
Fresno	1915	6-2-6	Yes	Yes	No		Yes
Los Angeles	1910	6-3-3	Yes	Yes	No		Yes
Palo Alto	1913	6-2½-3½	Yes	Yes	Yes		Yes
Pasadena	1910	6-3-5	Yes	Yes	Yes		Yes
Pomona	1914	6-4-4	Yes	Yes	Yes		Yes
Sacramento	1915	6-2-2-2	Yes	Yes	Yes		Yes
Santa Ana	1912	6-2-4	Yes	Yes	No		Yes
Santa Barbara	1914	6-2-6	Yes	Yes	No		Yes
Santa Monica	1912	6-2-4	Yes	Yes	Yes		Yes
COLORADO							
Fruitvale	1915	6-2-4	No	Yes	Yes	Yes	
Grand Junction	1916	6-3-3	Yes	Yes	Yes		Yes
Greeley	1916	6-3-3	Yes	Yes	No	Yes	
CONNECTICUT							
New Britain	1912	6-2-4	Yes	Yes	No		Yes
Stratford		6-2-4	No	No	No		Yes
FLORIDA							
Tampa	1915	6-3-3	Yes	Yes	Yes		Yes
GEORGIA							
Bainbridge	1916	6-3-2	No	No	Yes	Yes	
IDAHO							
Boise		6-2-4	No	No	No		Yes
Burley	1915	6-3-3	No	No	Yes	Yes	
Cœur d'Alene	1914	6-2-4	Yes	Yes	No	Yes	
Pocatello	1915	6-3-3	Yes	Yes	Yes		Yes
ILLINOIS							
Aurora	1912	7-1-4	Yes	Yes	Yes		Yes
Blue Island	1913	6-3-3	No	No	Yes	Yes	
Decatur	1912	6-2-4	Yes	Yes	Yes		Yes
Dundee	1915	6-2-4	No	No	Yes	Yes	
Joliet	1908	6-2-4	Yes	Yes	Yes		Yes
Macomb	1915	6-6	No	No	Yes		Yes
Quincy	1914	6-3-3	No	No	Yes		Yes
Urbana	1914	6-2-4	Yes	Yes	Yes		Yes
Watseka	1915	6-6	No	No	Yes	Yes	
INDIANA							
Buck Creek	1914	6-3-3	No	No	Yes		Yes
Crawfordsville	1917	6-2-4	No	Yes	Yes		Yes
East Chicago	1914	6-3-3	Yes	Yes	Yes		Yes
Madison		6-2-4	Yes	Yes	No		Yes

THE QUESTIONNAIRE

tionnaire sent out January, 1917

8	9	10	11a	11b	12	Remarks
Departmental teaching	Graduation from J.H.S.	Supervision by S.H.S	Length of day	No. of periods	Supervised study	
Yes	Yes	Yes	6½ hrs.	7	Yes	School burned. Reopen Feb., 1917
Yes	Yes	No	4 "	6	Yes	
Yes	No	Yes	4½ hrs.	7	Some	
Yes	Yes	Yes	5½ "	10½	Yes	
Yes	Yes	No	8¾ "	5	Yes	
Yes	No	Yes	6 "		Yes	
Yes	No	Yes	5¾ "	7	Yes	
Yes	Yes	No	6 "	6	Yes	
Yes	No	Yes	7 "	7	Partial	
Yes	Yes	No		7	Yes	
Yes	No	No	5 "	6	Yes	
Yes	Yes	Yes	6 "	7	Yes	
Yes	No	Yes	6 hrs.	7	Yes	
Yes	No	No	5½ "	7	Yes	
Yes	No	No	5¼ "	7	Yes	
Yes	Yes	No	6 hrs.	6	Yes	
Yes	No	No	4¾ "	6	Yes	
Yes	Yes	No	5 hrs.	6	Yes	
Yes	No		5½ hrs.	7	No	
Yes	No	No	5 hrs.	7	Yes	
Yes	No	Yes	6 "	7	Yes	
Yes	No	No	5¼ "	6	Yes	
Yes	No	No	7 "	6	Yes	
Yes	No	Yes	5¾ hrs.	10	Yes	
Yes	No		5½ "	8	Yes	
Yes	Yes	No	6½ "	8	Yes	
Yes	Yes	No	5¾ "	9	Yes	
Yes	Yes		6 "	7	Yes	
Yes	No	Yes	7½ "	8		
Yes	No	No	5 "	8-10	Yes	
Yes	Yes	No	6¾ "	6	Yes	
Yes	No	Yes	5½ "	8	Yes	
Yes	No	Yes	7 hrs.	8	Yes	
Yes	No	No	7 "	7	No	
Yes	No	Yes	6 "	6	Yes	
Yes	Yes	No	6¾ "	13	No	

Tabulation of answers to ques-

Places	2	3	4a	4b	5	6	7
	Date of organization	Distribution of grades	Separate building	Separate principal	Promotion		
					By subject	Annually	Semi-annually
INDIANA Continued							
Montmorency	1915	6-3-3	No	No	Yes	Yes	
Muncie	1915	7-2-3	No	No	Yes		Yes
Richmond	1895	6-2-4	Yes	Yes	Yes		Yes
Seymour	1913	6-6	No	No	Yes		Yes
IOWA							
Clinton	1914	8-2-3	Yes	Yes	Yes	Yes	
Goldfield	1915	6-3-3	Yes	Yes	No	Yes	
Holstein	1916	6-6	No	No	Yes	Yes	
Shenandoah	1915	6-3-3	Yes	Yes	Yes	Yes	
Vinton	1916	6-4-2	No	No	Yes	Yes	
Winfield	1915	6-6	No	No	No	Yes	
KANSAS							
Arkansas City	1912	6-2-4	Yes	Yes	No	Yes	
Chanute	1914	6-3-3	Yes	Yes	Yes		Yes
Hays	1914	6-2-4	No	Yes	Yes	Yes	
Hutchinson	1915	6-3-3	No	Yes	Yes		Yes
Kansas City	1916	6-3-3	Yes	Yes	Yes		
Lawrence		6-2-4	Yes	Yes	Yes		Yes
Salina	1916	6-3-3	Yes	Yes	Yes	Yes	
Topeka	1915	6-3-3	No	No	Yes		Yes
Winfield	1913	6-2-4	Yes	Yes	Yes	Yes	
KENTUCKY							
Covington	1914	6-2-4	No	No	Yes		Yes
Lexington	—	6-3-3	—	—	—	—	—
Paducah	1915	6-2-4	No	Yes	Yes		Yes
Paris	1914	6-2-4	No	No	Yes		Yes
MAINE							
Auburn	1916	7-2-3	No	No	Yes	Yes	
Oldtown	1915	6-3-3	Yes	Yes	Yes		Yes
MASSACHUSETTS							
Arlington	1915	6-2-4	Yes	Yes	Yes	Yes	
Chelsea	1916	6-3-3	No	No	Yes	Yes	
Fitchburg	1910	6-2-4	Yes	Yes	No	Yes	
Marblehead	1916	6-2-4	Yes	Yes	Yes	Yes	
Marlboro	1916	6-2-4	Yes	No	No	Yes	
Milford	1917	6-3-3	Yes	No	No		
N. Attleboro	1914	6-3-4	Yes	Yes			Yes
N. Easton	1912	6-3-3	Yes	Yes	Yes		Yes
Plymouth	1914	6-2-4	Yes	Yes		Yes	
Reading	1915	6-2-4	Yes	Yes	Yes	Yes	
Revere	1916	6-3-4	No	No	Yes	Yes	
Somerville	1914	7-3-3	Yes	No	Yes	Yes	
Turner's Falls	1916	6-2-4	Yes	Yes	Yes	Yes	
Wellesley	1910	6-2-4	Yes	No	No	Yes	
MICHIGAN							
Adrian	1915	6-3-3	No	Yes	Yes		Yes

tionnaire sent out January, 1917

8	9	10	11a	11b	12	Remarks
Departmental teaching	Graduation from J.H.S.	Supervision by S.H.S.	Length of day	No. of periods	Supervised study	
Yes	No	Yes	6 "	8	Partial	Will change to 6-3-3 next year
Yes	No	Yes	6 "	8	Partial	
Yes	No	Yes	5 $\frac{3}{4}$ "	6	Yes	
Yes	No	Yes	6 $\frac{1}{4}$ "	6	Yes	
Yes	Yes	No	9 $\frac{1}{2}$ hrs.	8	Partial	Will change to 6-3-3 next year
Yes	No	No	6 $\frac{1}{2}$ "	7	No	
Yes	Yes	Yes	6 "	6	Yes	
Yes	Yes	No	5 $\frac{1}{4}$ "	6	Yes	
Yes	No	Partial	7 $\frac{1}{2}$ "	9	Yes	
Yes	No	No	5 $\frac{3}{4}$ "	8	Yes	
Yes	No	No	5 $\frac{1}{4}$ hrs.	7	Yes	
Yes	Yes	No	6 "	6	Yes	
Yes	No	Yes	7 "	8	Yes	
Yes	No	No	5 $\frac{1}{2}$ "	7	Yes	
Yes	Yes	No	5 "	5	Yes	
Yes	Yes	No	5 $\frac{1}{2}$ "	5	Yes	
Yes	No	No	6 "	8	Yes	
Yes	No	No	7 "	8	No	
Yes	Yes	Yes	5 $\frac{1}{2}$ "	6	Yes	
Yes	No	No	5 $\frac{1}{2}$ hrs.	9	Yes	Will open in Sept., 1917
—	—	—	—	—	—	
Yes	No	No	5 $\frac{1}{2}$ "	8	No	
Yes	No	Yes	5 "	10	No	
In part	No	Yes	5 hrs.	7	Yes	Partial
Yes	Yes	No	5 $\frac{3}{4}$ "	8		
Yes	No	Yes	5 hrs.	7	Yes	
Yes	Yes	No	4 $\frac{3}{4}$ "	6	Yes	
Yes	No	No	6 "	6	No	
Yes	Yes	No	5 "	8	Yes	
Yes	Yes	Yes	5 "	7	Yes	
No	Yes	Yes	5 "	6	Yes	
Yes	Yes	No	5 "	9	Partial	
Yes	Yes	Yes	5 $\frac{1}{2}$ "	7	Yes	
Yes	No	No	4 "	6		
Yes	No	Yes	6 "	8	Yes	
Yes	No	No	6 "	9	Yes	
Yes	Yes	Yes	5 "	8	Yes	
Yes	No	No	5 $\frac{1}{2}$ "	6	Yes	
Yes	Yes	Yes	5 "	10	Yes	
Yes	No	No	5 $\frac{1}{2}$ hrs.	6	No	

Tabulation of answers to ques-

Places	2	3	4a	4b	5	6	7
	Date of organization	Distribution of grades	Separate building	Separate principal	Promotion		
					By subject	Annually	Semi-annually
<i>MICHIGAN Continued</i>							
Detroit		6-3-3	Yes	Yes			Yes
Flint	1911	6-2-4	No	No	Yes		Yes
Grand Rapids	1911	6-6	Yes	Yes	Yes		Yes
Jackson	—	6-3-3	—	—	—	—	—
Kalamazoo	1913	6-3-3	Yes	Yes	Yes		Yes
Muskegon	—	6-1-5	Yes		Yes		Yes
<i>MINNESOTA</i>							
Barnesville	1915	6-3-3	No	No	Yes	Yes	
Cokato	1913	6-3-3	No	Yes	Yes	Yes	
Crookston	1913	6-2-4	No	Yes	Yes	Yes	
Deer River	1913	6-6	No	No	Yes	Yes	
Duluth	1912	6-3-3	No	No	Yes		Yes
Faribault	1913	6-6	Yes	Yes	Yes		
Fergus Falls	1914	6-3-3	No	Yes	Yes		Yes
Henderson	1913	6-3-3	No	No	Yes	Yes	
<i>NEBRASKA</i>							
Blair	1913	6-3-3	No	No	Yes		Yes
Fairbury	1912	7-3-2	Yes	Yes	Yes		Yes
Norfolk	1915	6-2-4	Yes	Yes	Yes		Yes
Shelton	1911	6-6	No	No	Yes	Yes	
<i>NEW HAMPSHIRE</i>							
Concord	1910	6-2-3	Yes	Yes	No		Yes
Nashua	1916	7-2-4	Yes	Yes	No	Yes	
<i>NEW JERSEY</i>							
Cliff Side Park	1916	6-2-4	Yes	Yes	Yes		Yes
Englewood	1916	6-2-4	No	Yes	Yes		Yes
Glenn Ridge	1912	6-2-4	No	No	Yes		Yes
Hackensack	1912	6-2-4	Yes	No	No		Yes
Somerville	1915	6-2-4	No	No	No	Yes	
Trenton	1916	6-6	Yes	No	Yes	Yes	
<i>NEW YORK</i>							
Albion	1906	6-3-3	No	Yes	Yes	Yes	
Cortland		6-3-3	No	No	In part		Yes
Dansville	1914	6-2-4	No	No	Yes	Yes	
Hempstead	1914	6-2-4	No	Yes	No	Yes	
Malone	1913	6-3-3	No	Yes	Yes		Yes
Olean	1901	7-2-4	No	No	Yes		Yes
Rochester	1915	6-3-3	Yes	Yes	Yes		Yes
Scotia	1914	6-2-4	No	No	No		Yes
Silver Creek		6-2-4	No	No	Yes	Yes	
Solvay	1915	6-3-3	No	Yes	Yes		Yes
<i>NORTH DAKOTA</i>							
Devil's Lake		6-2-4	Yes	Yes	Yes		Yes
Grafton	1913	6-2-4	No	Yes	Yes		Yes
Langdon	1914	6-3-3	No	Yes	Yes	Yes	
Webster	1912	6-3-3	No	Yes	Yes	Yes	

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tionnaire sent out January, 1917

8	9	10	11a	11b	12	Remarks	
Departmental teaching	Graduation from J.H.S.	Supervision by S.H.S.	Length of day	No. of periods	Supervised study		
Yes	No	No	6 "	8	Partial	Will open Sept., 1917	
Yes	No	No	5½ "	7	Yes		
—	—	—	5	—	—		
Yes	No	Yes	5½ "	9	Yes		
Yes	No	—	6 "	8	No		
Yes	No	Yes	5½ hrs.	8	Moderately		Junior and Senior High in one room
Yes	Yes	Yes	5½ "	8	Yes		
Yes	No	No	5½ "	9	Partial		
Yes	No	Yes	5¼ "	7	Yes		
Yes	Yes	No	5½ "	7	Yes		
Yes	No	Yes	8 "	8	Yes		
Yes	No	Yes	7½ "	9	No		
Yes	No	Yes	5¾ "	8	Partial		
Yes	No	Yes	7 hrs.	7	Yes		
Yes	No	No	—	8	No		
Yes	No	In part	7 "	10	Yes		
Yes	—	—	7 "	8	—		
Yes	No	No	6 hrs.	6	Yes		
Yes	Yes	No	5 "	7	Yes		
Yes	No	Yes	5½ hrs.	7	Yes		
Yes	No	No	5 "	7	Yes		
Yes	No	Yes	4 "	6	No		
Yes	Yes	No	5½ "	7	No		
Yes	No	In part	5 "	7	Yes		
Yes	Yes	Yes	6 "	6	Yes		
Yes	Yes	No	6 hrs.	8	Yes		
Yes	No	In part	7 "	—	Yes		
Yes	No	Yes	5½ "	7	In part		
Yes	No	Yes	5 "	5	Yes		
Yes	No	Yes	6 "	8	Yes		
Yes	No	Yes	6 "	6	Yes		
Yes	Yes	Yes	6 "	4	Yes		
Yes	No	Yes	5½ "	7	Yes		
Yes	No	No	5½ "	7	Yes		
Yes	Yes	No	5½ "	8	Yes		
Yes	Yes	Yes	5½ hrs.	8	Yes		
Yes	Yes	No	—	7	Yes		
Yes	No	Yes	5¼ "	7	Yes		
Yes	Yes	Yes	5½ "	8	No		

Tabulation of answers to ques-

Places	2	3	4a	4b	5	6	7
	Date of organization	Distribution of grades	Separate building	Separate principal	Promotion		
					By subject	Annually	Semi-annually
OHIO							
Cleveland	1915	6-3-3			Yes		Yes
Columbus	1909	6-3-3			Yes		Yes
OKLAHOMA							
Muskogee	1912	6½-2-3	No	No	Yes		Yes
OREGON							
Albany	1915	6-3-3	Yes	Yes	Yes		Yes
Eugene	1916	6-2-4	Yes	Yes	Yes		Yes
Salem	1915	6-3-3	Yes	Yes	Yes		Yes
PENNSYLVANIA							
Ben Avon	1914	6-6	No	No	Yes		Yes
Chambersburg	1914	6-2-4	Yes	Yes	Yes	Yes	
Johnstown	1915	6-3-3	Yes	Yes	Yes		Yes
Lansdowne	1908	6-2-4	No	Yes	Yes	Yes	
Mohnton	1914	6-6	Yes	No	Yes	Yes	
Monessen	1914	6-2-4	No	No	No		Yes
New Kensington	1914	6-3-3	No	No	Yes		Yes
Oakmont	1914	6-2-4	No	No	Yes		Yes
Williamsport		6-2-4	No	No	No	Yes	
RHODE ISLAND							
Westerly	1916	6-2-4	Yes	No	Yes	Yes	
SOUTH DAKOTA							
Brookings	1914	6-2-4	Yes	Yes	Yes		Yes
TENNESSEE							
Jackson	1912	6-2-4	No	No	Yes		Yes
Murfreesboro	1907	6-2-4	Yes	Yes	No	Yes	
TEXAS							
Austin	1916	6-2-3	Yes	Yes	Yes		Yes
El Paso	1916	6-2-4	No	Yes	Yes		Yes
Houston	1914	6-3-2	Yes	Yes	Yes		Yes
UTAH							
Murray	1914	6-3-3	No	No	Yes	Yes	
Ogden	1909	6-2-4	Yes	Yes	Yes		Yes
VERMONT							
Burlington	1914	6-2-4	Yes	Yes	Yes	Yes	
VIRGINIA							
Richmond	1915	5-3-3	Yes	Yes	Yes		Yes
Roanoke	1912	5-3-3	Yes	Yes	In part		Yes
WEST VIRGINIA							
Clarksburg	1914	6-2-4	No	Yes	Yes	Yes	
WISCONSIN							
Edgerton	1913	6-6	No	No	Yes	Yes	
Rhinelander	1913	6-2-4	Yes	Yes	No	Yes	
Sheboygan	1916	6-2-4	No	No	Yes		Yes
WYOMING							
Cheyenne	1912	6-2-4	No	No	In part	Yes	
Laramie	1914	6-2-4	Yes	Yes	Yes	Yes	
Rawlins	1913	6-2-4	No	Yes	No	Yes	

THE QUESTIONNAIRE

tionnaire sent out January, 1917

8	9	10	11a	11b	12	Remarks
Departmental teaching	Graduation from J.H.S.	Supervision by S.H.S.	Length of day	No. of periods	Supervised study	
Yes	Yes	In part	5½ hrs.	10	Yes	8 junior high schools, some in separate buildings and under separate principals
Yes	No	No		7-9	Yes	7 junior high schools
Yes	No	Yes	6¼ hrs.	9	Yes	
Yes	No	No	5¼ hrs.	7	In part	
Yes	No	No	5½ "	8	Yes	
Yes	No	Yes	5½ "	6	Yes	3 junior high schools
Yes	No	Yes		7	In part	
Yes	No	No	5½ hrs.	8	Yes	
Yes	No	Yes	7 "	6	Yes	
Yes	No	No	5¼ "	7	Yes	
Yes	No	Yes	6 "	8	In part	
Yes	No	No	5½ "	8	Yes	
Yes	No	Yes	6¼ "	7	In part	
Yes	No	Yes	7 "	6	Yes	
Yes	Yes	No	5½ "	8	No	
Yes	Yes	Yes	5½ hrs.	6	Yes	
Yes	No	Yes	5½ hrs.	7	Yes	
Yes	No	Yes	7 hrs.	10	No	
Yes	No	Yes	6 "	7	No	
Yes	No	Yes	7 hrs.	9	Yes	
Yes	No	No	7 "	7	Yes	
Yes	No	No	5¼ "	7	In part	3 junior high schools
Yes	No	Yes	6½ hrs.	8	Yes	
Yes	No	No	6½ "	8	Yes	3 junior high schools
Yes	Yes	No	5½ hrs.	8	Yes	
Yes	No	Yes	6 hrs.	8	Yes	3 junior high schools
Yes	No	No	5½ "	7	Yes	
Yes	No	No	5¼ hrs.	9	No	
Yes	No	Yes	7 hrs.	8	Yes	
Yes	No	Yes	6¼ "	10	Yes	
Yes			7 "	5		
Yes	No	No	5½ hrs.		Yes	
Yes	Yes	No	7 "	6	Yes	
Yes	No	No	5¼ "	7	Yes	

such an organization. According to this definition, *a junior high school means a grouping of grades seven and eight, or of seven, eight, and nine, to form a new educational unit in which there shall be some freedom in choice of studies by the pupils, a considerable change in the traditional content of the subjects and methods of instruction, departmental teaching, promotion by subject, and prevocational work.*

It is hardly necessary to say that many of the cities included in the above list do not yet have junior high schools which may fairly be included under the above definition, but the definition at least represents a goal toward which the educational world is rapidly moving and which many places have already reached. With this definition in mind, it is in order to set forth the advantages claimed for the junior high school. These claims are supported by the abundant testimony of those who have had experience with the new organization.

ADVANTAGES OF THE JUNIOR HIGH SCHOOL

The first advantage is that under the junior high school the aptitudes and abilities of the pupils are more easily discovered and provided for, owing to the greater freedom in choice of work which is allowed. As will be shown later under a discussion of the program of studies, most of the junior high schools offer a choice of several curricula and also allow some freedom of election within the separate curricula. The justification for this freedom may be found in the same arguments which have been used in defense of the rapid extension of the elective system in the high schools of the United States in the last decade or two. During the first six years of school life, the pupil is acquiring the fundamentals of knowledge and the primary ideals of life, which must be essentially the same for all. He is, moreover, in the docile pre-adolescent stage when he yields with little protest to mass treatment. With the completion of the sixth grade, the situation begins to assume a different character. By general consent of the most careful students of education, the pupil has mastered the facts and processes which justify and demand a new departure. He is, moreover, approaching or is already in the stormy period of adolescence. He no longer accepts authority without question. It is at this time that he begins to present problems of discipline. He is seeking, unconsciously, new sanctions and new ideals. It is precisely in this period that the old organization of the schools has failed oftenest to interest and hold the pupil. It is at this time in the pupil's life that he begins to be different not only from his former self, but different

from his fellow pupils in more marked and fundamental ways than ever before. It is also a time of unrest, uncertainty and, oftentimes, of a distaste for those studies and pursuits sanctioned by parents and teachers. The junior high school meets this situation in the first place by *offering the pupil a choice of the work* that he may do. This plan recognizes the value of interest in mental work and assumes that the pupil is more apt to do well what he has of his own accord chosen to do. That there are necessary limitations to this freedom must, of course, be admitted.

The uncertainty of the pupil as to what he really desires to do is also met by the use of prevocational work. Many of the junior high schools do not yet offer this, but no feature of the new organization attracts more attention from students of the adolescent period than this, and none seems to be advancing more rapidly in favor. The purpose of this type of work is not, primarily, to teach the pupil handiness in the use of tools, nor to give especial skill in commercial or industrial branches, but rather to find out the kind of work for which he has the greatest aptitude. The idea that the junior high school period is the time for exploring and testing the individual possibilities seems to be a dominant feature of some of the best school systems, because mistaken choices are less costly in this early period of the pupil's life than if made later. Prevocational work should be supplemented by a general survey of vocations.

Another advantage of the junior high school is found in departmental instruction. It is true that such instruction is found in the upper grades of some of the progressive school systems, but departmental instruction is a general characteristic of the junior high schools. The advantage of having a teacher present one subject, or two at most, is great. It makes for thoroughness and accuracy of scholarship and better methods of teaching. It also saves the energy of both teacher and pupil. The teacher's efficiency is greatly increased by limiting her field of work. There are some dangers in early departmental instruction, but these do not seem insuperable, and they are far outweighed by the advantages, especially when such instruction is introduced gradually. The practice of some junior high schools of having two teachers in the seventh grade and three teachers in the eighth and full departmental instruction in the ninth has much to commend it. Such an arrangement would not be possible in small systems.

A natural result of departmental instruction is the promotion by subject. The pupil who fails, for example, in mathematics is not

required as a consequence to repeat other subjects which he has already passed satisfactorily. The increased flexibility of organization which everywhere attends the junior high school makes possible the introduction of *this desirable reform*. The figures given by Professor Briggs in his investigation of 1913-1914, to which reference has already been made, show that promotion by subject was at that time the prevailing practice in a great majority of the junior high schools. A committee of the North Central Association of Colleges and Secondary Schools in a recent report finds that thirty-four junior high schools promote by subjects as against seven which do not. Of one hundred and seventeen places replying under this head to the present committee, one hundred and fourteen promote by subject.

Another marked advantage which is claimed for the junior high school is the earlier introduction of certain subjects which have heretofore generally been taught only in the secondary school. It is true that here and there one or another of these subjects has been taught in the grades under the old organization, but this is by no means so general as under the new plan. These new subjects are an essential part of the junior high school idea.

The foreign languages represent one of the most distinctive of these introductions. Latin, German, French, and Spanish have found a place. Some schools offer all of them. The very nearly unanimous agreement among educators that the seventh grade is a better place than the ninth to begin the study of a foreign language, and the general practice of the other great civilized nations of the world, have had surprisingly small influence on our own procedure. The advantage which undoubtedly comes from beginning earlier the foreign languages may justly be claimed as a distinct educational advance which we owe to the junior high school.

Bookkeeping and business arithmetic, stenography and type-writing, algebra, geometry, industrial geography, general science and courses in the manual and household arts have all found a place in the reorganized school systems. The real importance of these changes as a whole will best be seen in connection with the typical curricula of junior high schools which appear later in this report.

Another advantage claimed for the junior high school is the possibility of a better social adjustment. It seems fair to say that this claim can hardly be justified unless this school has a building of its own where a real school life and spirit may be developed. The gain

from segregation of junior high school pupils has been very clearly and forcefully stated by Superintendent J. C. Templeton of Palo Alto, California. He says:

“A homogeneous school atmosphere depends on similarity of fundamental interests fostered in the student body, and no faculty can secure such an atmosphere if such interests radically conflict. The value and permanency of these interests should be understood by the faculty, who must distinguish between those that are natural and those that are fictitious. The school that is made up of primary children and adolescents usually has either the primary school atmosphere or that of the adolescent child. Since the same set of rules cannot apply to both without producing unrest and discontent, we must therefore distinguish a school from an aggregation of grades housed in one building. If the school is dominated by the one class or the other, unavoidable friction results. If the primary atmosphere prevails, the adolescents are out of harmony. If the adolescent spirit is manifest, the primary children are unhappy and discontented. What I have said of combining primary grades with the higher grades of adolescent children is also true of high schools conducted in the same building with grammar schools, as all who have had experience in such make-shifts will testify. In both cases where the boundary lines of deep latent interests are ignored, there is friction which is caused by biological incompatibility that no faculty nor set of rules can harmonize.”

In order that the full advantage may be derived in the junior high school from the better social adjustment of the pupils, it is important that sufficient time be given to this school. For this reason, in part, the 6-3-3 plan of organization seems best. This distribution of grades, according to replies received, is not so common as the 6-2-4 plan but seems to be gaining in favor, and undoubtedly is the arrangement which many of the places now operating under some other plan intend ultimately to adopt. Another very important reason for preferring the 6-3-3 plan to the 6-2-4 plan is that the former tends to keep all pupils in school a year longer, and a year beyond the time when they are permitted by law to leave school.

In small towns, however, the 6-3-3 plan does not seem feasible. For such places to attempt to furnish separate housing and a separate administration for the junior high school would involve a large per capita expense. Moreover, the number of pupils who might be gathered into a junior high school would be so small that many of the advantages of this organization would be wanting. For these places the 6-6 plan seems the most practicable. This distribution of the grades is older than the 6-3-3 plan and is a not uncommon arrangement, especially in the West.

An important gain incidental to the grouping of a large number

of pupils of the same grade is the possibility of forming accelerant groups which shall be allowed to do work at a faster rate than the average division. So much time and effort have been given in recent years to devising means of helping the backward pupil that it is pertinent to ask whether we are not in danger of forgetting our obligation to the capable pupil. It is worth while to prevent the gifted pupil from becoming a dawdler in school because he has no good opportunity to measure himself against a task worthy of his best effort. If the junior high school can also help solve this problem, it will have furnished another reason for its existence. By a suitable system of credits in the junior and senior high schools, it ought to be possible for the very capable pupil to complete a curriculum in the two schools in five years instead of six.

It is the general testimony of those who have had experience that under the junior high school plan the pupils show better spirit and greater interest in their work; that discipline is easier; that there is less retardation and a lower school mortality. This is an exceedingly important group of gains. Any plan which will diminish the large number of pupils who leave during grades seven, eight, and nine is certainly worthy of most careful consideration and a fair trial. The evidence that the junior high school prolongs the school life of the pupil is most convincing. In *Education* for September, 1916, statistics of the Franklin Junior High School at Berkeley, California, show that of the last seven classes completing the eighth grade under the old organization, 40.53% entered the high school, and that of the first six classes completing the eighth grade of the junior high school, 65.53% entered the ninth grade of the same school.

Principal Ernest P. Wiles of Evansville, Ind., reports that the per cent of pupils regularly promoted from the eighth grade of the elementary school to the first year of the high school and who entered the high school varied from 52% to 59% for the five semesters just prior to the organization of the junior high school. For the first five semesters following the establishment of the junior high school in that city, the per cent of pupils regularly promoted and entering the 9-B grade, or the first year of the high school under the old plan, increased steadily from 59% to 84%.

Superintendent Weet of Rochester, N.Y., in a recent article in *American Education*, says that of those pupils in Rochester who completed the eighth year work in January, 1916, under the junior high school organization, 94.5% have remained for the ninth year

work. A year earlier in exactly the same community, but under the grammar school organization, only 51% remained for ninth grade work.

Superintendent Bingaman of Goldfield, Iowa, found that of one hundred and two places which replied to his inquiry, "Are students held in school longer because of the added advantages of the junior high school?" 91 answered *Yes*, 4 answered *No*, and 7 *Too early to say*.

It remains to state briefly two further gains under the junior high school plan. The first is that it makes easier the transition to the high school. This is due to the fact that in the two or three years of the junior high school the pupil is gradually prepared for the methods and conditions of the high school instead of being abruptly precipitated into them. The gradual introduction of departmental instruction is an important help. Moreover, the pupil has already begun one or more of the subjects which he will study in his new environment. He comes to his new task also with a freshness of interest which has too often not characterized the beginner in high school.

The other point of advantage is that the junior high school makes easier the introduction of desirable educational reforms. This is a much more important advantage than would appear at first sight. It is very closely related to most of the other merits urged in behalf of the new organization and to others which might have been suggested. The enthusiasm for a new institution in an educational system often makes possible reforms which progressive superintendents and principals could not otherwise have secured. It is claimed, for example, that there has been a considerable increase of male teachers in the junior high schools. This gain would have been difficult or impossible under the old distribution of grades. School boards would probably have balked at the increase of expense involved, and the position of grade teachers has not generally appealed to men. Many of the places having junior high schools report a longer school day and supervised study. Supervised study means additional expense which would probably not have been incurred in most cases without a new institution. The introduction of secondary subjects two or three years earlier than these subjects have usually been taught illustrates the same idea. It is fair to say that many of the changes which have already been made or that may be made in the future have been rendered possible by the impetus of a new movement.

ARGUMENTS AGAINST THE JUNIOR HIGH SCHOOL

It is desirable that a report of this character should also set forth the objections which have been offered against the junior high school. There seem to be but three that deserve serious consideration. The first is that the establishment of a junior high school will make it necessary for the pupils to travel greater distances to school. It hardly needs to be said that this is a local argument and would have much greater force in some communities than in others. In places large enough to have two or more junior high schools, the increased distance for travel would probably not be a serious matter. On the whole, it may be doubted if a little increase in the distance the pupil would need to travel to school would be a great hardship, especially in view of the possibility of transportation by the municipality.

The second objection is that the reorganization of the school system and establishment of the junior high school would mean increased cost to the taxpayer. The testimony on this point varies widely. Some of those who have answered the committee's questions about this matter say that the junior high school costs less than the usual arrangement. They base their claim on the avoidance of duplication of school equipment. Another and much more weighty reason for decreased cost is that under the junior high school plan there is a marked diminution in the number of retarded pupils or repeaters, and that this fact diminishes the per capita cost. On the whole, the testimony of those who have had sufficient experience with the new plan to speak with any authority is to the effect that the school systems with the junior high school do cost more and are worth it.

The third objection raised against the junior high school is that under this plan there is too early and too marked differentiation in the work of the pupils. This objection has been *skillfully* urged by Mr. W. C. Bagley in *Home and School Education*. This is undoubtedly a danger, but it is a subject on which there is little likelihood of agreement. The matter will be referred to later in this report.

PROGRAM OF STUDIES

One of the very vital matters that will need to be faced by all communities that decide to establish junior high schools is the program of studies. This subject has received long and serious atten-

tion from the committee. A large number of programs of studies from all over the United States has been collected and examined. Two are given below. The first is the program of studies in Berkeley, Cal. This is of especial interest because *Berkeley was one of the first cities in the United States to establish a junior high school.* The committee presents the program followed in Chelsea, Mass., and also the program recommended by the Butte Survey. The committee has also ventured to suggest a program which is different in some particulars from any of the three. A typical program of the French *Lycée* and of the German *Gymnasium* and *Realgymnasium* have been given in order that it might be clearer that in this new experiment of the junior high school the United States is really coming into closer conformity to the most advanced educational ideas abroad

COURSE OF STUDY — INTERMEDIATE SCHOOLS

Berkeley School Department

SEVENTH, EIGHTH, AND NINTH GRADES

1916-1917

<i>Seventh Grade Required</i>	<i>Periods</i>	<i>Eighth Grade Required</i>	<i>Periods</i>	<i>Ninth Grade Required</i>	<i>Periods</i>
English.....	5	English.....	5	English.....	5
Language		Language		Language	
Composition		Composition		Composition	
Spelling		Spelling		Spelling	
Reading		Reading		Reading	
Literature		Literature		Literature	
Geography and World History through Bi- ography.....	5	American History and Citizenship.....	5		
Arithmetic.....	5	Arithmetic.....	5		
Cooking or Manual Training.....	2	Sewing or Manual Training.....	2		
Freehand Drawing...	2	Freehand Drawing...	2		
Music and Chorus...	2	Music and Chorus...	2	Music and Chorus....	2
<i>Optional</i>		<i>Optional</i>		<i>Elective</i>	
French — beginning ..	5	French — continued..	5	French — begin. or con.	5
German " ..	5	German " ..	5	German " " " ..	5
Latin " ..	5	Latin " ..	5	Latin " " " ..	5
Spanish " ..	5	Spanish " ..	5	Spanish " " " ..	5

<i>Optional</i>	<i>Optional</i>	<i>Optional</i>
Printing Arts..... 5	Printing Arts..... 5	Algebra — begin. or con. 5
Extra English..... 5	Extra English..... 5	Freehand Drawing..... 5
		Elem. Household Arts.. 5
		Elem. Household Sci- ence..... 5
		Manual Arts..... 5
		Printing Arts..... 5
		Pacific Coast History.. 5

NOTES. — The periods are forty minutes long. In those subjects which require preparation outside the recitation period five periods per week for a year constitute a course for which one credit is given.

A grammar school diploma is issued when a pupil has finished the required seventh and eighth grade course.

Pupils who complete any course in addition to amount required for a grammar school diploma will be allowed credit for such work toward graduation from the high school.

To enter the Berkeley High School a pupil must have secured a grammar school diploma and at least three high school credits.

COMMENT. — In two of its intermediate or junior high schools, Berkeley offers commercial work. Typewriting and Penmanship begin in the seventh grade. Bookkeeping and Stenography begin in last half of the eighth grade.

PROGRAM OF STUDIES IN CHELSEA JUNIOR HIGH SCHOOL

GENERAL COURSE

First Year (Seventh Grade)

<i>Required Subjects</i>	<i>Elective Subjects</i>
English — Literature, Language, Spelling	Select one of the following
Arithmetic	Latin — beginning
American History and Current Events	German — beginning
Geography	Spanish — beginning
Physiology and Hygiene	
Penmanship	
Drawing	
Music — Vocal	
Physical Training	
Manual Training	
Girls, Sewing	
Boys, Woodwork	

Second Year (Eighth Grade)

<i>Required Subjects</i>	<i>Elective Subjects</i>
English — Literature, Grammar, Spelling	Select two of the following
	Latin — continued

Required Subjects

Mathematics—Review of the essentials of Arithmetic (half year), Introduction to Algebra (half year)
 American History and Community Civics
 Science—Physiology and Hygiene (half year), Nature Study (half year)
 Drawing—Freehand or Mechanical
 Music—Vocal
 Physical Training
 Manual Training
 Girls, Sewing and Cooking
 Boys, Woodwork or Printing (after Sept. 1, 1917)

Elective Subjects

German—continued
 Spanish—continued
 Commercial Geography

*Third Year (Ninth Grade)**Required Subjects*

English—Literature, Composition, Spelling
 Mathematics—Algebra
 History—Ancient
 Science—Elementary
 Music—Vocal
 Physical Training

Elective Subjects

Select three of the following
 Latin—beginning or continued
 German—beginning or continued
 Spanish—beginning or continued
 Drawing—Freehand or Mechanical
 Manual Training
 Girls, Sewing or Cooking
 Boys, Woodwork or Printing (after Sept. 1, 1917)
 Bookkeeping

COMMERCIAL COURSE

*First Year (Seventh Grade)**Required Subjects*

English—Literature, Language, Spelling
 Arithmetic
 American History and Current Events
 Geography
 Physiology and Hygiene
 Penmanship
 Drawing
 Music—Vocal
 Physical Training
 Manual Training
 Girls, Sewing
 Boys, Woodwork

Elective Subjects

Select one of the following
 Spanish—beginning
 German—beginning

*Second Year (Eighth Grade)**Required Subjects*

English — Literature, Grammar, Spelling
 Mathematics — Review of the essentials of Arithmetic (half year) Introduction to Algebra (half year)
 American History and Community Civics
 Science — Physiology and Hygiene (half year)
 Commercial Geography (half year)
 Music — Vocal
 Physical Training
 Manual Training
 Girls, Sewing and Cooking
 Boys, Woodwork or Printing (after Sept. 1, 1917)

Elective Subjects

Select two of the following
 Spanish — continued
 German — continued
 Bookkeeping
 Stenography
 Drawing — Freehand or Mechanical
 Survey of Vocations

*Third Year (Ninth Grade)**Required Subjects*

English — Literature, Composition, Spelling
 Mathematics — Commercial Arithmetic
 History — Mexico, Central and South America
 Science — Elementary
 Music — Vocal
 Physical Training

Elective Subjects

Select three of the following
 Spanish — beginning or continued
 German — Beginning or continued
 Bookkeeping
 Stenography and Typewriting
 Drawing — Freehand or Mechanical
 Business Writing and Business Forms
 Manual Training
 Girls, Sewing and Cooking
 Boys, Woodwork or Printing (after Sept. 1, 1917)

INDUSTRIAL COURSE

*First Year (Seventh Grade)**Required Subjects*

English — Literature, Language, Spelling
 Arithmetic
 American History and Current Events
 Geography
 Physiology and Hygiene
 Penmanship
 Drawing
 Music — Vocal
 Physical Training

Elective Subjects

Select one of the following
 Spanish — beginning
 German — beginning

*Required Subjects**Elective Subjects*

Manual Training
Girls, Sewing
Boys, Woodwork

*Second Year (Eighth Grade)**Required Subjects**Elective Subjects*

English — Literature, Grammar, Spelling
Mathematics — Review of the essentials of Arithmetic (half year), Introduction to Algebra (half year)
American History and Community Civics
Science — Physiology and Hygiene (half year)
Commercial Geography (half year)
Music — Vocal
Drawing
Girls, Freehand
Boys, Mechanical
Manual Training
Girls, Sewing or Cooking
Boys, Woodwork and Printing (after Sept. 1, 1917)
Physical Training

Select two of the following
Spanish — continued
German — continued
Bookkeeping
Stenography
Survey of Vocations

*Third Year (Ninth Grade)**Required Subjects**Elective Subjects*

English — Literature, Composition, Spelling
Science — Elementary
Music — Vocal
Physical Training
Manual Training
Girls, Sewing and Cooking
Boys Woodwork and Printing (after Sept. 1, 1917)
Drawing
Girls, Freehand
Boys, Mechanical

Select three of the following
Spanish — beginning or continued
German — beginning or continued
Bookkeeping
Stenography and Typewriting
Business Writing and Business Forms
Algebra
Ancient History
History of Mexico, Central and South America

RECOMMENDED BY THE BUTTE SURVEY COMMISSION

I. GENERAL COURSE

Intended primarily for those intending to go to high school and to enter the classical or scientific courses

Seventh Grade

<i>Required Subjects</i>	<i>Periods</i>	<i>Elective Subjects</i>	<i>Periods</i>
English Literature and Composition.....	5	Select one	
U.S. History	5	Latin.....	5
Descriptive Geography.....	5	German.....	5
Arithmetic.....	5	Spanish.....	5
Physical Training.....	2	Bookkeeping and Business	
Drawing.....	2	Arithmetic.....	5
Music.....	2		
Cooking (girls).....	2		
Sewing ".....	2		
Manual Training (boys).....	4		

Eighth Grade

<i>Required Subjects</i>	<i>Periods</i>	<i>Elective Subjects</i>	<i>Periods</i>
English Literature and Composition.....	5	Select one	
U.S. History and Civics	5	Latin.....	5
General Science.....	3	German.....	5
Physiology and Hygiene.....	2	Spanish.....	5
Drawing.....	3	Bookkeeping and Business	
Music.....	2	Arithmetic.....	5
Physical Training.....	1	Mathematics:	
Cooking (girls).....	2	Elementary Algebra, 8B....	5
Sewing ".....	2	Constructive Geometry, 8A..	5
Manual Training (boys).....	4		

Ninth Grade

<i>Required Subjects</i>	<i>Periods</i>	<i>Elective Subjects</i>	<i>Periods</i>
English Literature and Composition.....	5	Select one	
Physical Geography.....	5	Latin.....	5
Music or Oral English.....	2	German.....	5
Physical Training.....	1	Spanish.....	5
		(Two languages only by special permission.)	
		Algebra.....	5
		Ancient History.....	5
		Drawing, Freehand or Mechanical.....	5
		Cooking or Sewing (girls).....	4
		Woodwork (boys).....	4

II. VOCATIONAL COURSE

Intended primarily for those not intending to go to the high school

Seventh Grade

<i>Required Subjects</i>	<i>Periods</i>	<i>Elective Subjects</i>	<i>Periods</i>
Same as General Course		Select one	
		German.....	5
		Spanish.....	5
		Bookkeeping and Business	
		Arithmetic.....	5

Eighth Grade

<i>Required Subjects</i>	<i>Periods</i>	<i>Elective Subjects</i>	<i>Periods</i>
English Literature and Composition.....	5	Select one	
U.S. History and Civics.....	5	German.....	5
General Science.....	3	Spanish.....	5
Physiology and Hygiene.....	2	Bookkeeping and Business	
Physical Training.....	1	Arithmetic.....	5
Freehand Drawing (girls).....	5	Mathematics:	
Cooking and Sewing (girls).....	10	Elementary Algebra, 8B.....	5
Mechanical Drawing (boys).....	5	Constructive Geometry, 8A..	5
Manual Training (boys).....	10	Music.....	2

Ninth Grade

<i>Required Subjects</i>	<i>Periods</i>	<i>Elective Subjects</i>	<i>Periods</i>
English Literature and Composition.....	5	Select three	
Physical Training.....	1	German.....	5
		Spanish.....	5
		General World History.....	5
		Physical Geography.....	5
		Music or Oral English.....	2
		Girls	
		Freehand Drawing.....	5
		Cooking or Sewing.....	5
		Elementary Chemistry.....	5
		Boys	
		Mechanical Drawing.....	5
		Elementary Physics.....	5
		Manual Training.....	5
		Both	
		Stenography.....	5
		Typewriting.....	5
		Business Practice.....	5

WEEKLY PROGRAM OF FRENCH LYCÉE

FIRST CYCLE

Length, four years: from the sixth to the third form inclusive

*Sixth Form*¹

<i>Division A</i>	<i>Hours</i>	<i>Division B</i>	<i>Hours</i>
French.....	3	French.....	5
Latin.....	7	Writing.....	1
Modern Languages.....	5	Modern Languages.....	5
History and Geography.....	3	History and Geography.....	3
Arithmetic.....	2	Arithmetic.....	4
Natural Science.....	1	Natural Science.....	2
Drawing.....	2	Drawing.....	2
	—		—
Total.....	23	Total.....	22

Fifth Form

French.....	3	French.....	5
Latin.....	7	Writing.....	1
Modern Languages.....	5	Modern Languages.....	5
History and Geography.....	3	History and Geography.....	3
Arithmetic.....	2	Mathematics and Mechanical Drawing.....	4
Natural Science.....	1	Natural Science.....	2
Drawing.....	2	Drawing.....	2
	—		—
Total.....	23	Total.....	22

Fourth Form

<i>Division A</i>	<i>Hours</i>	<i>Division B</i>	<i>Hours</i>
Ethics.....	1	Ethics.....	1
French.....	3	French.....	5
Latin.....	6	Modern Languages.....	5
Greek (optional).....	3	History and Geography.....	3
Modern Languages.....	5	Mathematics, Bookkeeping and Mechanical Drawing.....	5
History and Geography.....	3	Physics and Chemistry.....	2
Mathematics.....	2	Drawing.....	2
Natural Science.....	1		—
Drawing.....	2		—
	—	Total.....	23
Total	23 — 3 optional		

¹ It should be noted that the above program is for a boys' school and that the sixth form corresponds roughly to the sixth grade in United States.

Third Form

Ethics.....	1	Ethics.....	1
French.....	3	French.....	4
Latin.....	6	Civil Government and Common Law.....	1
Greek (optional).....	3	Modern Languages.....	5
Modern Languages.....	5	History and Geography.....	3
History and Geography.....	3	Mathematics.....	4
Mathematics.....	3	Physics and Chemistry.....	2
Drawing.....	2	Natural Science.....	1
		Bookkeeping.....	1
		Drawing.....	2
			1
			—
		Total.....	25
Total	23 — 3 optional		

FRANKFORT CURRICULA OF GYMNASIEN AND REALGYMNASIEN

	Common Elementary Course			Gymnasien							Realgymnasien						
	VI	V	IV	3B	3A	2B	2A	1B	1A	T	3B	3A	2B	2A	1B	1A	T
Religion	3	2	2	2	2	2	2	2	2	19	2	2	2	2	2	2	19
German and Historical Tales	4 } 1 } 5	3 } 1 } 5	4	3	3	3	3	3	3	31	3	3	3	3	3	3	31
Latin				10	10	8	8	8	7	51	8	8	6	6	5	5	38
Greek						8	8	8	8	32							
English												6	4	4	4	4	18
French	6	6	6	3	2	2	2	2	2	31	4	4	3	3	3	3	38
History and Geog.	2	2	6	3	4	2	2	2	3	26	4	4	3	3	3	3	30
Mathematics	5	5	5	4	4	3	3	3	3	35	4	4	4	4	5	5	42
Natural Science	2	2	3	2	2	2	2	2	2	19	3	3	3	3	4	5	30
Writing	2	2								4							4
Drawing		2	2	2	2					8	2	2	2	2	2	2	16
Totals	25	25	28	29	29	30	30	30	30	256	30	30	32	32	32	32	266

Brackets indicate that the time for subjects enclosed may be redistributed if desired.

To the above is added three hours gymnastics throughout all classes and two hours singing in VI and V.

PROGRAM OF STUDIES RECOMMENDED BY THE COMMITTEE

			<i>Required Subjects</i>			
<i>7th Grade</i>			<i>8th Grade</i>		<i>9th Grade</i>	
English.....	5		English.....	5	English.....	5
World History } through Biography } World Geography }	5		U.S. History with } related European } History, Com- } munity Civics, }	5	U.S. History, and } Government in } State and Nation }	5
Physiology and Hy- giene.....	3		General Science.....	4	General Science.....	4
Mathematics, I.....	5		Mathematics, II.....	5		
Drawing.....	2		Drawing.....	2	Drawing.....	2
Music.....	1		Music.....	1	Music.....	1
Physical Training....	2		Physical Training....	2	Physical Training....	2
			<i>Elective Subjects</i>			
Manual Training (Boys).....	4		Manual Training (Boys).....	4		
Sewing, $\frac{1}{2}$ year (Girls)	4		Sewing, $\frac{1}{2}$ year (Girls)	4		
Cooking, $\frac{1}{2}$ year (girls)	4		Cooking, $\frac{1}{2}$ year (Girls)	4		
French.....	4		French.....	4	French.....	4
German.....	4		German.....	4	German.....	4
Spanish.....	4		Spanish.....	4	Spanish.....	4
					Latin.....	5
					Mathematics, III....	5
					Manual Training (Boys).....	6
					Household Arts (Girls)	6
Agriculture.....	4		Agriculture.....	4	Agriculture.....	6
			Typewriting.....	3	Typewriting.....	3
			Business Arithmetic }		Bookkeeping.....	5
			Penmanship and }	5	Industries and Pro- } ducts.....	4
			Business Forms }			

SUGGESTED ACADEMIC CURRICULUM

			<i>Required Subjects</i>			
<i>7th Grade</i>			<i>8th Grade</i>		<i>9th Grade</i>	
English.....	5		English.....	5	English.....	5
World History } World Geography }	5		U.S. History } Community Civics }	5	U.S. History, and } Government in } State and Nation }	5
Physiology and Hy- giene.....	3		General Science.....	4	General Science.....	4
Mathematics, I.....	5		Mathematics, II.....	5	Mathematics, III....	5
Drawing.....	2		Drawing.....	2	Drawing.....	2
Music.....	1		Music.....	1	Music.....	1
Physical Training....	2		Physical Training....	2	Physical Training....	2

SUGGESTED CURRICULA

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Elective Subjects

French or German... 4	German or French... 4	French or German... 4
		Latin..... 5

SUGGESTED COMMERCIAL CURRICULUM

Required Subjects

<i>7th Grade</i>	<i>8th Grade</i>	<i>9th Grade</i>
English 5	English..... 5	English..... 5
World History } .. 5	U. S. History with } .. 5	U. S. History, and } .. 5
World Geography }	related European } History and Com- munity Civics }	Government in } State and Nation }
Physiology and Hy- giene..... 3	General Science..... 4	General Science..... 4
Mathematics, I..... 5	Mathematics, II..... 5	
Drawing..... 2	Drawing..... 2	Drawing..... 2
Music..... 1	Music..... 1	Music..... 1
Physical Training... 2	Physical Training... 2	Physical Training... 2
	Typewriting..... 2	Typewriting..... 2
	Business Arithmetic } .. 5	Bookkeeping..... 5
	Penmanship and } Business Forms }	Industries and Pro- ducts } .. 4

Elective Subjects

Spanish..... 4	Spanish..... 4	Spanish..... 4
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SUGGESTED INDUSTRIAL ARTS CURRICULUM

Required Subjects

<i>7th Grade</i>	<i>8th Grade</i>	<i>9th Grade</i>
English..... 5	English..... 5	English..... 5
World History } .. 5	U.S. History and } .. 5	U.S. History, and } .. 5
World Geography }	Community Civics }	Government in } State and Nation }
Physiology and Hy- giene..... 3	General Science..... 4	General Science..... 4
Mathematics, I..... 5	Mathematics, II..... 5	
Drawing..... 2	Drawing..... 2	Drawing..... 2
Music..... 1	Music..... 1	Music..... 1
Physical Training... 2	Physical Training... 2	Physical Training... 2
Manual Training	Manual Training	Manual Training
(boys)..... 4	(boys)..... 4	(boys)..... 6
Cooking ½ yr. (girls). 4	Cooking ½ yr. (girls). 4	Household Arts (girls) 6
Sewing " " " . 4	Sewing " " " . 4	

Elective Subjects

Agriculture..... 4	Agriculture..... 4	Agriculture..... 6
		Mathematics, III.... 5

The borrowed programs of studies are offered without discussion or criticism as examples of current practice in progressive school systems. Some very important features of the program of studies in junior high schools can best be brought out by an explanation and discussion of the suggested program. The first point to be noticed is the work in history. The courses in history in the French secondary schools seem to the committee to have much that is worthy of imitation. In this subject, the work is organized in three cycles. The pupil goes over the whole field of history three times, doing the work more thoroughly in each succeeding cycle. Under this plan no matter at what age the pupil leaves school, he will not be totally ignorant of great events of the world's history. According to the thought of the committee, the first cycle of historical study would include the first six grades. In these grades the whole field of history would be treated in story form, in biographies, and easy narrative. The second cycle would include the period of the junior high school. In the seventh grade five periods are given to world history. Although the work here should be of more advanced character than in the earlier period, the subject can best be presented to pupils of this age largely through the study of the great characters of the past who have been most influential in directing the current of the world's history and shaping its civilization. It is not supposed that this course will consist of the reading or study of isolated biographies, but rather that the important and essential facts of world history will be built around and interwoven with wisely selected biographies. It is of great importance that all of the work in history be closely correlated with geography. In this way each subject can be made to help the other.

In the eighth grade the suggested program offers American history with especial emphasis on those facts and conditions in European history which have had an important influence on the history and government of this country. American history is continued in the ninth grade. The community civics in the eighth grade and government in state and nation in the ninth are important courses. Very valuable assistance for the work in community civics may be gained from Bulletin 23, 1915, and Bulletin 28, 1916, U. S. Bureau of Education, and Circular 5, 1916, of the Massachusetts Department of Education. These documents should be in the hands of all teachers who conduct this work.

The third cycle of historical work will begin with the senior high school. The first year might appropriately be given to European

history to about 1750, the second to Modern European history, and the last year to American history and government.

Under the subject of mathematics, the recommendations which follow may at first sight seem radical. The usual practice in the teaching of mathematics in American schools has been to teach arithmetic alone through the eighth or ninth grade of the elementary school followed by algebra and demonstrational geometry respectively in the first and second year of the high school. In arithmetic a great variety of topics, some of considerable difficulty and little practical value, has been taught. This method of treating the general subject is pedagogically wrong because it does not arrange the topics of study in the order of natural difficulty and because it is impossible by this method to correlate arithmetic, algebra, and geometry so as to get the best results. None of the best educational systems of Europe follows any such method. The committee therefore would strongly urge that the mathematics be taught after the sixth grade in parallel courses rather than in tandem. The Association of Teachers of Mathematics in New England has recently received the report of a committee on the Status of Mathematics in Secondary Schools. Certain recommendations by that committee with regard to the curriculum have been appropriated in large part as the recommendations of this report. The above committee concludes that in six year high schools the mathematics of the first three grades (Junior High Schools) should include:

a. The essentials of arithmetic, omitting the less important denominate numbers and all intricate matters of commercial arithmetic which lie outside the possible experience even of teachers. Very thorough drill should be given in percentage, proportion, and their varied applications.

b. The elements of algebra in connection with such topics as are common to arithmetic, *e.g.*, L.C.M., G.C.D., square root; also the solution of simple equations of the first or second degree with graphical representations.

c. In geometry a considerable amount of informal geometry — constructive or intuitional — with varied problems in mensuration, the beginning of geometrical demonstration. To this extent mathematics should be a required subject. Enough should have been taken to test aptitude for further similar study or college preparation.

The above recommendations are incorporated in this report with the full realization that much constructive work must be done by individual teachers before courses in detail are worked out. In the suggested program of studies the committee has included two years of required mathematics according to this recommendation, but has made the third year elective.

In the modern foreign languages, an elective in French, German, or Spanish is offered. No two of these languages should be begun the same year. All of these languages should be taught by the direct or conversational method. As Latin will probably be taught by methods which have been used in secondary schools, it has not seemed wise to offer this subject earlier than the ninth grade.

The committee feels that the work in general science is of great importance and is worthy of the best thought of those responsible for the details of the courses in this subject in the junior high school. Despite the great advance that has been made in the general science courses as given in the past in the high schools of the country, much constructive work yet needs to be done. The work has been criticized as a hodge-podge which ill deserves the name of science. Too often the training or personal interest of the teacher, or of the writer of the textbook, has led to an undue emphasis on some special field of science. The course in general science ought to concern itself with an orderly and rational study of the pupils' environment. In this study the principles of the physical sciences are of primary importance because these principles are fundamental to all sciences. The pupil ought to study the phenomena of everyday life that he may understand them and apply the principles involved to new experiences. Such a study will bring a real gain in power, and with even fair skill on the part of the teacher can hardly fail to arouse genuine interest. In order to avoid misunderstanding, the committee would make it clear that it is not recommending simply a course of diluted physics and chemistry, but a new subject — the study of environment in its scientific aspects. The necessary limitations of this report make it impossible to enter into details, but two fields of great human interest which have hitherto generally been neglected in courses in general science may well receive some attention. Some of the important facts of meteorology are well within the grasp of pupils of junior high school age, and the phenomena of weather are not only of perennial interest to the average citizen but the underlying principles of these phenomena are closely connected with other matters which always receive attention in courses in general science. Probably no other part of our environment lends itself more readily to the project method of study. The other suggestion is that some attention be given to the study of micro-organisms. These have come to figure so largely in modern life that we cannot afford to ignore them entirely even in an elementary course.

The last suggestion with regard to the work in general science is that while its primary purpose may not be to lay the foundations for the subsequent study of the special sciences, such a foundation ought to be, at least, an incidental result.

The suggestions of the committee under the head of industrial arts differ from the usual practice in junior high schools in that a larger amount of time is given to the subject. This recommendation has been made because of the conviction that to limit this work to one or two periods per week is to diminish greatly its value even for prevocational purposes.

The *most fundamental* question, probably, which must be met in the framing of curricula is the question of differentiation. On the one hand, we have the varying needs and aptitudes of the pupils; on the other hand, there is the ever present danger of *wrong choices* and *mistaken decisions*. Everyone who has had experience in administering an elective plan of work in secondary schools knows how difficult it is to reach a wise decision as to the best line of work for many of the pupils. It is certainly more difficult to do this for the boy or girl in the seventh grade. It is of great importance that educational blind alleys be avoided. In other words, it is *important* that the pupil in the junior high school shall not be started on any curriculum of a content so different from the curricula of other pupils that he cannot make a change without serious loss when the mistake is evident. Moreover, it is well to bear in mind that the school owes a duty to society as well as to the pupil. If it is a legitimate function of the school to train a pupil to take well his part as a citizen in democratic society, then the school must give him the common knowledge and common ideals on which alone such society can safely rest. No school program should suggest to a pupil that he is not to go on with his education. Above all, the school program must not create cliques and classes and caste. It is because of these convictions that the junior high school program suggested above is intentionally conservative. It is designed to supply the pupil with interesting subjects of study which will help to hold his interest and keep him in school. It is also designed by wise options to test the possibilities of the pupil and eventually guide him into the right path. It is prevocational rather than vocational. Moreover, it contains for all pupils a large constant of study, especially in the first two years. It is in part for the sake of those who do not accept this view that several programs of differing character have been printed. In the actual administration of a junior high school in any given place,

it might be wise to distribute the required studies and electives in several suggested curricula, as is a quite common practice. In the cities where this is done, the most common curricula used are the academic or general, the commercial, and the manual and industrial arts. Three curricula of this character have been made a part of the suggested program of studies.

The general purpose which ought to be kept in mind in framing a program of studies for the secondary period has been set forth very clearly and forcefully by Superintendent Bunker in his Bulletin on the Reorganization of the Public School System. He says:

In this secondary period it is important that a survey of the chief departments of human knowledge be made before the individual settles down to an intensive study of lines which are intended to converge toward his future specialty. The work of the first cycle of this period, then, can well comprise the giving of courses in general science, general mathematics, general history, literature courses affording a start in the languages for those desiring language study, music, art, and a knowledge of personal and sex hygiene. . . . Such a survey extensive and popular rather than intensive and narrowly scholarly harmonizes completely with the natural impulses of those entering the period of adolescence, which demands change, variety, and human interest rather than completeness and logical arrangement. Again, by passing in procession before the student of this age the salient features of the important departments of knowledge opportunity will be given for the determination of individual aptitudes and the forming of interests which may prove permanent . . . and which also may completely modify the future course of the individual's development. Courses such as can be formulated from this point of view will provide an excellent topping off for those who find it impossible to continue their schooling beyond the end of the ninth or tenth year and for those who are able to remain throughout the last cycle of this period such courses will give an excellent introduction to the more intensive work which can and should be expected in the advanced years of secondary school training.

In the administration of the program of studies in junior high schools, four questions immediately present themselves:

1. What is the proper length for the period or exercise?
2. What is the proper length for the school day?
3. How shall pupils be admitted to the junior high school?
4. What shall be the relation of the junior high school to the senior high school?

The answers to the questionnaire show a wide variation with regard to the length of the day and period. The school day ranges from four hours to nine hours and a half and the number of periods from four to thirteen. There seems to be a decided tendency to increase both the length of the day and the period as compared with

the practice under the older form of organization. Sixty-one places out of one hundred and forty have a school day six hours or more in length. The length of periods varies from thirty minutes to one hour and three-quarters. Twenty-five places report periods of an hour or more in length. A considerable number of the junior high schools already have a six-hour day divided into six periods. This arrangement probably gives adequate time to do well the work of this school, and the periods are not too long if there is to be real supervision of study — a very important matter, especially in the seventh and eighth grades.

A common requirement for admission to the junior high school is the completion of the work of the preceding grades. This plan is modified in some communities by admitting over-age pupils who have not completed this requirement but who would probably profit by the opportunities of the junior high school. This modification commends itself to the committee.

The question of the relation between the junior and senior high schools presents some difficulties. It is important that the standard of the latter school be not lowered. It is highly important that no gap be created between these schools. On the other hand, as already pointed out in the earlier discussion of accelerant groups, there ought to be a chance for the really capable pupil to work at a speed commensurate with his abilities. The practice of promoting pupils by subjects leads logically to giving credit by subjects. If the credit or point system now in general use in secondary schools is extended to the junior high schools, it would seem to offer the best solution for the difficulties suggested. This will allow pupils to proceed through the program of studies at different rates and would make the promotion from the junior high to senior high essentially the same as the promotion between any other two grades of the secondary school system.

TEACHERS AND METHODS

A very important matter intimately connected with the plan of work is the subject of methods of teaching. This will present a real difficulty for a few years under the new organizations. It is of vital importance that the methods of the high school shall not be thrust upon the junior high school. It is equally important that the methods of the lower grades shall not be continued. A wise compromise between the two methods of teaching must be sought.

The developing individuality and mental traits of the pupil in early adolescence must be recognized by methods of presenting the subjects of study, and more may safely be left to the initiative of the pupil than in the lower grades; but at the same time the beginner in the junior high school must not be abruptly thrown on his own responsibility as he generally has been in the past on entrance to the high school. The teacher is an even more vital matter in the junior high school than anywhere else in the system. The normal schools and the colleges are already responding to the new demand and are training teachers who will be able to deal adequately with the problem. Until this time arrives, the most promising teacher would seem to be the college graduate who has had some experience in grade teaching. The essential thing is for the teacher to appreciate the purpose and meaning of the junior high school and be in cordial sympathy with the movement.

In order to help those who desire to study the literature of the junior high school, a brief bibliography is added. Few school reports have been included. These are so soon out of print that they are not a very profitable source of information. They differ so widely in real value and are now so numerous that to attempt to sort out those that make a genuine contribution to the subject of the junior high school seemed to the committee a rather thankless task. The list contains a considerable number of references to the so-called 6-6 plan of organization on account of the intimate relation which this plan bears to the junior high school. It also contains some references dealing with special subjects of the curricula. Brief comments to indicate the character or value of the article have been made in a few cases.

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