Year 8 RGS Rural Science – Autumn 1 – Food Provenance

Required knowledge for skills

Students will develop a sound understanding of agricultural practices, and appreciate the importance of food traceability and benefits farm assurance schemes. These skills will not only be applicable in agricultural contexts but also in various other fields requiring critical thinking, problem-solving, and effective communication.

Required knowledge for skills

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Username: RGSRural Password: Rural23
Go to appropriate year group and topic. Web pages and quizzes to support learning and revision.

How is this topic assessed?

Self assessment sheets, practical observations and test at the end of the topic

Emerging	Developing	Secure	Mastering	Extending
•Identify basic risks associated with handling eggs and farming tools. •Recognise the main parts of an egg. •Use basic farming tools like forks, hoes, and spades safely. •Explain the basic concept of food traceability.	• Manage simple risks in handling eggs and using farming tools. • Candle eggs to identify fertile ones with guidance. • Identify the main parts of an egg and their basic roles. • Explain why PPE is required and when to use it.	•Compare natural and artificial hatching processes. •Explain the importance and benefits of food traceability to local communities, animal welfare, and the environment. •Explain how food is traced from farm to supermarket.	•Safely and effectively use farming tools, explaining when each should be used. •Understand and explain farm assurance schemes and their benefits to consumers and producers. •Explain the importance of animal welfare and the environmental	•Use farm assurance standards to evaluate the animal welfare and environmental impact of a farm.

Year 8 RGS Rural Science – Autumn 2 – Crop and Livestock Production 1

Required knowledge for skills

Students will focus on crop husbandry and poultry production, emphasising practices that enhance plant and animal health. Students will develop analytical skills, practical skills, problem-solving, critical thinking, research skills , and environmental awareness.

Required knowledge for skills

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Go to appropriate year group and topic. Web pages and quizzes to support learning and revision.

How is this topic assessed?

Self assessment sheets, practical observations and test at the end of the topic

Emerging	Developing	Secure	Mastering	Extending
•Understand the basic importance of plant nutrients in growing healthy plants. •Recognise the concept of crop rotation and its basic benefits.	•State the function and sources of key macronutrients and micronutrients. •Identify the signs and symptoms of nutrient deficiency in plants. •Understand the basic concept of crop rotation and its benefits for soil health.	• Explain the importance of plant nutrients and their role in plant health. • Identify and explain the signs and symptoms of nutrient deficiency in plants. • Understand the concept of crop rotation and identify its benefits for soil and plant health..	•Analyse the connection between plant health, soil health, and the environment. •Evaluate the benefits of crop rotation in maintaining soil fertility and reducing pests. •Be able to state and describe different egg production systems and identify various poultry production systems.	•Design a crop rotation plan that maximises soil health and crop yield. •Identify and evaluate Farm Quality Assurance certifications and their significance in farming practices. •Analyse and propose solutions to improve poultry production systems, considering both intensive and extensive approaches. •Design their own comprehensive

Year 8 RGS Rural Science – Spring 1 – Livestock Production 2

Required knowledge for skills

Students will learn about livestock and plant production systems, building on their work on poultry production systems last term, this term will focus on the differences between beef and dairy cattle, types of pig production systems, growing plants from seeds and the process of lambing and the care of newborn lambs. Skills developed include research and presentation, practical farming techniques, and environmental awareness.

Required knowledge for skills

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Username: RGSRural Password: Rural23

Go to appropriate year group and topic. Web pages and quizzes to support learning and revision.

How is this topic assessed?

Self assessment sheets, practical observations and test at the end of the topic

Emerging	Developing	Secure	Mastering	Extending
• Recognise the basic differences between beef and dairy cattle. • Identify the essential conditions needed for seeds to germinate and grow.	•Understand the key differences and similarities between beef and dairy cattle production systems. •Describe the basic environmental impacts of Livestock production systems. •Identify the essential steps required to grow plants from seeds and care for young plants.	. • Explain the environmental impacts of Livestock production systems. •Understand and explain the various types of pig production systems and their advantages and disadvantages. •Develop practical skills in sowing seeds and caring for young plants.	•Analyse the impact of pig production systems on animal welfare and the environment. •Demonstrate research and presentation skills on cattle and pig production systems. •Understand the process of lambing, recognise key signs of imminent birth, and learn to assist during lambing.	•Evaluate the advantages and disadvantages of different pig production systems in depth, considering environmental and welfare impacts. • Describe the the care required for newborn lambs and explain the importance of proper farm management and animal husbandry practices.

Year 8 RGS Rural Science – Spring 2 Sustainable Agriculture

Required knowledge for skills

This term, students will learn about sustainable agriculture by studying water management, composting, and modern farming techniques like aquaponics and hydroponics. They will develop analytical skills to understand water's role in agriculture, practical skills in composting and gardening, problem-solving abilities for pest management and water conservation, and critical thinking to compare farming systems.

Required knowledge for skills

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Username: RGSRural Password: Rural23
Go to appropriate year group and topic. Web pages and quizzes to support learning and revision.

How is this topic assessed?

Self assessment sheets, practical observations and test at the end of the topic

Emerging	Developing	Secure	Mastering	Extending
•Recognise the role of water in agricultural practices. •Identify basic components of composting and understand its basic concept.	•Understand the impact of water management on plant growth. •Explain how compost is made and identify its advantages. •Recognise the basic differences between aquaponics and hydroponics.	•Discuss the importance of water in agricultural practices and its effect on plant growth. •Describe the composting process and list the benefits of using compost in gardening. •Explain the differences between aquaponics and hydroponics, including their benefits. •Identify the key components of both aquaponics and hydroponics systems.	•Analyse the effects of different water management techniques on plant growth and yield. •Demonstrate a thorough understanding of composting, including how to start and maintain a compost system. •Compare and contrast aquaponics and hydroponics, explaining the benefits and drawbacks of each. •Describe the key components and setup of both aquaponics and	•Evaluate the impact of various water management practices on sustainable farming and propose improvements. •Design and an aquaponics or hydroponics system, highlighting the key components and their functions. •Research and discuss advanced sustainable farming techniques related to water conservation, and present innovative solutions.

Year 8 RGS Rural Science – Summer 1 – Agroecology

Required knowledge for skills

Students will study agroforestry, agroecology, and sustainable agriculture, focusing on the requirements and techniques for growing vegetables. Students will develop practical gardening skills, analytical abilities to evaluate agricultural practices, and a comprehensive understanding of sustainable agriculture principles.

Required knowledge for skills

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Username: RGSRural Password: Rural23

Go to appropriate year group and topic. Web pages and quizzes to support learning and revision.

How is this topic assessed?

Self assessment sheets, practical observations and test at the end of the topic

Emerging	Developing	Secure	Mastering	Extending
•Identify a few common gardening tools used for basic tasks like planting and watering. •Understand the basic concept of agroforestry.	•Identify common gardening tools and their uses for tasks like weeding and watering. •Recognise the importance of regular maintenance tasks such as weeding and watering. •Understand the basic benefits of agroforestry.	•Explain the importance of regular maintenance tasks in promoting plant growth. •Identify common vegetable diseases and pests and basic methods to control them. •Understand the concept of agroforestry and identify its benefits. •Describe the basic concepts of agroecology and key principles of sustainable agriculture.	• Analyse the requirements for growing vegetables and how different conditions affect growth. • Explain the role of regular maintenance tasks in ensuring healthy plant growth and preventing diseases. • Explore various techniques used in agroforestry and their benefits. • Understand and apply the basic	•Research and implement advanced methods for controlling vegetable diseases and pests. •Critically analyse various agroforestry techniques and their long-term benefits for agriculture. •Develop and implement strategies for sustainable agriculture based on agroecological principles. •Investigate the role of biodiversity in agricultural systems and propose ways to enhance it

Year 8 RGS Rural Science – Summer 2 – Crop Husbandry & Pest Management

Required knowledge for skills

Students will build on their crop husbandry knowledge & skills. Additionally, students will recognise common vegetable diseases and pests and learn basic control methods, including Integrated Pest Management (IPM). Throughout the term, students will develop practical gardening skills, problem-solving abilities, and an understanding of sustainable agricultural practices

Required knowledge for skills

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Username: RGSRural Password: Rural23

Go to appropriate year group and topic. Web pages and quizzes to support learning and revision.

How is this topic assessed?

Self assessment sheets, practical observations and test at the end of the topic

Emerging	Developing	Secure	Mastering	Extending
• Recognise the basic requirements for growing vegetables, such as soil, water, and sunlight. • Identify a few common gardening tools like a watering can and trowel. • Understand the need for regular maintenance tasks like watering and weeding.	•Identify the essential needs for vegetable growth, including nutrients, water, and sunlight. •Recognise common gardening tools and their basic uses. •Explain the importance of regular maintenance tasks in plant growth. •Recognise common vegetable diseases and pests.	•Explain the requirements for growing vegetables, including soil, nutrients, water, and sunlight. •Identify common vegetable diseases and pests and basic methods to control them. •Understand the concept of Integrated Pest Management (IPM) and its benefits. •Identify different components of Integrated Pest Management.	•Identify and manage common vegetable diseases and pests using basic methods. •Explain the benefits of Integrated Pest Management (IPM) and identify its different components.	•Research and apply advanced methods for controlling vegetable diseases and pests. •Analyse and propose strategies for implementing Integrated Pest Management (IPM) in a vegetable garden. •Describe the benefits of Integrated Pest Management for sustainable agriculture.