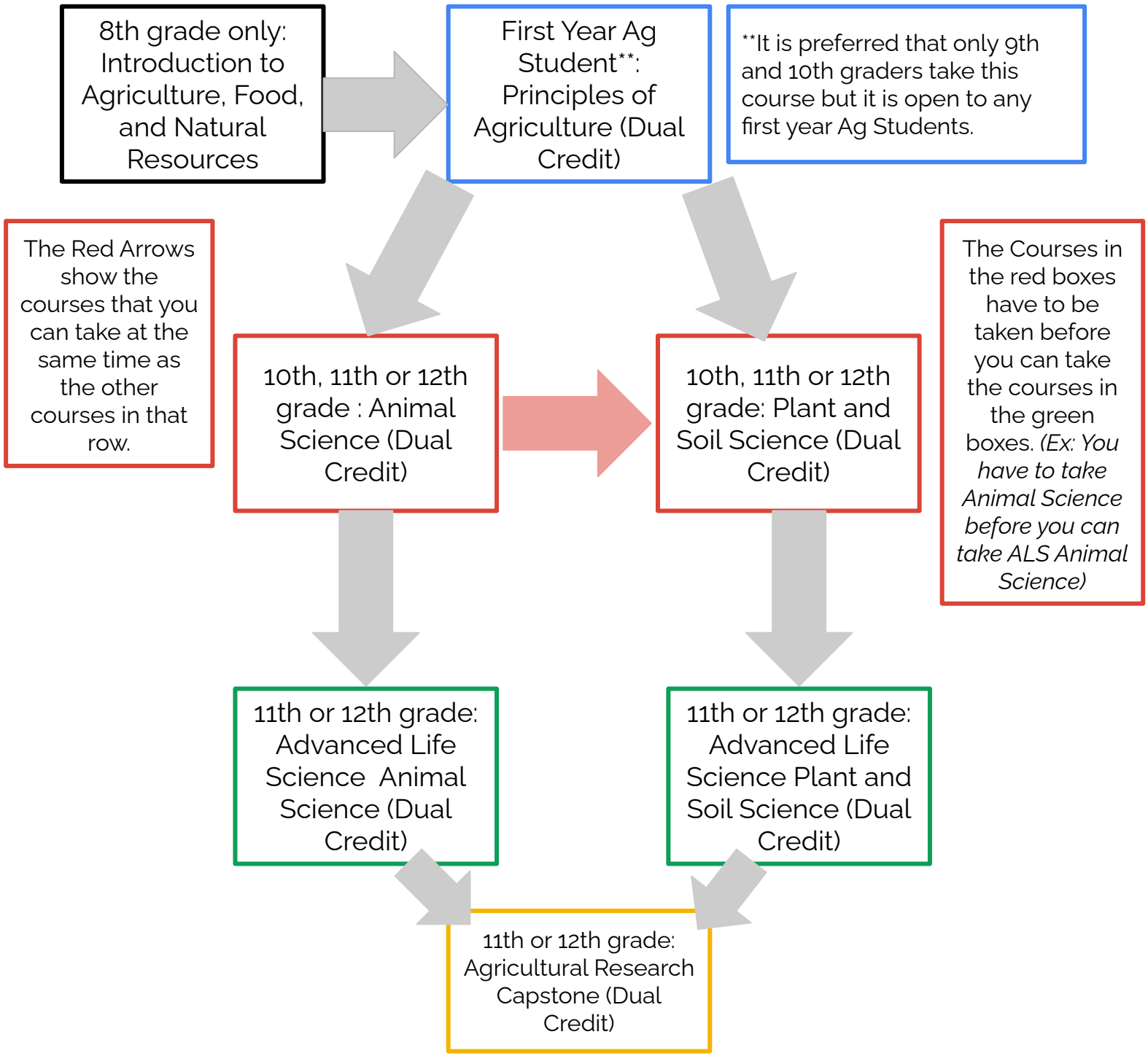
AgriScience Course Options

Use the graphic below to help you determine which course or courses you can take next year in the AgriScience pathway. See the following pages for detailed course descriptions or talk to your teacher for more information. We hope to see you all return next year!



Course Descriptions

Course Name	Science Credit (Y/N)	Description
8th Grade Only: Introduction to Agriculture, Food and Natural Resources	Yes 8th grade science credit and a High School elective credit.	Students participating in the Introduction to Agriculture, Food, and Natural Resources course experience hands-on activities, projects, and problems. Student experiences involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. The course is structured to enable all students to experience an overview of t*he fields of agricultural science and natural resources so that students may continue through a sequence of courses through high school.* Students investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.
First Year Ag Student: Principles of Agriculture (Dual Credit through Ivy Tech)	No Elective credit only	Principles of Agriculture is a two-semester course that will cover the diversity of the agricultural industry and agribusiness concepts. Students will develop an understanding and the role of agriculture in the United States and globally. Topics covered in the course range from animals, plants, food, natural resources, ag power, structures and technology, as well as careers. **Students must take this course before taking any other Ag Course!**
10th, 11th, and 12th Grade: Animal Science (Ivy Tech Dual Credit)	Yes	Animal Science is a two-semester program that provides students with an overview of the animal agriculture industry. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiences and projects. All areas that the students study may be applied to both large and small animals. Topics to be covered in the course include: history and trends in animal agriculture, laws and practices relating to animal agriculture, comparative anatomy and physiology of animals, biosecurity threats and interventions relating to animal and human safety, nutrition, reproduction, careers, leadership, and supervised agricultural experiences relating to animal agriculture.
10th, 11th, and 12th Grade: Plant and Soil Science (Ivy Tech Dual Credit)	Yes	Plant and Soil Science a two semester course that provides students with opportunities to participate in a variety of activities including laboratory and field work. Coursework includes hands-on learning activities that encourage students to investigate areas of plant and soil science. Students are introduced to the following areas of plant and soil science: plant growth, reproduction and propagation, photosynthesis and respiration, diseases and pests of plants and their management, biotechnology, the basic components and types of soil, soil tillage, and conservation.

Course Descriptions

Course Name	Science Credit (Y/N)	Description
11th, and 12th Grade: Advanced Life Science - Animal Science (Ivy Tech Dual Credit)	Yes Also qualifies as a quantitative reasoning course.	Advanced Life Science: Animals is a two-semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students will explore concepts related to history and trends in animal agriculture as related to animal welfare, husbandry, diseases and parasites, laws and practices relating to handling, housing, environmental impact, global sustainable practices of animal agriculture, genetics, breeding practices, biotechnology uses, and comparative knowledge of anatomy and physiology of animals used in animal agriculture.
11th, and 12th Grade: Advanced Life Science - Plant and Soil Science (Ivy Tech Dual Credit)	Yes Also qualifies as a quantitative reasoning course.	Advanced Life Science: Plants and Soils is a two semester course that provides students with opportunities to participate in a variety of activities including laboratory work. Students study concepts, principles, and theories associated with plants and soils. Knowledge gained enables them to better understand the workings of agricultural and horticultural practices. They recognize how plants are classified, grow, function, and reproduce. Students explore plant genetics and the use of plants by humans. They examine plant evolution and the role of plants in ecology. Students investigate, through laboratories and fieldwork, how plants function and how soil influences plant life
11th, and 12th Grade: Agricultural Research Capstone	No Elective credit only	Agricultural Research Capstone course includes extended laboratory, field, and literature investigations in one or more specialized agricultural science disciplines, such as animal, plant, food, natural resources, biotechnology, engineering, etc. Students enrolled in this course will apply scientific applications, concepts, principles, and design process to solve complex, real-world issues in agriculture. Students will become familiar with laboratory procedures used in an educational, research, or industrial setting. Students will complete an end-of-course project and presentation, such as a scientific research paper, agriscience fair project, or some other suitable presentation of their findings.