

## THE REORGANIZATION OF HIGH SCHOOL SCIENCE

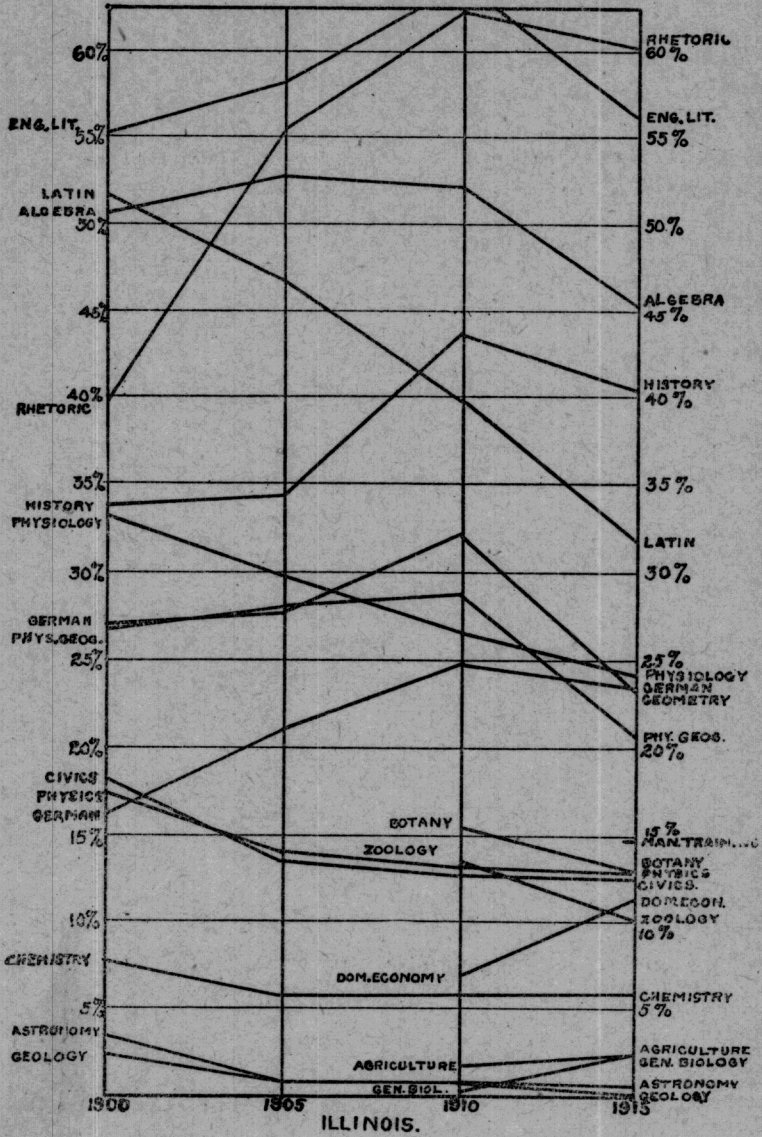
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### THESES

1. The day has passed when it was pertinent to ask whether high-school science needs reorganization: high-school science is now being reorganized.

2. The *laissez faire* attitude of teachers of the biological sciences and of earth science, has been a large factor in bringing about the marked decline in those sciences in the high school and the substitution of agriculture, domestic economy and general science in their places.

3. The shift from "pure science" to applied science has occurred chiefly in the first two years of the high-school science curriculum. This shift has been the result of a wide-spread conviction that the science generally offered in the first two years was scarcely worth while.



4. Standpatters in science are now face to face with a condition, not a theory; it behooves the adherent of "pure science" to wake up if they would have the best elements of the old regime preserved.

5. Reorganized science for the first two years of the high school should preserve the elements of historical significance and scholarship from the old and incorporate them with the elements of real worth and interest from the new.

6. The "ordinary" four-year high school is impossible of definition; it may have two teachers or it may have twenty teachers; it may be strictly rural, or it may be strictly urban in character.

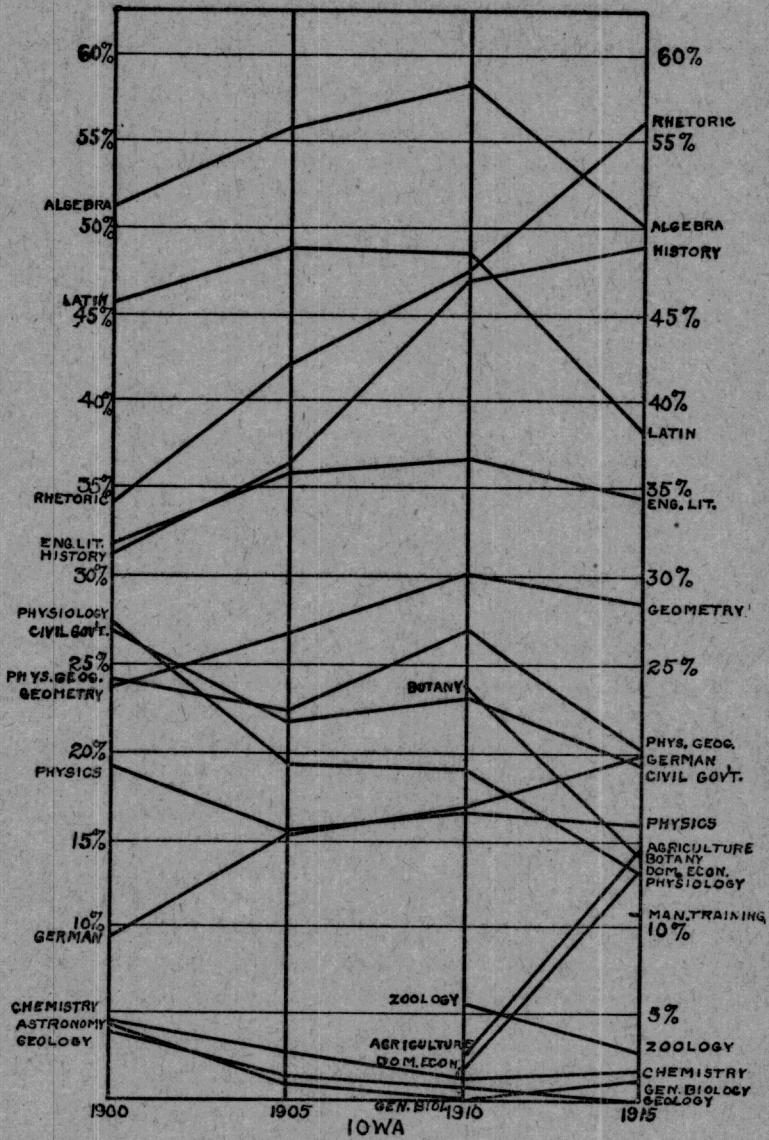
7. It is highly desirable that a nucleus of the science course shall be found which is equally applicable to high schools of every character; such a course must meet the needs of all classes of high school students.

8. Such a stem course is possible; it may as well be known as a two-year required course in general science. Such a course should be organized from the materials found in the pupil's environment; the first year's work should be found in a study of the home, the school and street leading from the home to the school and should be largely physical science material. The second year's work should consist of a study of an outer circle of environment, plant and animal life in the garden, the orchard and the field, together with personal hygiene and community sanitation.

9. In this stem course human welfare will be everywhere emphasized. Its purposes and methods will differ much from those of either the old special sciences or the new applied sciences.

10. This stem course must not be the only science offered in the high school; it must be followed by elective courses in agriculture and domestic economy and courses in the special sciences to the extent that the facilities of the school admits.

11. If the 6-3-3 plan is adopted the stem two-year course in general science may well be put in the eighth and ninth grades.



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12. Teachers of science in the high school should wake up to the situation and exert every possible influence to bring high-school science out of its present chaotic condition. They should agree upon some sort of stem course which can be generally adopted.

TABLE I.

Table I. Showing percent. increase (*italic face*) or decrease, during the 5 years from 1910 to 1915 in the percentages of students enrolled in the various high-school subjects:

<i>Subject</i>	<i>United States</i>	<i>Iowa</i>	<i>Wisconsin</i>	<i>Illinois</i>	<i>Ohio</i>
Physics .....	3%	4%	4%	3%	8%
Chemistry .....	7%	15%	17%	4%	10%
Physical Geography	25%	35%	33%	24%	18%
Physiology .....	38%	31%	30%	8%	44%
Botany .....	45%	39%	30%	17%	28%
Zoology .....	59%	54%	50%	22%	49%
Agriculture .....	54%	513%	24%	52%	231%
Domestic Economy.	241%	593%	237%	65%	340%

The rise and fall of high school subjects during the past five years.

